

IMPORTANT NOTICE

You must read the following before continuing. The following applies to the preliminary offering memorandum attached to this e-mail, and you are therefore advised to read this carefully before reading, accessing or making any other use of the preliminary offering memorandum. In accessing the preliminary offering memorandum, you agree to be bound by the following terms and conditions, including any modifications to them, any time you receive any information from us as a result of such access.

This preliminary offering memorandum has been prepared in connection with the offer and sale of the Additional Notes described therein. The preliminary offering memorandum and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other person.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY THE ADDITIONAL NOTES DESCRIBED IN THE ATTACHED PRELIMINARY OFFERING MEMORANDUM IN ANY JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE ADDITIONAL NOTES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE “**U.S. SECURITIES ACT**”), OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTION. THE ADDITIONAL NOTES ARE BEING OFFERED AND SOLD: (1) WITHIN THE UNITED STATES IN RELIANCE ON RULE 144A UNDER THE U.S. SECURITIES ACT (“**RULE 144A**”) ONLY TO PERSONS THAT ARE QUALIFIED INSTITUTIONAL BUYERS (EACH, A “**QIB**”), WITHIN THE MEANING OF RULE 144A, ACTING ON THEIR OWN ACCOUNT OR FOR THE ACCOUNT OF ANOTHER QIB; AND (2) OUTSIDE THE UNITED STATES TO PERSONS OTHER THAN U.S. PERSONS (AS DEFINED IN REGULATION S UNDER THE U.S. SECURITIES ACT (“**REGULATION S**”)) IN AN OFFSHORE TRANSACTION IN RELIANCE ON REGULATION S. THE ATTACHED PRELIMINARY OFFERING MEMORANDUM MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER AND, IN PARTICULAR, MAY NOT BE FORWARDED TO ANY U.S. PERSON UNLESS SUCH PERSON IS A QIB IN ACCORDANCE WITH RULE 144A. DISTRIBUTION OR REPRODUCTION OF THE ATTACHED PRELIMINARY OFFERING MEMORANDUM IN WHOLE OR IN PART IS UNAUTHORIZED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE U.S. SECURITIES ACT OR THE APPLICABLE SECURITIES LAWS OF OTHER JURISDICTIONS.

Confirmation of your representation: In order to be eligible to receive the attached preliminary offering memorandum or to make an investment decision with respect to the Additional Notes described therein, (1) each prospective investor in respect of the Additional Notes being offered pursuant to Rule 144A must be a QIB, and (2) each prospective investor in respect of the Additional Notes being offered outside the United States in an offshore transaction pursuant to Regulation S must be a person other than a U.S. person. By accepting this e-mail and accessing the preliminary offering memorandum, you shall be deemed to have represented to us that (1) in respect of the Additional Notes being offered pursuant to Rule 144A, you are (or the person you represent is) a QIB, and that the e-mail address to which, pursuant to your request, the attached preliminary offering memorandum has been delivered by electronic transmission is utilized by a QIB, (2) in respect of the Additional Notes being offered outside of the United States in an offshore transaction pursuant to Regulation S, you are (or the person you represent is) a person other than a U.S. person, and that the e-mail address to which, pursuant to your request, the attached preliminary offering memorandum has been delivered by electronic transmission is utilized by a person other than a U.S. person, (3) you are a person to whom the attached preliminary offering memorandum may be delivered in accordance with the restrictions set out in “*Notice to Investors*”, “*Notice to EEA Investors*”, “*Prohibition of Sales to EEA Retail Investors*” and “*Plan of Distribution—Selling and Transfer Restrictions*” in the attached preliminary offering memorandum, and (4) you consent to the delivery of such preliminary offering memorandum by electronic transmission. You are reminded that the preliminary offering memorandum has been delivered to you on the basis that you are a person into whose possession the preliminary offering memorandum may be lawfully delivered and you may not, nor are you authorized to, deliver the preliminary offering memorandum to any other person or make copies of the preliminary offering memorandum.

The preliminary offering memorandum has not been approved by an authorized person in the United Kingdom. No person may communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the “**FSMA**”)) received by it in connection with the issue or sale of the securities other than in instances in which Section 21(1) of the FSMA does not apply to us.

Solely for the purposes of the product approval process of each joint bookrunner, the target market assessment in respect of the Additional Notes described in the attached preliminary offering memorandum has led to the conclusion that: (i) the target market for the Additional Notes is eligible counterparties and professional clients only, each as defined in Directive 2014/65/EU (as amended, “**MiFID II**”); and (ii) all channels for distribution of such Additional Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending such Additional Notes (a “**distributor**”) should take into consideration the manufacturers’ target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of such Additional Notes (by either adopting or refining the manufacturers’ target market assessment) and determining appropriate distribution channels.

The Additional Notes described in the attached preliminary offering memorandum are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (“**EEA**”). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; (ii) a customer within the meaning of Directive 2016/97/EU (as amended or superseded, the “**Insurance Distribution Directive**”), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Directive 2003/71/EC (as amended or superseded, the “**Prospectus Directive**”). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the “**PRIIPs Regulation**”) for offering or selling the Additional Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Additional Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

The preliminary offering memorandum has been sent to you in an electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently neither (i) Progroup AG or any of its affiliates, nor (ii) the Initial Purchaser named in the preliminary offering memorandum or any person who controls any of them or any director, officer, employee or agent of them or affiliate of any such person accepts any liability or responsibility whatsoever in respect of any alterations to the preliminary offering memorandum distributed to you in electronic format.

This e-mail and the attached document are intended only for use by the addressee named herein and may contain legally privileged and/or confidential information. If you are not the intended recipient of this e-mail, you are hereby notified that any dissemination, distribution or copying of this e-mail and the attached document is strictly prohibited. If you have received this e-mail in error, please immediately notify the sender by reply e-mail and permanently delete all copies of this e-mail and destroy any printouts of it.

SUBJECT TO COMPLETION, DATED JUNE 11, 2019

PRELIMINARY OFFERING MEMORANDUM

NOT FOR GENERAL DISTRIBUTION
IN THE UNITED STATES



€150,000,000 3.000% Senior Secured Notes due 2026

Progroup AG, organized as a stock corporation (*Aktiengesellschaft*) under German law (the “**Issuer**”), is offering (the “**Offering**”) €150,000,000 aggregate principal amount of 3.000% senior secured notes due 2026 (the “**Additional Notes**”) to refinance the Issuer’s existing €150,000,000 aggregate principal amount of senior secured floating rate notes due 2024 (the “**Floating Rate Notes**”). The Additional Notes will be issued with, and governed by, the conditions of issue (the “**Conditions of Issue**”) governing the Issuer’s existing €450,000,000 aggregate principal amount of 3.000% senior secured notes due 2026 (the “**Existing Notes**”), and together with the Additional Notes, the “**Notes**”). The Additional Notes will constitute an increase (*Aufstockung*) and will have the same terms as the Existing Notes in all respects and will be consolidated with and form a single series (*Gesamtemission*) with the Existing Notes for all purposes, including, without limitation, waivers, amendments, redemptions and offers to purchase.

Any Additional Notes issued pursuant to Regulation S (“**Regulation S**”) under the U.S. Securities Act of 1933, as amended (the “**U.S. Securities Act**”) will share the same international securities identification number (ISIN) and the same common code as the Existing Notes issued pursuant to Regulation S, and will be fungible with the Existing Notes issued pursuant to Regulation S as of their issuance. Any Additional Notes issued pursuant to Rule 144A (“**Rule 144A**”) under the U.S. Securities Act will initially have a separate ISIN and common code from the Existing Notes issued pursuant to Rule 144A, until the termination of certain U.S. selling restrictions one year after the issue date of the Additional Notes. After the expiration of this one year period, the Additional Notes issued pursuant to Rule 144A and the Existing Notes issued pursuant to Rule 144A will share the same ISIN and common code as the Existing Notes issued pursuant to Rule 144A, and will become fungible with the Existing Notes issued pursuant to Rule 144A.

Interest on the Additional Notes will be deemed to have accrued from March 31, 2019 and will be payable semi-annually in arrears on March 31 and September 30 of each year, commencing on September 30, 2019. The Additional Notes will mature on March 31, 2026.

The Issuer may redeem all or part of the Notes on or after March 31, 2021, at the redemption prices set out in this offering memorandum. Prior to March 31, 2021, the Issuer may redeem, at its option, all or part of the Notes at a redemption price equal to 100% of the principal amount thereof, plus accrued and unpaid interest and Additional Amounts (as defined herein), if any, plus the Applicable Premium (as defined herein). In addition, prior to March 31, 2021, the Issuer may also redeem at its option up to 35% of the original principal amount of the Notes with the net cash proceeds from certain equity offerings at a redemption price equal to 103.000% plus accrued and unpaid interest, if any, provided that at least 65% of the original principal amount of the Notes remains outstanding after the redemption date. Upon the occurrence of certain events constituting a change of control, the Issuer may be required to make an offer to repurchase all of the Notes at a redemption price equal to 101% of the principal amount thereof, plus accrued and unpaid interest and Additional Amounts (as defined herein), if any. In the event of certain developments affecting taxation, we may redeem all, but not less than all, of the Notes.

The Additional Notes will be governed by German law and will constitute senior obligations of the Issuer. The Existing Notes and all obligations under the Super Senior Revolving Credit Facility and the Existing Senior Secured Facilities (each as defined herein) are, and the Additional Notes and the New Senior Secured Facilities (as defined herein) will be, secured by first-ranking liens over the Collateral (as defined below) (although any liabilities in respect of obligations under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities (each as defined herein) that are secured by the Collateral will receive priority over the Additional Notes, the Existing Notes and obligations under the Existing Senior Secured Facilities and New Senior Secured Facilities with respect to any proceeds received upon any enforcement action over the Collateral). The Additional Notes, the Existing Notes and all obligations under the Existing Senior Secured Facilities and the New Senior Secured Facilities will rank *pari passu* among themselves and equal in right of payment with all existing and future obligations of the Issuer that are not subordinated in right of payment to the Additional Notes, the Existing Notes and obligations under the Existing Senior Secured Facilities and the New Senior Secured Facilities, will be effectively subordinated to all existing and future indebtedness of the Issuer that is secured by property and assets that do not secure the Additional Notes, the Existing Notes and obligations under the Existing Senior Secured Facilities and the New Senior Secured Facilities, to the extent of the value of the property and assets securing such indebtedness, will rank senior in right of payment to any existing and future indebtedness of the Issuer that is subordinated in right of payment to the Additional Notes, the Existing Notes and obligations under the Existing Senior Secured Facilities and the New Senior Secured Facilities, and will be structurally subordinated to all existing and future indebtedness of the subsidiaries of the Issuer that are not Guarantors (as defined below).

The Existing Notes are, and the Additional Notes will be, guaranteed (the “**Guarantees**”) on a senior basis by certain subsidiaries of the Issuer (the “**Guarantors**”). The Guarantors also guarantee the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and the New Senior Secured Facilities on a *pari passu* basis. The Existing Notes and all obligations under the Super Senior Revolving Credit Facility and the Existing Senior Secured Facilities are, and the Additional Notes and New Senior Secured Facilities will be, secured by first-ranking liens over (i) the shares of the Issuer, Progroup Board S.A.S. and each Guarantor; (ii) certain real property; (iii) certain bank accounts of the Issuer; and (iv) certain fixed and other assets (the “**Collateral**”) as described in more detail under “*Description of the Notes—General—Security; Release of Collateral*”. The Guarantees and the security interests over the Collateral will be subject to certain significant contractual and legal limitations or subject to certain defenses under applicable law. See “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*” and “*Risk Factors—Risks Related to the Notes—Each Guarantee and the Collateral will be subject to certain limitations on enforcement and may be limited by applicable laws or subject to certain defenses that may limit its validity and enforceability*”. The Guarantees and the security interests may be released under certain circumstances. See “*Risk Factors—Risks Related to the Notes—There are circumstances other than repayment or discharge of the Notes under which the Collateral and the Guarantees may be released automatically, without your consent or the consent of the Holders’ Representative*”, “*Description of Certain Financing Arrangements—Intercreditor Agreement*” and “*Description of the Notes—General—Security; Release of Collateral*”.

This offering memorandum includes information on the terms of the Additional Notes and the Guarantees, including with regard to redemption and repurchase prices, guarantees, covenants and transfer restrictions. The Additional Notes will be represented by global notes deposited with Clearstream Banking AG, Frankfurt am Main, Germany (“**Clearstream Banking**”). Definitive notes representing individual Additional Notes will not be issued. Transfer of the Additional Notes will be subject to the rules of Clearstream Banking and the terms of a book entry registration agreement (“**Book Entry Registration Agreement**”) among Clearstream Banking and the Issuer with respect to the Notes. The Additional Notes will be issued in denominations of €1,000 and will be transferable only in minimum aggregate principal amounts of €100,000 and integral multiples of €1,000 in excess thereof. The Additional Notes will be ready for delivery, in book entry form only, on or around , 2019.

Application will be made to The International Stock Exchange Authority Limited (the “**Authority**”) for the listing of and permission to deal in the Additional Notes on the Official List of The International Stock Exchange (the “**Exchange**”). There is no assurance that the Additional Notes will be listed on the Official List of the Exchange, that such permission to deal in the Additional Notes will be granted, or that such listing will be maintained.

Investing in the Additional Notes involves a high degree of risk. See “**Risk Factors**” beginning on page 26.

The Additional Notes and the Guarantees have not been, and will not be, registered under the U.S. Securities Act of 1933, as amended (the “**U.S. Securities Act**”) or the securities law of any other jurisdiction. Accordingly, the Additional Notes and the Guarantees are being offered and sold only to qualified institutional buyers (“**QIBs**”) in reliance on Rule 144A under the U.S. Securities Act (“**Rule 144A**”) and to persons outside of the United States in reliance on Regulation S under the U.S. Securities Act (“**Regulation S**”). Prospective purchasers are hereby notified that the seller of the Additional Notes and the Guarantees may be relying on the exemption from the registration requirements under the U.S. Securities Act provided by Rule 144A. See “*Notice to Investors*”, “*Notice to EEA Investors*”, “*Prohibition of Sales to EEA Retail Investors*” and “*Transfer Restrictions*” for additional information about eligible offerees and transfer restrictions.

Issue Price: % plus accrued interest, if any, from March 31, 2019.

Sole Global Coordinator and Joint Bookrunner

Deutsche Bank

Joint Bookrunners

Commerzbank

Goldman Sachs International

HSBC

The date of this offering memorandum is , 2019.

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NOTICE TO INVESTORS

You should rely only on the information contained in this offering memorandum. Neither the Issuer nor the Joint Bookrunners listed on the cover page (and each as defined below) has authorized anyone to provide you with any information or represent anything about the Issuer, its financial results or this Offering that is not contained in this offering memorandum. If given or made, any such other information or representation should not be relied upon as having been authorized by the Issuer or any of the Joint Bookrunners. None of the Issuer nor the Joint Bookrunners is offering the Additional Notes in any jurisdiction where this Offering is not permitted. You should not assume that the information contained in this offering memorandum is accurate as of any date other than the date on the front cover of this offering memorandum.

THE ADDITIONAL NOTES AND THE GUARANTEES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE U.S. SECURITIES ACT AND MAY NOT BE OFFERED OR SOLD IN THE UNITED STATES OR TO U.S. PERSONS UNLESS REGISTERED UNDER THE U.S. SECURITIES ACT, OR AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE U.S. SECURITIES ACT IS AVAILABLE. SEE “PLAN OF DISTRIBUTION” AND “TRANSFER RESTRICTIONS”. INVESTORS SHOULD BE AWARE THAT THEY MAY BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME. PROSPECTIVE PURCHASERS ARE HEREBY NOTIFIED THAT THE SELLER OF ANY SECURITY MAY BE RELYING ON THE EXEMPTION FROM THE PROVISIONS OF SECTION 5 OF THE U.S. SECURITIES ACT PROVIDED BY RULE 144A UNDER THE U.S. SECURITIES ACT.

No dealer, salesperson or other person has been authorized to give any information or to make any representation not contained in this offering memorandum and, if given or made, any such information or representation must not be relied upon as having been authorized by the Issuer, any of its affiliates or Deutsche Bank AG, London Branch (the “**Sole Global Coordinator**”) or Commerzbank Aktiengesellschaft, Goldman Sachs International and HSBC Bank plc (each a “**Joint Bookrunner**” and together with the Sole Global Coordinator, the “**Joint Bookrunners**” or the “**Initial Purchasers**”). This offering memorandum does not constitute an offer of any securities other than those to which it relates or an offer to sell, or a solicitation of an offer to buy, to any person in any jurisdiction where such an offer or solicitation would be unlawful. Neither the delivery of this offering memorandum nor any sale made under it shall, under any circumstances, create any implication that there has been no change in the affairs of the Issuer since the date of this offering memorandum or that the information contained in this offering memorandum is correct as of any time subsequent to that date.

By receiving this offering memorandum, investors acknowledge that they have had an opportunity to request for review, and have received, all additional information they deem necessary to verify the accuracy and completeness of the information contained in this offering memorandum. Investors also acknowledge that they have not relied on the Initial Purchasers in connection with their investigation of the accuracy of this information or their decision whether to invest in the Additional Notes. The contents of this offering memorandum are not to be considered legal, business, financial, investment, tax or other advice. Prospective investors should consult their own counsel, accountants and other advisors as to legal, business, financial, investment, tax and other aspects of a purchase of the Additional Notes. In making an investment decision, investors must rely on their own examination of the Issuer and their respective affiliates, the terms of the offering of the Additional Notes and the merits and risks involved.

This Offering is being made in reliance upon exemptions from registration under the U.S. Securities Act for an offer and sale of securities that does not involve a public offering. The Additional Notes and the Guarantees have not been registered with, recommended by or approved by the U.S. Securities and Exchange Commission (the “**SEC**”) or any other U.S. federal, state or foreign securities commission or regulatory authority, nor has any such commission or regulatory authority reviewed or passed upon the accuracy or adequacy of this offering memorandum. Any representation to the contrary is a criminal offense.

This offering memorandum is being provided for informational use solely in connection with their consideration of the purchase of the Additional Notes (1) to QIBs as defined in Rule 144A under the U.S. Securities Act, and (2) to non-U.S. persons in offshore transactions in reliance on Regulation S under the U.S. Securities Act.

The Initial Purchasers reserve the right to withdraw this Offering at any time and to reject any commitment to subscribe for the Additional Notes, in whole or in part. The Initial Purchasers also reserve

the right to allot less than the full amount of Additional Notes subscribed by investors. The Initial Purchasers and certain related entities may acquire a portion of the Additional Notes for their own account.

The laws of certain jurisdictions may restrict the distribution of this offering memorandum. Furthermore, they are subject to restrictions on transferability and resale and may not be transferred or resold except as permitted under the U.S. Securities Act and any other applicable federal, state or foreign securities laws pursuant to registration or exemption therefrom. Persons into whose possession this offering memorandum or any of the Additional Notes come must inform themselves about and observe any such restrictions. None of the Issuer, the Initial Purchasers or their respective representatives is making any representation to any offeree or any purchaser of the Additional Notes regarding the legality of any investment in the Additional Notes by such offeree or purchaser under applicable investment or similar laws or regulations. For a further description of certain restrictions on the offering and sale of the Additional Notes and the distribution of this offering memorandum, see “*Notice to EEA Investors*”, “*Prohibition of Sales to EEA Retail Investors*” and “*Transfer Restrictions*”.

To purchase the Additional Notes, investors must comply with all applicable laws and regulations in force in any jurisdiction in which investors purchase, offer or sell the Additional Notes or possess or distribute this offering memorandum. Investors must also obtain any consent, approval or permission required by such jurisdiction for investors to purchase, offer or sell any of the Additional Notes under the laws and regulations in force in any jurisdiction to which investors are subject. None of the Issuer, its respective affiliates or the Initial Purchasers will have any responsibility therefore.

No action has been taken by the Initial Purchasers, the Issuer or any other person that would permit an offering of the Additional Notes or the circulation or distribution of this offering memorandum or any offering material in relation to the Issuer or its affiliates or the Additional Notes in any country or jurisdiction where action for that purpose is required.

The Issuer accepts responsibility for the information contained in this offering memorandum. To the best of the knowledge and belief of the Issuer (having taken reasonable care to ensure that such is the case), the information contained in this offering memorandum is in accordance with the facts in all material respects and does not omit anything likely to affect the import of such information in any material respect. The Issuer accepts responsibility accordingly.

IN CONNECTION WITH THIS OFFERING, DEUTSCHE BANK AG, LONDON BRANCH (THE “STABILIZING MANAGER”) (OR PERSONS ACTING ON BEHALF OF THE STABILIZING MANAGER) MAY OVER-ALLOT ADDITIONAL NOTES OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE ADDITIONAL NOTES AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, THERE IS NO ASSURANCE THAT THE STABILIZING MANAGER (OR PERSONS ACTING ON BEHALF OF THE STABILIZING MANAGER) WILL UNDERTAKE STABILIZATION ACTION. ANY STABILIZATION ACTION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE FINAL TERMS OF THE OFFER OF THE ADDITIONAL NOTES IS MADE AND, IF BEGUN, MAY BE ENDED AT ANY TIME, BUT MUST END NO LATER THAN THE EARLIER OF 30 CALENDAR DAYS AFTER THE ISSUE DATE OF THE ADDITIONAL NOTES AND 60 CALENDAR DAYS AFTER THE DATE OF THE ALLOTMENT OF THE ADDITIONAL NOTES.

SETTLEMENT CYCLE

It is expected that delivery of the Additional Notes will be made against payment therefore on or around the date specified on the cover page of the offering memorandum, which will be the tenth business day following the date of pricing of the Additional Notes (this settlement cycle is being referred to as “T+10”). Under Rule 15(c)6 1 under the U.S. Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Additional Notes on the date of pricing or the next seven succeeding business days will be required to specify an alternative settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of the Additional Notes who wish to trade the Additional Notes on the date of pricing or the next seven succeeding business days should consult their own advisor.

NOTICE TO EEA INVESTORS

This offering memorandum has been prepared on the basis that any offer of the Additional Notes in any Member State of the European Economic Area (the “**EEA**”) will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of the Additional Notes. This document is an advertisement and not a prospectus for the purposes of the Prospectus Directive. The expression “**Prospectus Directive**” means Directive 2003/71/EC (as amended or superseded), and includes any relevant implementing measure in the Member State concerned.

Professional investors and eligible counterparties only target market

Solely for the purposes of the product approval process of each Joint Bookrunner, the target market assessment in respect of the Additional Notes described in this offering memorandum has led to the conclusion that: (i) the target market for such Additional Notes is eligible counterparties and professional clients only, each as defined in Directive 2014/65/EU (as amended, “**MiFID II**”); and (ii) all channels for distribution of such Additional Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending such Additional Notes (a “**distributor**”) should take into consideration the manufacturers’ target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of such Additional Notes (by either adopting or refining the manufacturers’ target market assessment) and determining appropriate distribution channels.

PROHIBITION OF SALES TO EEA RETAIL INVESTORS

The Additional Notes are not intended to be offered, distributed or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the EEA. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; (ii) a customer within the meaning of Directive 2016/97/EU (as amended or superseded, the “**Insurance Distribution Directive**”), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Directive. Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the “**PRIIPs Regulation**”) for offering or selling the Additional Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Additional Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPS Regulation.

THIS OFFERING MEMORANDUM CONTAINS IMPORTANT INFORMATION WHICH YOU SHOULD READ BEFORE YOU MAKE ANY DECISION WITH RESPECT TO AN INVESTMENT IN THE ADDITIONAL NOTES.

FORWARD-LOOKING STATEMENTS

This offering memorandum includes forward-looking statements within the meaning of the securities laws of certain applicable jurisdictions. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this offering memorandum, including, without limitation, those regarding our future financial position and results of operations, our strategy, plans, objectives, goals and targets, future developments in the markets in which we participate or are seeking to participate or anticipated regulatory changes in the markets in which we operate or intend to operate. In some cases, you can identify forward-looking statements by terminology such as “aim”, “anticipate”, “believe”, “continue”, “could”, “estimate”, “expect”, “forecast”, “guidance”, “intend”, “may”, “ongoing”, “plan”, “potential”, “predict”, “projected”, “propose”, “seek”, “should”, “targets” or “will” or the negative of such terms or other variation or comparable terminology.

By their nature, forward-looking statements involve known and unknown risks, uncertainties and other factors because they relate to events and depend on circumstances that may or may not occur in the future. We caution you that forward-looking statements are not guarantees of future performance and are based on numerous assumptions and that our actual results of operations, including our financial condition and liquidity and the development of the industry in which we operate, may differ materially from (and be more negative than) those made in, or suggested by, the forward-looking statements contained in this offering memorandum. In addition, even if our results of operations, including our financial condition and liquidity and the development of the industry in which we operate, are consistent with the forward-looking statements contained in this offering memorandum, those results or developments may not be indicative of results or developments in subsequent periods. Important risks, uncertainties and other factors that could cause these differences include, but are not limited to:

- the level of economic growth and activity and fluctuations in the demand for our products;
- the cyclical nature of the containerboard and corrugated board industry and industry-wide production capacity;
- operational disruptions at our facilities;
- risks associated with our expansion and other investment projects, in particular our new paper machine project;
- pricing pressure, consolidation of our customers, product substitution and competition in the markets in which we operate;
- fluctuations in the costs of our raw materials and other input costs and our ability to pass on increases to our customers;
- our ability to secure a reliable supply of raw materials, including recycled paper;
- the availability of, and increases in the costs of transportation;
- increases in energy costs and loss of financial privileges in this respect;
- failure to successfully continue our Continuous Improvement Program and to further improve our operational efficiency and asset utilization and to successfully implement our business strategy;
- adverse effects arising from costs and difficulties of acquiring and integrating complementary businesses;
- our ability to comply with numerous environmental, health and safety laws and regulations as well as changes to such laws and regulations;
- currency exchange rate fluctuations;
- insufficient insurance coverage;
- loss of key customers or key personnel;
- risks arising from uncertainties regarding the European Monetary Union;
- IT and communication system failure or data loss;
- tax risks attributable to previous tax assessment periods and risks associated with restrictions on the deduction of interest expense or forfeiture of interest carry forwards under German tax laws;

- our substantial leverage and debt service obligations;
- limited operating flexibility due to financial and restrictive covenants in our debt agreements;
- risks of a default under our debt agreements, which could result in an acceleration of repayment;
- risks associated with our capital structure, the Notes, the Guarantees and our other indebtedness;
- force majeure and other unforeseeable events; and
- other factors discussed in “*Risk Factors*”.

The risks described in the “*Risk Factors*” section of this offering memorandum are not exhaustive. Other sections of this offering memorandum describe additional factors that could adversely affect our business, financial condition and results of operations. Moreover, we operate in a highly competitive industry. New risks may emerge from time to time, and it is not possible for us to predict all such risks; nor can we assess the impact of all such risks on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

We urge you to read carefully the sections of this offering memorandum entitled “*Risk Factors*”, “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*”, “*Industry and Competition*” and “*Business*” for a more complete discussion of the factors that could affect our future performance and the markets in which we operate. In light of these risks, uncertainties and assumptions, the forward-looking statements described in this offering memorandum may not be accurate or occur at all.

Accordingly, prospective investors should not place undue reliance on these forward-looking statements, which speak only as of the date on which the statements were made (and in any case no later than the date of this offering memorandum). In addition, from time to time, we and our representatives, acting in respect of information provided by us, have made or may make forward-looking statements orally or in writing. These forward-looking statements may be included in, but are not limited to, press releases (including on our website), reports to our security holders and other communications. Although we believe that the expectations reflected in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct.

We undertake no obligation, and do not intend, to update or revise any forward-looking statements or risk factors, whether as a result of new information, future events or developments or otherwise. All subsequent written and oral forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the cautionary statements referred to above and contained elsewhere in this offering memorandum.

CERTAIN DEFINITIONS

Unless otherwise specified or the context requires otherwise in this offering memorandum (and except as otherwise defined in “*Description of the Notes*” and “*Description of Certain Financing Arrangements*” for purposes of those sections only), references to:

- “**we**”, “**us**”, “**our**” and the “**Group**” are to Progroup AG together with its consolidated subsidiaries;
- “**Additional Notes**” are to the €150,000,000 aggregate principal amount of 3.000% senior secured notes due 2026 offered pursuant to this offering memorandum and which will constitute an increase (*Aufstockung*) of the Existing Notes;
- “**Agency Agreement**” are to the agency agreement in relation to the Notes, dated March 27, 2018, and made between among others, the Paying Agent, the Issuer and any other parties named therein, as amended, restated or otherwise modified or varied from time to time, including by the supplement to the Agency Agreement in relation to the Additional Notes to be entered into on or about the issue date of the Additional Notes;
- “**Board**” are to our corrugated board production at our ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom;
- “**Cash Management Liabilities**” have the meaning ascribed to them under “*Description of Certain Financing Arrangements—Intercreditor Agreement*”;
- “**CHP**” are to the combined heat and power plant adjacent to our paper mill in Eisenhüttenstadt, Germany;
- “**CHP Acquisition**” are to our acquisition from EnBW and certain of its subsidiaries of Progroup Power 1 GmbH, the CHP and certain related assets effective as of midnight on December 31, 2015;
- “**Collateral**” mean the collateral as described under “*Description of the Notes—General—Security; Release of Collateral*”;
- “**Company**” or to “**Issuer**” are to Progroup AG, a stock corporation (*Aktiengesellschaft*) incorporated under the laws of Germany and the Issuer of the Notes;
- “**Conditions of Issue**” mean the terms and conditions of the Notes as summarized in “*Description of the Notes*”;
- “**Continuous Improvement Program**” are to the Continuous Improvement Program described under “*Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results of Operations—Continuous Improvement Program*”;
- “**EnBW**” are to EnBW Energie Baden-Württemberg AG;
- “**Executive Board**” are to the executive board of Progroup AG;
- “**Existing Notes**” are to the Issuer’s €450,000,000 aggregate principal amount outstanding of its 3.000% senior secured notes due 2026 that were issued by the Issuer on March 27, 2018;
- “**Existing Senior Secured Commerzbank Facilities**” means the EUR 75,000,000 senior secured facilities agreement dated July 13, 2018, entered into among the Company as company, Progroup Paper PM3 GmbH as borrower, the other Guarantors as original guarantors and Commerzbank Aktiengesellschaft as lender and agent, as amended from time to time;
- “**Existing Senior Secured Facilities**” are to the Existing Senior Secured IKB Facilities, the Existing Senior Secured GBP Facility, the Existing Senior Secured PLN Facilities, the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured HSBC Facility;
- “**Existing Senior Secured GBP Facility**” are to the GBP 70,000,000 senior secured GBP facility agreement dated December 21, 2017, entered into among the Issuer as company and original guarantor, Progroup Board Ltd. as borrower and original guarantor, the other Guarantors as original guarantors, Goldman Sachs Bank USA as original lender, Goldman Sachs Lending Partners LLC as agent, and Wilmington Trust (London) Limited as security agent, and as amended from time to time;

- “**Existing Senior Secured HSBC Facility**” means the EUR 30,000,000 senior secured EUR facility agreement dated August 6, 2018, entered into among the Issuer as company and original guarantor, Progroup Paper PM3 GmbH as borrower, the other Guarantors as original guarantors and HSBC Trinkaus & Burkhardt AG as lender and agent, and as amended from time to time;
- “**Existing Senior Secured IKB Facilities**” are to the EUR 63,500,000 senior secured facilities agreement dated December 21, 2017 as last amended and restated on July 13, 2018, entered into among the Issuer as company and borrower, Progroup Board PM3 GmbH as borrower, Progroup Board GmbH and the other Guarantors as original guarantors and IKB Deutsche Industriebank AG as original lender and agent, and as amended from time to time;
- “**Existing Senior Secured PLN Facilities**” are to (i) the PLN 107,000,000 senior secured PLN facility agreement dated December 1, 2015 (the “**2015 Senior Secured PLN Facility**”) and (ii) the PLN 107,000,000 senior secured PLN facility agreement dated May 31, 2016 (the “**2016 Senior Secured PLN Facility**”), in each case (i) entered into among the Issuer, as company and original guarantor, Progroup Board sp. z o.o. as borrower and original guarantor, the other Guarantors as original guarantors, Commerzbank Aktiengesellschaft as mandated lead arranger, original lender and agent, and Wilmington Trust (London) Limited as security agent and (ii) in each case as amended from time to time;
- “**Existing Senior Secured SaarLB Facility**” means the EUR 25,000,000 senior secured facility agreement dated July 13, 2018, entered into among the Company as company, Progroup Paper PM3 GmbH as borrower, the other Guarantors as original guarantors and Landesbank Saar as lender and agent, as amended from time to time;
- “**Floating Rate Notes**” are to the Issuer’s €150,000,000 aggregate principal amount outstanding of its senior secured floating rate notes due 2024;
- “**German GAAP**” are to generally accepted accounting principles (*Grundsätze ordnungsmäßiger Buchführung*) in the Federal Republic of Germany as in effect from time to time;
- “**Guarantee Agreement**” are to the agreement to be entered into among the Security Agent, the Holders’ Representative and the Guarantors in relation to the confirmation of guarantees with regard to the Additional Notes on or around the issue date of the Additional Notes;
- “**Hedging Obligations**” are to certain hedging obligations which will be secured by the Collateral pursuant to the terms of the Intercreditor Agreement;
- “**Holdings**” are to any holder of a proportionate co-ownership or other beneficial interest or right in the Additional Notes or the Existing Notes, as the case may be;
- “**Holdings’ Representative**” are to Deloitte GmbH Wirtschaftsprüfungsgesellschaft in its separate capacities as the common representative (*gemeinsamer Vertreter*) of the Holdings of the Notes;
- “**IFRS**” are to International Financial Reporting Standards as adopted by the European Union;
- “**Initial Purchasers**” are to Deutsche Bank AG, London Branch, Commerzbank Aktiengesellschaft, Goldman Sachs International and HSBC Bank plc;
- “**Intercreditor Agreement**” are to the intercreditor agreement entered into on April 29, 2015 among, *inter alia*, the Issuer and any other entity which has acceded or accedes to the intercreditor agreement as a debtor, the Security Agent, the lenders under the Super Senior Revolving Credit Facility, the agent under the Super Senior Revolving Credit Facility and the Holdings’ Representative, as confirmed and/or amended from time to time which is described in more detail under “*Description of Certain Financing Arrangements—Intercreditor Agreement*”;
- “**Issue Date**” are to March 27, 2018, the date of original issuance of the Existing Notes;
- “**JH-Holding**” are to JH-Holding GmbH, a limited liability company (*Gesellschaft mit beschränkter Haftung*) organized under the laws of Germany, the direct parent company of the Issuer and our controlling shareholder;
- “**Logistics**” are to our own logistics operations, including a fleet of trucks we operate primarily to service the business operations of Paper and Board;
- “**New Senior Secured Erste Bank Facility**” means the EUR 30,000,000 senior secured facility agreement dated May 31, 2019, entered into among the Company as company, borrower and

guarantor, the Guarantors as original guarantors, and Erste Bank Group AG as lender and agent, as amended from time to time;

- “**New Senior Secured Facilities**” are to the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility;
- “**New Senior Secured LBBW Facilities**” means the EUR 30,000,000 senior secured facilities agreement dated May 31, 2019, entered into among the Company as company, borrower and guarantor, the Guarantors as original guarantors, and Landesbank Baden-Württemberg as lender and agent, as amended from time to time;
- “**New Senior Secured SaarLB Facility**” means the EUR 15,000,000 senior secured facility agreement dated May 31, 2019, entered into among the Company as company, borrower and guarantor, the Guarantors as original guarantors, and Landesbank Saar as lender and agent, as amended from time to time;
- “**Notes**” are to the Existing Notes and the Additional Notes, collectively;
- “**Offering**” are to the offering of the Additional Notes contemplated by this offering memorandum;
- “**Paper**” are to our containerboard production activities at our two paper mills in Burg (PM1) and Eisenhüttenstadt (PM2) (both located in Germany), including the related energy production of Power at the CHP adjacent to our paper mill in Eisenhüttenstadt;
- “**Priority Hedging Obligations**” are to certain hedging obligations which (subject to the respective designation to be made pursuant to the terms of the Intercreditor Agreement) will, together with the Super Senior Revolving Credit Facility and Cash Management Liabilities, be secured by the Collateral on a super-priority basis pursuant to the terms of the Intercreditor Agreement;
- “**Power**” are to our energy production at the CHP in Eisenhüttenstadt (Germany);
- “**Refinancing**” are to the Refinancing, as defined under “*Summary—The Refinancing*”;
- “**Security Agent**” are to Wilmington Trust (London) Limited, in its capacity as security agent for the Existing Notes and the Additional Notes;
- “**Senior Secured Facilities**” are to the Existing Senior Secured Facilities and the New Senior Secured Facilities, collectively;
- “**Super Senior Revolving Credit Facility**” are to our super senior revolving credit facility as defined in “*Description of Certain Financing Arrangements—Super Senior Revolving Credit Facility*”;
- “**Supervisory Board**” are to the supervisory board of Progroup AG;
- “**United Kingdom**” or “**UK**” are to the United Kingdom of Great Britain and Northern Ireland;
- “**United States**” or “**U.S.**” are to the United States of America; and
- “**U.S. Securities Act**” are to the U.S. Securities Act of 1933, as amended.

PRESENTATION OF FINANCIAL INFORMATION

General

In this offering memorandum, the term “financial statements” refers to the audited consolidated financial statements and the notes thereto of the Issuer and its consolidated subsidiaries as of and for the fiscal years ended December 31, 2016, 2017 and 2018 and the unaudited condensed consolidated interim financial statements and notes thereto of the Issuer and its subsidiaries as of and for the three-month period ended March 31, 2019 (“**2019 Unaudited Three Months Condensed Consolidated Financial Statements**”). The consolidated financial statements as of and for the fiscal years ended December 31, 2016, 2017 and 2018, along with the audit reports of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (formerly PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft) with respect to the consolidated financial statements as of and for the fiscal years ended December 31, 2016, 2017 and 2018 are included in this offering memorandum beginning on page F-12. Furthermore, we have included in this offering memorandum the 2019 Unaudited Three Months Condensed Consolidated Financial Statements which include comparative figures for the three-month period ended March 31, 2018.

In addition, this offering memorandum includes certain unaudited consolidated financial information for the 12 months ended March 31, 2019. This information was derived by adding our consolidated financial information for the year ended December 31, 2018 derived from our audited consolidated financial statements to our unaudited consolidated financial information for the three months ended March 31, 2019 and subtracting our unaudited consolidated financial information for the three months ended March 31, 2018.

Our financial statements included in this offering memorandum have been prepared in accordance with German GAAP, which differs in certain significant respects from IFRS. For a discussion of significant differences between German GAAP and IFRS, see “*Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Significant Differences between German GAAP and IFRS*”.

In making an investment decision, you must rely upon your own examination of the terms of the Offering to which this offering memorandum relates and of the financial statements and financial information contained in this offering memorandum. We do not present separate financial statements of the Guarantors in this offering memorandum, because all such entities are wholly-owned, directly or indirectly, by the Issuer, and the financial position, results of operations and cash flows of such entities are therefore consolidated within our financial statements contained herein.

The financial information included in this offering memorandum is not intended to comply with the reporting requirements of the SEC.

Certain numerical figures set out in this offering memorandum, including financial data and operational volumes presented in million or thousand and percentages describing market shares, have been subject to rounding adjustments and, as a result, the totals of the data in this offering memorandum may vary slightly from the actual arithmetic totals of such information. The financial information and financial statements included in this offering memorandum are presented in euro. Amounts presented in euro per ton are not part of the financial statements but are taken from the management reporting of the Group.

Non-GAAP Financial Measures

In this offering memorandum, we present certain non-GAAP measures and ratios, including total output, gross profit, EBITDA, EBITDA margin, consolidated net income/(net loss) before income tax, trade working capital, free cash flow, net cash flow, cash flow available for debt service, adjusted cash flow available for debt service, cash flow from change in trade working capital and cash flow from change in total working capital, capital expenditures, total financial debt as well as net financial debt and other *pro forma* data that are not required by, or presented in accordance with, German GAAP. Our management believes that the presentation of these non-GAAP measures is helpful to investors because these and other similar measures are widely used by certain investors, security analysts and other interested parties as supplemental measures of performance and liquidity. However, you should not construe these non-GAAP measures as an alternative to net income determined in accordance with German GAAP or to cash flows from operating activities, investing activities or financing activities. In addition, the non-GAAP measures and ratios, including total output, gross profit, EBITDA, EBITDA margin, consolidated net income/(net loss) before income tax, trade working capital, free cash flow, net cash flow, cash flow available for debt service, adjusted cash flow available for debt service, cash flow from change in trade working capital and cash flow from change in total working capital, capital expenditures, total financial debt as well as net financial debt and other *pro forma* data presented by us may not be comparable to similarly titled measures used by other companies.

INDUSTRY AND MARKET DATA

We operate in an industry for which it is difficult to obtain precise industry and market information. Market data and certain economic and industry data and forecasts used, and statements regarding our position in the industry made, in this offering memorandum are based upon market research, government and other publicly available information, reports prepared by independent industry consultants and independent industry publications. These include information published by RISI, Inc. (“**RISI**”) and Vision Hunters Ltd. Oy (“**Vision Hunters**”). The information in this offering memorandum that has been sourced from third parties has been accurately reproduced and, as far as we are aware and able to ascertain from the information published by such third parties, no facts have been omitted that would render the reproduced information inaccurate or misleading. While we believe the statements included in such third-party publications to be reliable, they have not been independently verified, and neither we nor the Initial Purchasers make any representation or warranties as to the accuracy or completeness of such information set forth in this offering memorandum. Additionally, industry publications and such reports generally state that the information contained therein has been obtained from sources believed to be reliable, but that the accuracy and completeness of such information is not guaranteed and in some instances state that they do not assume liability for such information. See also “*Risk Factors—Risks Related to Our Industry and Our Business—The information available to market analysts varies in its degree of comparability*”. Some industry publications publish or provide projections or other forward looking statements that, by their very nature, involve inherent risks and uncertainties and past projections or forward looking statements have turned out to be inaccurate. See “*Forward-Looking Statements*”. Neither we nor the Initial Purchasers can therefore assure you of the accuracy and completeness of such information as we have not independently verified such information.

In addition, certain information in this offering memorandum regarding our industry and our market position is not based on published statistical data or information obtained from independent third parties. Such information and statements reflect our estimates based upon information obtained from trade and business organizations and associations and other contacts within the industry in which we compete, internal surveys and assumptions we deem reasonable, as well as information published by our competitors. To the extent that information in this offering memorandum is identified as being our belief, that information is based on the following: (i) in respect of industry trends, our senior management’s general business experience, as well as their experience in our industry and the markets in which we operate, and (ii) in respect of the performance of our operations, our internal analysis of our audited and unaudited financial and other information. As some of the foregoing information was compiled or provided by our management and is not publicly available, such information accordingly may not be considered to be as independent as that provided by other third-party sources.

CURRENCY PRESENTATION AND EXCHANGE RATE INFORMATION

In this offering memorandum, all references to “euro”, “EUR” or “€” are to the single currency of the participating member states of the European and Monetary Union of the Treaty Establishing the European Community, as amended from time to time, and all references to “U.S. dollars” and “US\$” are to the lawful currency of the United States of America. All references to “British pounds”, “GBP” or “£” are to the lawful currency of the United Kingdom, all references to “CZK” or “Czech koruna” are to the lawful currency of the Czech Republic and all references to “PLN” or “Polish zloty” are to the lawful currency of the Republic of Poland.

The following table sets forth, for the periods set forth below, the high, low, average and period end Bloomberg Composite Rate expressed as U.S. dollars per €1.00. The Bloomberg Composite Rate is a “best market” calculation, in which, at any point in time, the bid rate is equal to the highest bid rate of all contributing bank indications and the ask rate is set to the lowest ask rate offered by these banks. The Bloomberg Composite Rate is a mid-value rate between the applied highest bid rate and the lowest ask rate. The rates may differ from the actual rates used in the preparation of our financial statements and other financial information appearing in this offering memorandum. Neither the Issuer nor the Initial Purchasers make any representation that the euro amounts referred to in this offering memorandum have been, could have been or could, in the future, be converted into U.S. dollars at any particular rate, if at all.

The average rate for a year means the average of the Bloomberg Composite Rates on the last day of each month during a year. The average rate for a month, or for any shorter period, means the average of the daily Bloomberg Composite Rates during that month, or shorter period, as the case may be.

The Bloomberg Composite Rate of the euro on June 7, 2019 was US\$1.1334 per €1.00.

	U.S. dollars per €1.00			
	Period end	Average	High	Low
Year				
2016	1.0520	1.1070	1.1532	1.0389
2017	1.2005	1.1303	1.2036	1.0406
2018	1.1469	1.1808	1.2509	1.1218
Month				
December 2018	1.1469	1.1376	1.1469	1.1304
January 2019	1.1448	1.1418	1.1543	1.1303
February 2019	1.1371	1.1347	1.1459	1.1268
March 2019	1.1217	1.1299	1.1414	1.1194
April 2019	1.1216	1.1233	1.1304	1.1133
May 2019	1.1170	1.1183	1.1235	1.1129
June 2019 (through June 7, 2019)	1.1334	1.1265	1.1334	1.1221

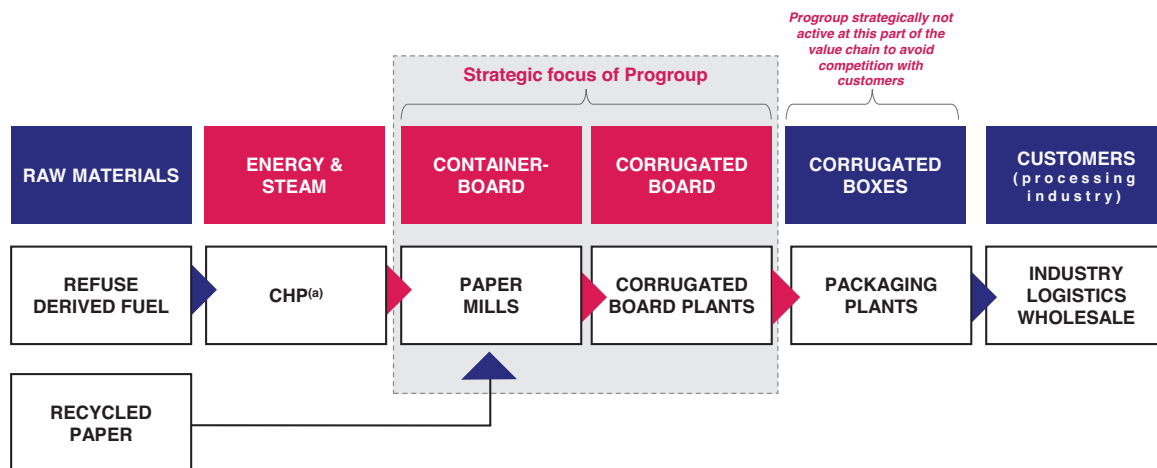
For information on the impact of fluctuations in exchange rates on our operations, see “Risk Factors—Risks Related to Our Industry and Our Business—We are exposed to currency exchange rate fluctuations”.

SUMMARY

This summary highlights information contained elsewhere in this offering memorandum but does not contain all of the information that you should consider before investing in the Additional Notes. The following summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information and the financial statements appearing elsewhere in this offering memorandum. You should read carefully the entire offering memorandum to understand our business, the nature and terms of the Additional Notes and the tax and other considerations which are important to your decision to invest in the Additional Notes, including “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, “Description of the Notes” and the risks discussed under the caption “Risk Factors”.

OUR COMPANY

We are a leading, family-owned producer and supplier of containerboard and corrugated board in Central Europe and are headquartered in Landau, Germany. According to Vision Hunters, we are the third largest producer of corrugated board in Europe (by production capacity) through our corrugated board business (“**Board**”) and the sixth largest producer of recycled containerboard in Europe (by production capacity) through our containerboard business (“**Paper**”). We focus on the highly efficient production and processing of standardized grades and customized small batch series of corrugated board sheets for our mostly family-owned box manufacturing customers. In this core market segment, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters. We believe we differentiate ourselves from other market participants (*i.e.*, fully integrated paper and packaging producers) through our strategic focus on those elements of the value chain that bring added-value to our customers in the packaging industry, *i.e.* the automated and integrated production of containerboard and corrugated board. Our customers serve various end markets, including industrial/manufacturing, consumer durables, processed foods, non-food manufactured consumer goods and fresh food. Unlike many fully integrated market players, we do not produce boxes and therefore do not compete with our box manufacturing customers but instead focus solely on the production of containerboard and corrugated board.



(a) Combined heat and power plant

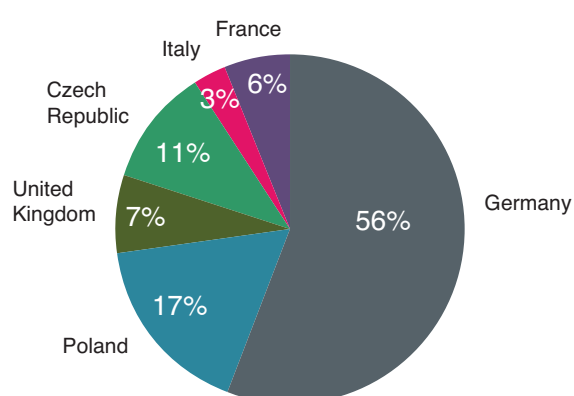
Through our large scale and highly flexible production, built up primarily via a greenfield approach, we are able to realize significant economies of scale. Since we commenced operations in 1992, we have carefully selected the locations of our production sites and have grown organically by pursuing primarily a greenfield strategy to create an optimal geographic set-up of our production sites across the markets in which we operate. As a result, we benefit from a well-invested asset base and production sites with high technological standards, resulting in a relatively low cost base compared to many of our competitors and relatively low requirements for additional capital expenditures in the short- to medium-term. Given the high technological standards of our production facilities, we believe we are well-positioned to benefit from major growth trends in our industry, such as (i) increasing demand for light-weight packaging, (ii) the increasing importance of small-size packaging due to the growing importance of e-commerce, and (iii) the general trend towards a more efficient and sustainable use of raw materials and energy, which can help reduce costs, CO₂ emissions and fresh water consumption.

Our core business comprises Paper and Board. The focus of Paper's operations is highly flexible containerboard production using almost exclusively recycled paper, with high output volumes to increase cost efficiency and short delivery times. In 2016, 2017, 2018 and the first three months of 2019, containerboard produced by Paper accounted for most of the containerboard sourcing requirements of our corrugated board production within Board. We believe that a high degree of vertical integration and the ability of Board to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. In addition, our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options.

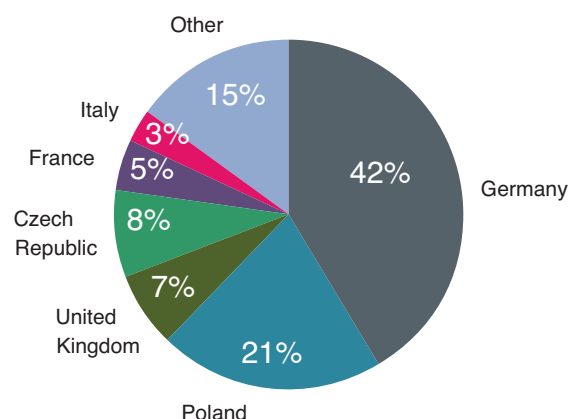
Paper manufactures containerboard at our two paper mills in Germany, with an envisaged total annual production capacity of approximately 1,100,000 tons of containerboard. Our two existing paper machines, PM1 in Burg and PM2 in Eisenhüttenstadt, have complementary production layouts which allow us to produce brown containerboard with grammages between 60-230g/m² using almost exclusively recycled paper. This, in turn, allows us to internally source consistently high-quality containerboard with the appropriate widths for Board's ten existing corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom, with a total annual production capacity of approximately 1,440,000 tons of corrugated board, including our latest corrugated board "mega plant" (PW12) at Ellesmere Port, United Kingdom. Our historic greenfield location strategy ensures close customer proximity and high production flexibility. Effective as of midnight on December 31, 2015, we further acquired Progroup Power 1 GmbH, the combined heat and power plant (the "CHP") adjacent to our paper mill in Eisenhüttenstadt and certain related assets (the "CHP Acquisition"). As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves ("Power").

In 2018, we sold approximately 1,151,000 tons of corrugated board and approximately 176,000 tons of containerboard to external customers across Europe, resulting in external corrugated board and containerboard sales, respectively, of €840.0 million (86.9% of total sales) and €84.5 million (8.7% of total sales). Paper's total sales in 2018 include €17.9 million (1.9% of total sales) in revenues from the sale of electricity and revenues from the incineration of refuse-derived fuel resulting from the integration of the CHP as well as €9.7 million (1.0% of total sales) in sales from passing purchased fuel costs to Sales and Solutions GmbH. Total external sales by Board and Paper in 2018 (including sales other than corrugated board or containerboard sales, respectively) amounted to €840.8 million (87.0% of total sales) and €112.9 million (11.7% of total sales). Our total sales and EBITDA in 2018 amounted to €966.1 million and €275.5 million, respectively. Sales in Germany (origin), our core market, accounted for 55.8% of total sales and 42.0% of sales by volume in 2018.

Sales by Origin 2018



Volume by Destination 2018



Primarily to support our core business, Paper and Board, we have established our own logistics operations, including a fleet of currently 59 trucks ("Logistics"). Most of the remaining €12.4 million in sales (1.3% of total sales) in 2018 were generated by Logistics.

Founded in 1991, we are indirectly majority-owned by Jürgen Heindl, our founder and chief executive officer.

OUR STRENGTHS

We believe we benefit from the following competitive strengths.

Differentiated business model with leading market positions in attractive market environment

Our founder, Jürgen Heindl, designed a business model differentiating us from our competitors. Through our strategic value chain positioning in containerboard and corrugated board production only, we do not compete with our targeted customers, who are primarily family-owned, small and medium-sized businesses. Our core customers focus on packaging solutions for the end-customer and typically do not have their own corrugated board production capability. Many of our competitors are fully integrated and focus on serving larger end-customers in large batch sizes, including global consumer corporates. Our differentiated business model allows us to serve a higher number of customers, process a higher number of orders and maintain higher production volumes per production site (up to 370 million square meters of corrugated board per annum), thereby generating economies of scale. We are solely focused on the production process as opposed to many of our competitors, who also focus on more complex and customer-specific packaging requirements for a smaller number of larger customers and, hence, only have an average production output of typically 70-80 million square meters per production site per annum.

In 27 years since our foundation, we have achieved leading market positions in the countries in which we operate. We are among the top three corrugated board producers in Europe (by production capacity) and our market share in our specific segment, the corrugated sheet market in Europe, was approximately 15% according to a March 2018 market study by Vision Hunters. In our core market segment, namely corrugated board sheets, we were the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters, and we hold considerably higher market shares in those markets compared to our position in the overall European containerboard and corrugated board market. Following the fast and successful ramp-up of our corrugated board production site (PW10) in Trzcinica, Poland, we have also become a very significant player in the Polish market, and we have further become a significant player in the UK market, as a result of the commencement of production in January 2019 and ongoing ramp-up at our newest corrugated board production site (PW12) in Ellesmere Port, United Kingdom, which replaced the much smaller and now decommissioned production site PW8. In addition, the commencement of production at our corrugated board production site (PW11) in Drizzona, Italy in early March 2018, with an annual corrugated board production capacity of approximately 100,000 tons, marked our entry into the largest corrugated sheet board market in Europe. In containerboard production, we had a market share of approximately 4% by production capacity in Europe, according to the March 2018 market study by Vision Hunters.

While we believe our differentiated business model, high reliability and quality of product supply, significant scale, internal sourcing and geographic coverage provide us with a competitive advantage in our core market segment, we also benefit from attractive market fundamentals of the overall industry.

The paper and packaging industry is experiencing overall growing demand from industrial economies in Central Europe, and we believe that Germany and Central Europe, our key markets, generally provide a positive economic outlook. From a product perspective, the increasing significance of light-weight paper and packaging solutions as well as small-size packaging and the increasingly online and mail order-driven retail sector is expected to further stimulate packaging growth. We believe our modern production facilities, particularly PM2, which is capable of producing light-weight paper grades economically on a commercial scale, position us well to benefit from these growth trends in the industry. Furthermore, production is driven by the strong increase in demand from emerging economies, where production and packaging standards are adapting to the standards of developed countries, from which we also benefit with our production in Poland and the Czech Republic

Uniquely designed, best-in-class and strategically located, low-cost production asset base built up via greenfield strategy

Since our foundation in 1991, we have carefully designed and selected our production operations and locations via a dedicated greenfield strategy to establish highly efficient, flexible and technologically advanced production facilities, which were ahead of the existing market standard at the time. We believe we are the fastest organically growing corrugated board producer in Europe and have developed a unique track record and expertise in successfully establishing new greenfield corrugated board production sites. This includes a dedicated and experienced in-house projects team tasked with identifying attractive market opportunities for profitable growth, completing the planning and construction phases of the relevant

projects on time and on budget and managing fast and successful ramp-ups of production at the relevant sites.

Designing our production set-up primarily via a greenfield strategy allowed us to invest in the best available production specifications and optimize the alignment and compatibility of our paper machines, PM1 and PM2, with our corrugators. The current 2.5m, 2.8m and 3.3m trim widths of our various existing corrugated board plants can be very efficiently combined with the 5.8m trim width of PM1 ($2 \times 2.8\text{m}$ or $2.5\text{m} + 3.3\text{m}$), the 10.2m trim width of PM2 ($4 \times 2.5\text{m}$ or $3 \times 3.3\text{m}$) and the 9.2m trim width of our proposed new paper machine PM3 ($2 \times 3.3\text{m} + 2.5\text{m}$ or $2 \times 2.8\text{m} + 3.3\text{m}$), resulting in low volumes of cutting scrap and higher productivity.

Our corrugated board production sites have been purposefully located approximately 500 kilometers from each other. This footprint ensures close customer proximity with full regional coverage of our customers and limited overlap to limit the transportation distance in most circumstances to 250-300 kilometers. Our strategic footprint also allows us to achieve high production flexibility and reliable just-in-time delivery with short lead times. Furthermore, we are able to serve our customers from different locations, thereby optimizing transportation costs and capacity utilizations on a plant-by-plant basis, which is coordinated centrally from our headquarters in Landau following a “one mill approach”. We believe our location layout and organization give us a competitive advantage in terms of cost efficiency and customer orientation. On average, we serve approximately 50-80 customers per corrugated board production site and each of our production sites offers the entire range of customer services (e.g., 24 hour delivery and online ordering and tracking).

We believe that all of our plants are equipped with state-of-the-art technology, which is the foundation of our low-cost and efficient production. According to Vision Hunters, the asset quality of our paper machines is characterized as high and above comparable European containerboard and corrugated board producers. Performance metrics of PM1, such as capacity and technical age, are well above the industry average. PM2, which we believe to be among the world’s most advanced paper machines for recycled super-light-weight paper and which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m², ranks best in class for all metrics and has set five new world records since its launch in 2010.

Unlike many of our competitors, who grew historically over many decades or had to integrate production infrastructures inorganically through acquisitions, we differentiate ourselves through our well-invested asset base and high-quality, complementary, modern and strictly aligned, high capacity production facilities placed purposefully in strategic locations.

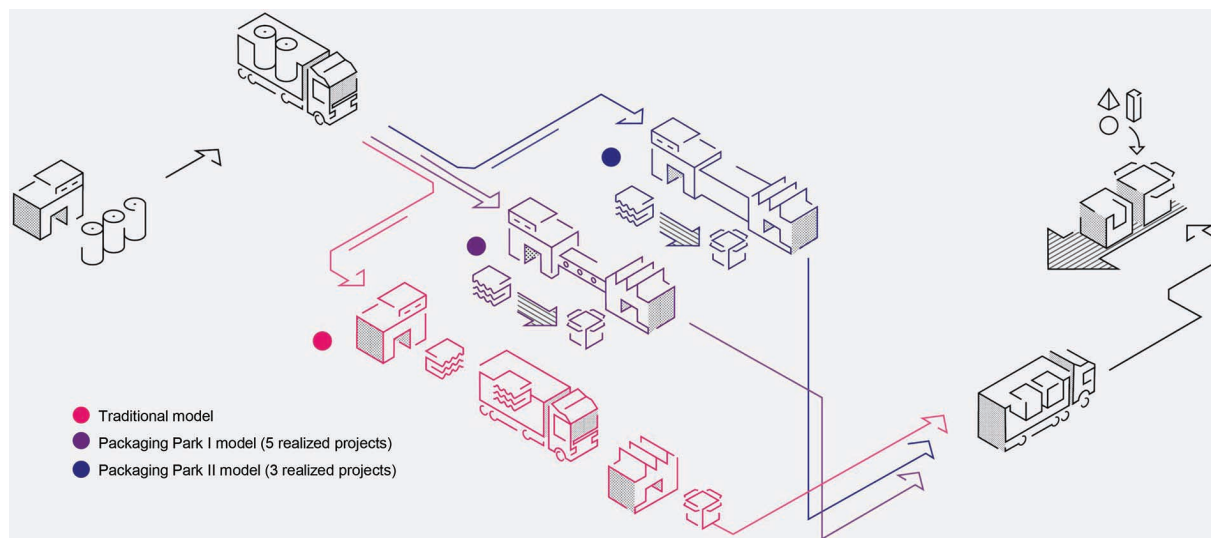
Strong, diversified and long-standing customer base

We have long-standing relationships with many of our customers, some of which date back to the start of our operations in 1992. We have grown with our large German customers as they have expanded across Europe and have successfully entered into new relationships with key customers outside of Germany. We currently supply 350 to 400 different Board customers, with a strategic focus on family-owned, small and medium-sized companies. Our top five Board customers accounted for approximately 7%, 4%, 3%, 3% and 2%, respectively, of our total corrugated board sales, by tons, in 2018, while our top five external Paper customers accounted for approximately 28%, 12%, 11%, 8% and 5%, respectively, of our total external containerboard sales, by tons, in 2018.

We believe that our ability to provide reliable delivery of high-quality, cost-effective and tailor-made products and being a family-owned business have enabled us to foster strong partnerships of mutual dependence with our mostly family-owned customers, operating as a fundamental part of their supply chains by improving inventory management, security of supply and customer service.

Our strong customer relationships are reinforced through a combination of our geographic reach, our manufacturing and logistics excellence, and the limited availability of alternative suppliers with the capacity and geographic proximity to provide a competitive offering. At some of our corrugated board production sites, certain long-standing customers have established their own box manufacturing plants in immediate proximity to our site, either on our own land or on land adjacent to our site (so-called “**Packaging Park I Model**”). As a variation of this original packaging park model, we commenced production in October 2015 at our corrugated board production site (PW9) in Plössberg, Germany, which we established in immediate proximity to an existing packaging plant of our customer, Liebensteiner Kartonagenwerk, on land owned by our customer. As a further variation of the packaging park model, we commenced production in the

first quarter of 2017 at our corrugated board production site (PW10) in Trzcinica, Poland on land we purchased from our large customer Janmar Centrum adjacent to its existing packaging plant. We refer to these variations as we establish our own corrugated board production sites close to our customers as the **“Packaging Park II Model”**. Following the success of these two packaging park projects (PW9 and PW10), we also established our corrugated board production site (PW11) in Drizzona, Italy as a packaging park project in immediate proximity to the existing packaging plant of our new customer, Italian packaging specialist Imbal Carton S.r.l.



All versions of the packaging park model help us to further strengthen our relationships with key customers (or win significant new customers, as in the case of Imbal Carton S.r.l.) and benefit both us and the relevant customers. The high level of integration between our own corrugated board production and the box production of our customers also made possible through the packaging park model creates a number of efficiencies and largely eliminates freight and other logistics costs between Board and our packaging park customers. Our packaging park customers also typically purchase a very high percentage (up to 100%) of their corrugated board requirements for the relevant box plant from us, which means predictable, high volume orders and consistently high utilization levels for the relevant corrugated board production sites. Index pricing arrangements with our packaging park customers ensure a predictable pricing mechanism for all parties. It typically takes approximately two to three months for containerboard mills to pass on their raw material price increases to their customers, *i.e.* manufacturers of corrugated board. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for corrugated board manufacturers, including us, to pass these increases on to their customers.

Technology and innovation leader

There are general industry trends towards lighter and more functional packaging and towards a more efficient use of resources. The trend towards “light paper” (*i.e.*, containerboard) has been particularly strong in Germany and has been further strengthened by the increasingly online and mail order-driven retail sector, which is expected to further stimulate demand growth for light packaging solutions. We believe that we are particularly well-positioned to capitalize on these trends with our paper mill in Eisenhüttenstadt, Germany, which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m². As demand for super-light-weight containerboard (with a grammage below 90g/m²) is increasing, we believe that PM2 gives us a significant advantage over many of our competitors, both in terms of efficiency and product quality. Our proposed further paper machine PM3, on the other hand, is designed to provide standard containerboard grades with grammages of 90-130g/m². Once this newest paper machine will commence operation, we believe it will give us the ability to put an even stronger focus on the production of super-light-weight containerboard (*i.e.* 70 - 80g) at PM2 and to focus production at PM1 on specialty containerboard such as kraftliner substitutes and containerboard with a higher grammages above 130g/m². We believe the expected further specialization of our paper machines will further enhance the productivity of all our paper machines as each paper mill will be able to focus on clearly defined paper categories. For more detail on our proposed new paper machine

(PM3), see also “—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments” below.

In addition, we continuously work to improve our product designs, optimize the utilization of our assets and explore new ways to further reduce our input costs and secure the long-term sustainability of our core businesses, both from an economic and environmental perspective. In particular, we are focused on further reducing the use of fibre (*i.e.*, recycled paper) in our products as well as the amount of energy required for our production processes and the shipment of our products, in order to both maintain a competitive cost position in our industry and to reduce emissions and waste.

We believe that, at the time of its launch in 2001, our paper machine PM1 was the world’s technologically most advanced containerboard paper machine setting new technology standards, including with the use of a closed water cycle, thereby minimizing the creation of waste water. Launched in 2010, we believe that PM2 is among the world’s most advanced paper machines, which we believe has allowed us to set new industry standards with respect to raw material efficiency. As described in more detail under “—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments” below, we further decided to make certain significant additional investments in connection with the proposed establishment of our newest paper machine (PM3), which we expect will result in significant cost savings in the mid- to long-term as well as significant reductions of CO₂ emissions, waste water and natural gas consumption. These investments include a state-of-the-art waste overall waste-heat concept as well as a “first-of-its-kind” closed cycle waste water treatment system.

We have invested significantly in the development of a “green” range of “next generation” products working in close cooperation with BHS Corrugated GmbH, one of our equipment suppliers, and a team of researchers at the University of Applied Sciences (*Hochschule für angewandte Wissenschaften*) in Regensburg, Germany. We market these products under our own brands next fibre®, next board® and next box®. All of these product innovations involve the use of super-light-weight containerboard produced by our paper machine PM2 as well as innovative flute designs of our corrugated board formats, intended to further reduce raw material input and thereby further reduce weight, input costs and CO₂ emissions.

Significant synergies through high degree of vertical integration

In 2018, containerboard produced by Paper accounted for approximately 75% of the containerboard, by volume, used by our corrugated board production within Board. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Board have increased from approximately 62% (or 67%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Paper in 2016 to approximately 82% (or 93%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Paper in 2018. With the fast and successful ramp-up of production at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018, we had already accomplished one of our long-standing strategic goals and had already been operating at the top end of our long-term target corridor with regard to the level of integration between Paper and Board. We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019, *i.e.* we expect that the recycled containerboard sourcing requirements of our corrugated board production within Board will significantly exceed the internal supply capacities of Paper. As we have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany (with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020) and plan to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023 (including a further corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021), we expect to successively increase this net short position with regard to containerboard even further at least in the short-term. We therefore currently do not expect the volume of our external containerboard sales to significantly increase again unless and until we complete our proposed further paper machine project (PM3) in the second half of 2020. For more details on our expansion projects and investment program, see also “—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments” below. With an envisaged total annual containerboard capacity of approximately 1,100,000 tons, Paper produced approximately 1,020,000 tons and 1,035,000 tons of containerboard in 2018 and 2016, respectively. In 2018, approximately 811,000 tons were sold internally to Board (2016: 738,000 tons of internal containerboard

sales), and a further approximately 111,500 tons were sold pursuant to swap agreements with other containerboard producers (2016: 106,000 tons of sales to swap partners), which allow us to reduce transportation costs, optimize our production program and swap internally produced containerboard for certain containerboard grades we do not produce in sufficient quantities, such as kraftliner. The remaining approximately 64,000 tons of containerboard we sold in 2018 were sold externally (2016: approximately 198,000 tons of external containerboard sales, excluding sales to swap partners). With a total annual corrugated board production capacity of approximately 1,440,000 tons (including (i) 100,000 tons of capacity of our new corrugated board production site (PW11) in Drizzona, Italy, which commenced production in early March 2018 and (ii) more than 200,000 tons of capacity of our newest corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom, which commenced production in January 2019) as of the date of this offering memorandum (2016: total annual corrugated board production capacity of approximately 1,130,000 tons), Board produced approximately 1,151,000 tons of containerboard in 2018, compared to approximately 930,000 tons of corrugated board in 2016. We believe that a high degree of vertical integration and making full use of the ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. At the same time, we believe that the high share of internal containerboard sales may help us stabilize or improve our overall Group margins by reducing our exposure to lower or more volatile margins (compared to corrugated board margins) of certain external containerboard sales. Our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options. The steady increase in the degree of vertical integration between Paper and Board over the last few years has also been allowing us to further optimize our internal logistics and supply chain. See also “—Our Strategy—Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases” below.

Strong track record of profitable growth

Since 2015, we successfully completed a number of recent expansion and other investment projects, including the CHP Acquisition as well as the successful establishment of four new corrugated board production sites (PW9, PW10, PW11 and PW12), with the construction of our new corrugated board production site (PW13) in Eisfeld, Germany progressing on schedule and earthworks for our third paper machine (PM3) in Sandersdorf-Brehna, Germany having started in January 2019. In addition, we successfully implemented a series of initiatives in recent years as part of our Continuous Improvement Program to improve the effectiveness of our sales and marketing activities, optimize (*i.e.*, minimize) our variable costs and stabilize our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry.

As a result of these and other factors, we have managed to continue to significantly improve our profitability and cash position and moved the Group to a structurally enhanced level of profitability in recent years. In particular, we have managed to increase our EBITDA from €81.7 million in 2013 to €125.1 million in 2014, €152.9 million in 2015, €154.7 million in 2016, €180.4 million in 2017 and €275.5 million in 2018. During the same period, our EBITDA margin (calculated by dividing EBITDA by sales) improved from 14.0% in 2013 to an exceptional 28.5% in 2018. Combined with our controlled investment strategy, which should normally allow us to adapt the amount of our expansion capital expenditures in line with our projected mid-term cash requirement, we believe we are in a strong financial condition to weather and/or adapt to challenges that may face us or our industry as a whole.

Committed family shareholders and experienced management team for long-term stability

Our company was founded in 1991 by Jürgen Heindl, our chief executive officer, and continues to be controlled by him and his two sons, Maximilian Heindl and Vinzenz Heindl. We believe this family link and the strong personal and long-standing financial commitment of our owners ensures our focus on stability, long-term value generation and prudent investment strategies. Jürgen Heindl’s expertise is supported by a strong and growing management team with extensive industry experience, including within our Group. Our management team has impressively demonstrated its abilities by creating one of Europe’s leading containerboard and corrugated board players in 27 years while withstanding economic downturns and restructurings. In response to the increasing size and complexity of the Group and to free up management capacity to allow Jürgen Heindl to focus on the strategic development of the Group, we have successfully professionalized and expanded our senior management team, including our Executive Board. Dr. Volker Metz rejoined the Group as our chief financial officer in November 2016, after previously having served as our head of controlling between 2009 and January 2016. Similarly, after spending seven years with one of

our largest international competitors, Philipp Kosloh rejoined the Group in November 2016 and was appointed a deputy member of our Executive Board, with a view to becoming our first chief operating officer. Mr. Kosloh had previously served in various capacities within the Group between 2001 and 2009. Effective January 1, 2019, Mr. Kosloh became a regular member of the Executive Board and assumed the role of chief operating officer. In addition, after gaining several years of relevant work and management experience in the paper industry outside the Group, Maximilian Heindl joined the Group in August 2016 as the manager in charge of production and technology at Paper (PM1 and PM2) and with overall responsibility for Power. From August 1, 2017, Maximilian Heindl took over further responsibility within the Group as a deputy member of the Executive Board and, effective January 1, 2019, he became a regular member of the Executive Board and assumed the role of chief development officer. Maximilian Heindl's work and management experience outside the Group, his management roles at Paper and Power, his appointment to the Executive Board and gradual assumption of further responsibilities are all part of a deliberate, long-term succession plan for our founder and chief executive officer Jürgen Heindl with the goal of securing our future as a successful family-owned business into the next generation.

OUR STRATEGY

Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments

To maintain and further strengthen our position as a leading, low-cost corrugated board producer in Europe in the long-term and to allow us to successfully meet ongoing and expected future market growth and the requirements of our customers with regard to supply certainty and product quality, we intend to continue to make prudent and controlled investments to further expand and improve the efficiency of our production facilities as part of our long-term “Two Twentyfive” strategy, as long as (i) we are confident we can achieve payback periods for our investments that are aligned with the maturity profile and relevant headroom under our financing arrangements, (ii) we maintain sufficient financial flexibility to weather and/or adapt to challenges that may face us or our industry as a whole, and (iii) any such investments would be consistent with our long-term target leverage. In addition to further capacity expansion, our “Two Twentyfive” strategy, among other things, also contemplates a gradual technological transition and generation change away from the use of corrugators with a trim width of 2.5m, which are installed and currently in use at some of our older corrugated board production sites, to the use of more modern corrugators with trim widths of 2.8m or 3.3m at most of our corrugated board production sites.

Following the successful completion of the ramp-up of production at our corrugated board production site (PW9) in Plössberg, Germany, which commenced production in October 2015, we had already accomplished one of our long-standing strategic goals in 2016 and were already operating within our target corridor with regard to the level of integration between Paper and Board. However, in the short-term to mid-term, we still intend to continue to focus our investment activities on further expanding our corrugated board production capacity to be able to seize what we believe are numerous further market opportunities for profitable growth, similar to those that led to the successful establishment of our most recent production sites (PW9, PW10, PW11 and PW12) in Plössberg (Germany), Trzcinica (Poland), Drizzona (Italy) and Ellesmere Port (United Kingdom). In continuation of our organic growth strategy, we intend to primarily achieve further growth by pursuing further expansion opportunities via greenfield projects.

In addition to the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018 following commencement of commercial production in April 2017, we commenced production at our corrugated board production site (PW11) in Drizzona, Italy, in early March 2018 and at our newest corrugated production site (PW12) in Ellesmere Port, United Kingdom, in January 2019. As with our corrugated board production site (PW9) in Plössberg, Germany and our corrugated board production site (PW10) in Trzcinica, Poland, we established our production site (PW11) in Drizzona, Italy, as a packaging park project in immediate proximity to the existing packaging plant of a customer, Italian packaging specialist Imbal Carton S.r.l., which allows us to supply this new customer largely without freight and other logistics costs. The commencement of production at our corrugated board production site (PW11) in Drizzona, Italy, with an annual corrugated board production capacity of approximately 100,000 tons, also marked our entry into the largest corrugated sheet board market in Europe. With a total investment of approximately €85-€90 million into the establishment of our new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom to replace our now decommissioned corrugated board production site (PW8) located just a few kilometers from the new site, we have now also become a significant player in the UK market. This newest corrugated board production site operates with a 3.35m

trim width and has an annual corrugated board production capacity of more than 200,000 tons, more than double the production capacity of approximately 85,000 tons of the old site (PW8), which we established in 2009 with a used corrugator with a 2.5m trim width. We believe that the new production site, with its large capacity and state-of-the-art equipment, is one of the largest and most efficient corrugated sheet board plants globally and positions us well to further grow in the United Kingdom, a market in which we have historically been able to achieve above average EBITDA margins.

While we have historically pursued a pure greenfield growth strategy, including the three packaging park projects (PW9, PW10 and PW11), our newest corrugated board production site (PW12) in the United Kingdom as well as the proposed new corrugated board production sites (PW13 and PW14), we are also evaluating and will continue to evaluate opportunities to acquire attractive assets from competitors which would complement our existing network of production sites, advance our goal of further increasing our corrugated board production capacity and meet the other internal investment and financing criteria described above. In addition, in order to maintain and/or strengthen our relationships with certain large and long-standing customers or in response to opportunities to establish relationships with significant new customers, we will consider additional packaging park projects whereby we would establish corrugated board production sites at or in proximity to the packaging plants of the relevant customers.

With the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcínica, Poland, we had already accomplished one of our long-standing strategic goals and had already been operating at the top end of our long-term target corridor with regard to the level of integration between Paper and Board. We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019, i.e. we expect that the recycled containerboard sourcing requirements of our corrugated board production within Board will significantly exceed the internal supply capacities of Paper. In the short-term to mid-term, we nevertheless intend to continue to focus our investment activities on further expanding our corrugated board production capacity. We have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany, with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020. We expect to make total net investments (net of subsidies) of approximately €60 million at this site, which is slightly higher than our earlier estimates of approximately €50 million. This cost increase primarily relates to additional investments which will increase the annual corrugated board production capacity of the new site to approximately 175,000 tons, from the originally proposed capacity of approximately 140,000 tons. Higher than originally expected civil engineering costs (due to the booming construction sector) also contributed to the expected overall cost increase. In addition, we plan to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023, including a further corrugated board “mega plant” (PW14), which we expect will operate with a 3.35m trim width and have an annual corrugated board production capacity of up to 215,000 tons. We expect to invest approximately €70-75 million into this new plant, which will have capabilities similar to our “mega plant” (PW12) in Ellesmere Port, United Kingdom and, we plan, will commence production in late 2020 or early 2021. Primarily to fund our expected investments into this new site, we entered into the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility, with total commitments of €75 million. For more details about these New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank Facility*”, “*Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities*” and “*Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility*”. As a result of these proposed additional corrugated board production sites, we expect our annual corrugated board production capacity to increase from approximately 3.0 billion square meters (including our corrugated board production sites (PW11 and PW12) in Drizzona, Italy and Ellesmere Port, United Kingdom) to approximately 4.2 billion square meters.

Preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner through our new paper machine project

In order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Board, we have also begun to actively pursue the realization of a further paper machine project (PM3) in Sandersdorf-Brehna, Germany.

Earthworks for the new paper machine already started in January 2019 and, subject (among other things) to obtaining the missing regulatory approvals and construction proceeding according to plan, we currently expect this further state-of-the-art paper machine to start production in the second half of 2020, with a total annual containerboard capacity of approximately 750,000 tons. Following completion of the ramp-up phase of this potential further paper mill, this would mean an increase of the total annual containerboard capacity of Paper from currently approximately 1,100,000 tons to approximately 1,850,000 tons. The new paper machine (PM3) will have a 9.2m trim width, which would allow us to optimize containerboard production to meet the requirements of the more modern corrugators with trim widths of 2.8m or 3.3m at most of our newer corrugated board production sites, which would result in low volumes of cutting scrap and higher productivity. Once PM3 has commenced operations, we also plan for further specialization of our then three paper machines which we expect will further enhance the productivity of all our paper machines as each paper mill will be able to focus on clearly defined paper categories. See also “—*Our Strengths—Technology and innovation leader*” above. We currently expect total net investment costs (i.e. net of expected subsidies) of approximately €465 million for this new paper machine project over a several year period, including approximately €116.7 million of initial expenditures (e.g. for advanced payments for the paper machine and certain preliminary work) we had already incurred as of the end of the first quarter of 2019. We expect to fund any such investments with a combination of cash on hand, cash generated from our operating activities and additional borrowings, including drawings under the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured HSBC Facility. The currently expected total net investment costs of approximately €465 million in connection with the proposed establishment of our newest paper mill (PM3) significantly exceed our earlier estimates of €375-400 million, primarily due to certain additional strategic and value accretive investments we decided to make, which we expect to have significant economical as well as ecological benefits once the new paper mill will be operational. A large portion of the increase in the expected total net investment costs relates to investments into more energy-efficient components as part of our overall waste-heat concept from the new paper mill. The installation of these components is not legally mandated, but we expect it will result in significant cost savings in the mid- to long-term as well as a reduction of CO₂ emissions of up to 151,000 tons per year. In addition, we decided to install a closed cycle waste water treatment system. Once our new paper mill is operating at the full intended capacity of 750,000 tons of containerboard, we expect that this closed cycle waste water treatment system will help us to avoid approximately 3,775,000 m³ of waste water per year, cut the fresh water consumption of the new paper mill by 3,750,000 m³ and reduce CO₂ emissions by approximately a further 19,900 tons per year. At full capacity, the system is expected to produce approximately 65,000,000 kWh per year of bio gas as part of the waste water treatment process. The paper mill will use this bio gas in connection with its production process, cutting its natural gas consumption by approximately 7-8%. We further believe that the proposed closed cycle waste water system will minimize our reliance on third party waste water treatment facilities (which have led to capacity constraints at our existing paper machine (PM2) in Eisenhüttenstadt, Germany in the past) and result in significant related cost savings in the future. We further decided to install (i) a steam turbine which will allow us to produce a portion of the electricity requirements of the new paper mill in an environmentally friendly manner and (ii) a direct rail connection, which will give us the option to ship a portion of our future production in an environmentally friendly manner by rail and, we believe, result in savings of freight cost and other operational benefits. An increase in the expected costs of the necessary civil engineering works, due to the booming construction sector, also contributed to the overall increase in the expected total net investment costs.

Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases

We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019. As already described in more detail above, apart from a further corrugated board production site (PW13) in Eisfeld, Germany which we have already commenced construction, we currently expect to establish up to three further corrugated board production sites between 2020 and 2023 (including a further corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021). See also “—*Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments*” above. Unless and until we complete the proposed new paper machine project (PM3), this

expected increase in our corrugated board production may cause us to further increase the level of internal containerboard sales to Board (and thereby the level of integration between Paper and Board) in 2019 and to increasingly rely on purchasing containerboard from third party suppliers. We believe that targeted external containerboard purchases that meet the specific sourcing requirements of Board will give us additional flexibility and provide us with opportunities to further optimize (i.e., minimize) our variable costs, for example, by allowing us to purchase containerboard that matches the specific grade and optimal trim-width required for our corrugated board production from time to time, from external suppliers located in close proximity to the relevant Board plants. We hope this will allow us to further reduce cutting scrap, further optimize logistics expenses and give us additional flexibility to optimize the utilization of our existing paper machines (PM1 and PM2).

Maintain cost leadership through continuous efficiency and profitability improvements

In order to maintain profitability throughout the economic cycle, we have implemented a comprehensive profitability improvement program (the “**Continuous Improvement Program**”) to ensure the long-term success of our Group. Our Continuous Improvement Program focuses on (i) improving the effectiveness of our sales and marketing activities, (ii) optimizing (i.e., minimizing) our variable costs and (iii) stabilizing our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry. Since 2012, our main focus in connection with our goal of achieving sales excellence has been on (i) growing our external sales in excess of the general growth in market volumes (and thereby increasing our market share), (ii) maximizing the impact of the introduction of our “next generation” products into the market and (iii) optimizing our sales portfolio. As part of our efforts to optimize our variable costs, we have focused on (i) reducing our consumption of raw materials, (ii) optimizing our energy consumption and energy costs, especially at our paper mill in Eisenhüttenstadt (PM2), and (iii) reducing the purchase prices of our key production factors, such as recycled paper, starch and freight services. Overall, we have met or exceeded our targeted benefits through our Continuous Improvement Program. We intend to continue to implement our Continuous Improvement Program and identify and realize further improvement opportunities. See also “—*Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases*” above.

RECENT DEVELOPMENTS AND TRADING UPDATE

Market Update

We experienced an exceptionally strong performance during most of 2018, with a €95.1 million or 52.7% increase in our EBITDA from €180.4 million in 2017 (22.4% of sales) to an exceptional €275.5 million in 2018 (28.5% of sales). Following this extraordinary performance in 2018, which was the result of our strong operating performance and supported by unusual favorable market conditions, price levels for both containerboard and corrugated board started to normalize towards the end of the fourth quarter of 2018, a trend which continued in the first and second quarters of 2019. During the same period, prices for recycled paper (our main raw material) remained stable at a relatively low level.

In April and May 2019, we saw a further softening of the prices for recycled containerboard of approximately €40 per ton in total across Central and Western Europe. In line with historic market price trends (i.e. the typical time lag between changes in input costs and the corresponding changes to the prices for our products), we expect to continue to see at least a temporary impact on our margins and EBITDA from the softening of price levels in recent months. Nevertheless, our EBITDA margin in the first quarter of 2019 (27.4% of sales) was still significantly above our own five-year average (23% of sales for the period between 2014 and 2018) and, we believe, also significantly above the industry average. Furthermore, as a sign that containerboard prices appear to be stabilizing, two European containerboard producers recently announced price increases for recycled containerboard of €60 per ton, effective as of June 2019. We also see good availability of recycled paper, which may result in price reductions for recycled paper.

New Senior Secured Facilities

On May 31, 2019, the Issuer and the Guarantors entered into the €30.0 million New Senior Secured Erste Bank Facility, the €30.0 million New Senior Secured LBBW Facilities and the €15.0 million New Senior Secured SaarLB Facility (together the “**New Senior Secured Facilities**”), primarily to fund the approximately €70-75 million of expected total investment into our proposed new corrugated board “mega plant” (PW14). The utilization of the New Senior Secured Facilities is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the

Additional Notes. As a result, the New Senior Secured Facilities will remain undrawn on the issue date of the Additional Notes. We may utilize the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the new Senior Secured SaarLB Facility until June, 2021, May, 2020 and May, 2020, respectively. For more details about the New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank Facility*”, “*Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities*” and “*Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility*”.

Trading Update

Based on management accounts, our operating performance for the month of April 2019 showed a strong corrugated board volume increase of 9.0% compared to April 2018, supported by (i) the successful and ongoing ramp-up following the commencement of production at our production site (PW11) in Drizzona, Italy in early March 2018, (ii) the commencement of production in January 2019 and subsequent ramp-up at our newest corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom and (iii) strong volume growth at our corrugated board operations in Poland. However, this increase in the volume of corrugated board sold was more than offset by a lower volume of externally sold containerboard and lower sales prices for both corrugated board and containerboard, which resulted in an approximately 3.8% decrease in sales from approximately €78.6 million in April 2018 to approximately €75.6 million in April 2019. Our EBITDA remained basically stable at €19.1 million in April 2019 compared to approximately €19.2 million in April 2018.

The foregoing financial information is based on internal unaudited consolidated monthly accounts for the months of April 2019 and 2018, respectively, which were prepared by and are the responsibility of our management. This financial information has not been audited, reviewed, compiled or the subject of any procedures by our independent auditors or any other audit firm and no opinion nor any other form of assurance is expressed with respect thereto. The foregoing financial information is inherently subject to modification during the preparation of our financial statements as of and for the three months ended June 30, 2019. The presented financial information is not representative for any three-month or twelve-month period and should not be regarded as an indication, forecast or representation by us or any other person regarding our future financial performance for the three months ended June 30, 2019 or the fiscal year ended December 31, 2019. See “*Forward-Looking Statements*” and “*Risk Factors*” for a more complete discussion of certain factors that could affect our future performance and results of operations.

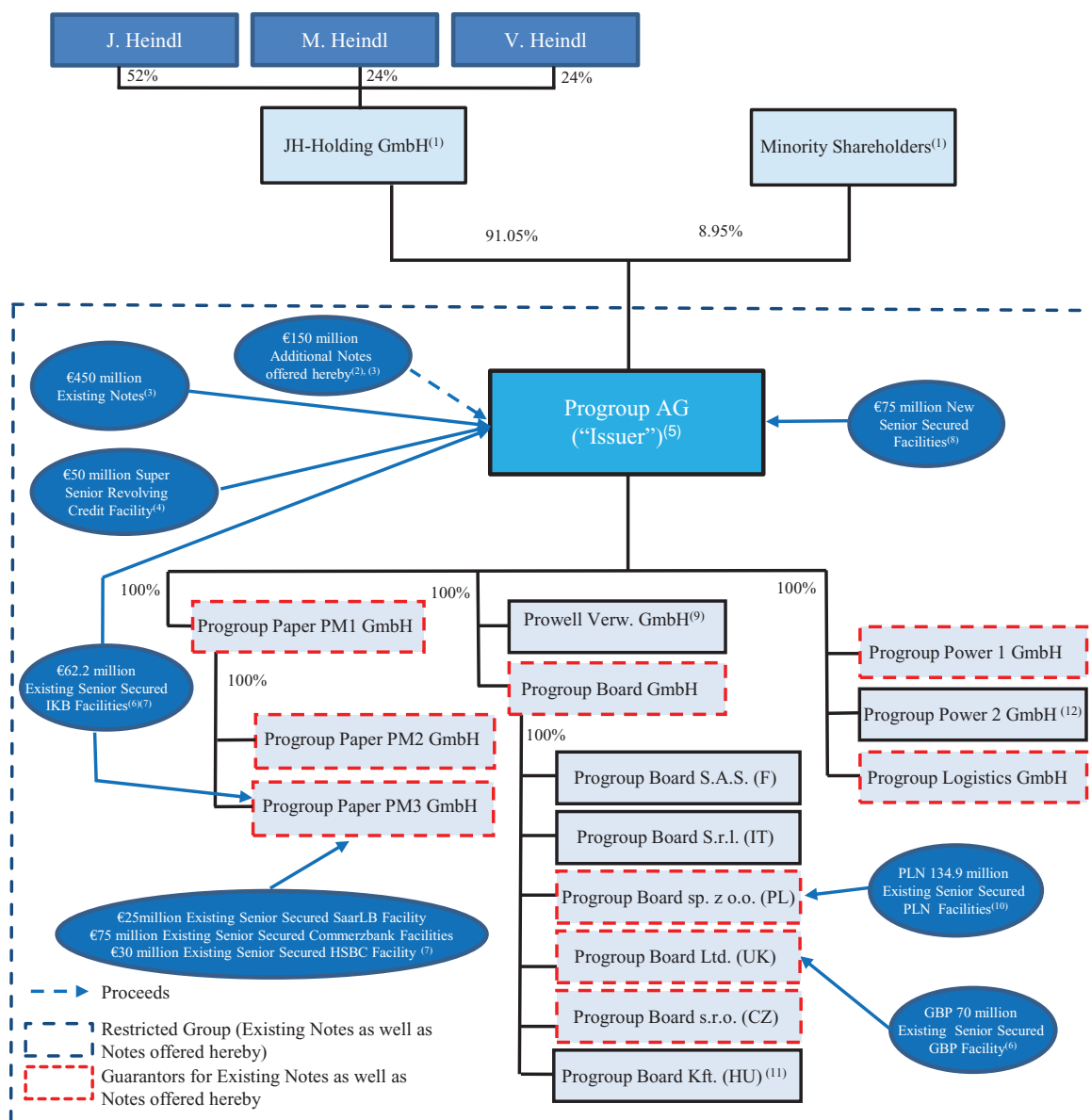
We currently also expect a strong increase in corrugated board volume for the full second quarter of 2019, compared to the second quarter of 2018. However, any potential future decreases in corrugated board prices as a result of the recent containerboard price decreases (see “*Market Update*” above) would have a negative impact on our results of operations.

THE REFINANCING

The “**Refinancing**” refers to the issuance of €150,000,000 aggregate principal amount of the Notes pursuant to the Offering and the use of the proceeds from the Offering, together with cash-in-hand, (i) to redeem in full the €150,000,000 outstanding principal amount of the Floating Rate Notes on or about June 1, 2019, and (ii) to pay costs, fees and expenses related to the Refinancing, including underwriting fees and commissions, commitment, placement, financial advisory and other transaction costs and professional fees.

OVERVIEW OF OUR CORPORATE AND FINANCING STRUCTURE

The following diagram depicts, in simplified form, our corporate and financing structure adjusted to give effect to the Refinancing as set forth under “*Use of Proceeds*” and the full utilization of all our Senior Secured Facilities as if they had occurred on the issue date of the Additional Notes. All company ownership is 100% unless otherwise indicated. For a summary of our material financing arrangements, see “*Description of Certain Financing Arrangements*” and “*Description of the Notes*”.



- (1) 91.05% of the registered share capital of the Issuer are being held by JH-Holding, a holding company controlled by our chief executive officer, Jürgen Heindl. The remaining 8.95% of the registered share capital of the Issuer are being held by our two minority shareholders who are not involved in the management of our business. Pursuant to a shareholders' agreement, the two minority shareholders have the right to jointly designate a member of our Supervisory Board. However, this right is currently suspended until October 2022. As a result, the two minority shareholders are currently not able to influence the composition of the Supervisory Board. The shares of the Issuer held by JH-Holding and our two minority shareholders will be included as part of the Collateral as of the issue date of the Additional Notes, although the Conditions of Issue will provide that the Security Agent will, at the request of the Issuer, a Guarantor or another security provider, release the Liens over the shares of the Issuer (without requiring the consent of the Holders' Representative or the Holders), upon the release and discharge (other than as a result of an enforcement action) of any and all Liens (other than Permitted Liens) over such shares, so long as no Event of Default exists at such time or would arise as a result of such release. See “*Description of the Notes—General—Security; Release of Collateral*”.
- (2) The Issuer is offering €150,000,000 aggregate principal amount of Additional Notes pursuant to this offering memorandum.
- (3) The Existing Notes are senior secured obligations of the Issuer and are guaranteed on a senior basis by the Guarantors. The Existing Notes and all obligations under the Existing Senior Secured Facilities are, and all obligations under the New Senior Secured Facilities and, upon issuance of the Additional Notes, the Additional Notes will be, secured by the Collateral, which

also secures the Super Senior Revolving Credit Facility, certain Hedging Obligations and certain Cash Management Liabilities, although any liabilities in respect of obligations under the Super Senior Revolving Credit Facility, certain Hedging Obligations and certain Cash Management Liabilities will receive priority over those of the Holders. See “*Description of Certain Financing Arrangements—Super Senior Revolving Credit Facility*” and “*Intercreditor Agreement*”. As of and for the twelve-month period ended March 31, 2019, the Issuer and the Guarantors accounted, on a consolidated basis, for 90.2% of our consolidated revenues (effects of intragroup transactions eliminated), 99.5% of our EBITDA (effects of intragroup transactions eliminated) and 96.4% of our consolidated total assets (effects of intragroup relations eliminated). The Guarantors’ obligations in respect of the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities and the Additional Notes may be released in certain circumstances. See “*Risk Factors—Risks Related to the Notes—There are circumstances other than repayment or discharge of the Notes under which the Collateral and the Guarantees may be released automatically, without your consent or the consent of the Holders’ Representative*”, “*Description of Certain Financing Arrangements—Intercreditor Agreement*” and “*Description of the Notes—Release of Note Guarantees*”.

- (4) On April 23, 2015, the Issuer and the then-existing Guarantors entered into the Super Senior Revolving Credit Facility which provides for up to €50.0 million of committed credit that may be drawn by certain members of the Group specified therein from time to time. The Super Senior Revolving Credit Facility is not expected to be drawn as of the issued date of the Additional Notes. The obligations of the borrowers under the Super Senior Revolving Credit Facility (and certain Hedging Obligations and Cash Management Liabilities) are guaranteed on a senior basis by the Issuer and the Guarantors and are secured by the same Collateral that secures the Existing Notes and the Existing Senior Secured Facilities and that will secure all obligations under the New Senior Secured Facilities and, upon issuance of the Additional Notes, the Additional Notes, on a super priority basis pursuant to the terms of the Intercreditor Agreement. The Super Senior Revolving Credit Facility contains an uncommitted “accordion feature” which gives us the option to increase the total commitments under the Super Senior Revolving Credit Facility from currently €50,000,000 to up to €80,000,000. For more details, see “*Summary—The Refinancing*”, “*Description of Certain Financing Arrangements—Super Senior Revolving Credit Facility*” and “*Description of Certain Financing Arrangements—Intercreditor Agreement*”.
- (5) The Existing Notes and the Guarantees with regard to the Existing Notes, the Existing Senior Secured Facilities, the Super Senior Revolving Credit Facility and certain Hedging Obligations and Cash Management Liabilities are, and the New Senior Secured Facilities and, upon issuance of the Additional Notes, the Additional Notes and related Guarantees will be, secured by first-priority security interests over (i) the shares of the Issuer, Progroup Board S.A.S. and each Guarantor; (ii) certain real property; (iii) certain bank accounts of the Issuer; and (iv) certain fixed and other assets (collectively, the “*Collateral*”). For further details on the Collateral, see “*Description of the Notes—General—Security; Release of Collateral*”. The Collateral will be subject to certain significant contractual and legal limitations or subject to certain defenses under applicable law, as described under “*Risk Factors—Risks Related to the Notes—Each Guarantee and the Collateral will be subject to certain limitations on enforcement and may be limited by applicable laws or subject to certain defenses that may limit its validity and enforceability*” and “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*”. Pursuant to the terms of the Intercreditor Agreement, amounts received or recovered in respect of enforcement of all or any part of the Collateral are required to be turned over to the Security Agent and, subject to the payment of fees and expenses of the agent under the Super Senior Revolving Credit Facility, the Holders’ Representative, certain other creditor representatives and the Security Agent, paid by the Security Agent first to the discharge in full of the obligations under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities and second to the discharge in full of the Existing Notes, the Existing Senior Secured Facilities, upon accession of the relevant creditors and creditor representatives to the Intercreditor Agreement, the New Senior Secured Facilities and, upon issuance of the Additional Notes, the Additional Notes. See “*Description of Certain Financing Arrangements—Intercreditor Agreement*”. The security interests may be released under certain circumstances. See “*Risk Factors—Risks Related to the Notes—There are circumstances other than repayment or discharge of the Notes under which the Collateral and the Guarantees may be released automatically, without your consent or the consent of the Holders’ Representative*”, “*Description of Certain Financing Arrangements—Intercreditor Agreement*” and “*Description of the Notes—General—Security; Release of Collateral*”.
- (6) On December 21, 2017, the Issuer and the then-existing Guarantors entered into the Existing Senior Secured IKB Facilities and the Existing Senior Secured GBP Facility. The Existing Senior Secured IKB Facilities originally provided for a €8.5 million Facility A and a €30.0 million Facility B, which we have fully utilized. However, as of December 31, 2018, the amount repayable under Facility A was reduced to €7.155 million as a result of a €1.345 million repayment grant. For more details about the Existing Senior Secured IKB Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured IKB Facilities*”. The GBP70.0 million Existing Senior Secured GBP Facility was also fully utilized as of the date of this offering memorandum. For more details about the Existing Senior Secured GBP Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured GBP Facility*”.
- (7) On July 13, 2018, to fund a portion of the expected investment into the establishment of our new paper mill (PM3) in Sandersdorf-Brehna, Germany, the Issuer and the Guarantors entered into (i) an amendment and restatement of the Existing Senior Secured IKB Facilities, adding an additional €25.0 million Facility C, refinanced by KfW, which may be utilized by Progroup Paper PM3 GmbH until August 10, 2019, (ii) the €25.0 million Existing Senior Secured SaarLB Facility, refinanced by KfW, which may be utilized by Progroup Paper PM3 GmbH until August 10, 2019 and (iii) the €75.0 million Existing Senior Secured Commerzbank Facilities, which consist of a €45.0 million Facility A, refinanced by KfW, which may be utilized by Progroup Paper PM3 GmbH until August 10, 2019, and two separate €15.0 million facilities (Facility B and Facility C), financed by Commerzbank itself, which are fully utilized as of the date of this offering memorandum. The €25.0 million Facility C under the Existing Senior Secured IKB Facilities, the €25.0 million Existing Senior Secured SaarLB Facility and the €45.0 million Facility A under the Existing Senior Secured Commerzbank Facilities remain undrawn as of the date of this offering memorandum, but we expect to fully draw all such facilities by August 10, 2019. For more details about the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured Commerzbank Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured IKB Facilities*”, “*Description of Certain Financing Arrangements—Existing Senior Secured SaarLB Facility*” and “*Description of Certain Financing Arrangements—Existing Senior Secured Commerzbank Facilities*”. To further secure the overall funding of our investment into our proposed new paper mill (PM3), the Issuer and the Guarantors further entered into the €30.0 million Existing Senior Secured HSBC Facility, which may be utilized by Progroup Paper PM3 GmbH until one month before December 31, 2023. The Existing Senior Secured HSBC Facility remains undrawn as of the date of this offering memorandum. For more details about the Existing Senior Secured HSBC Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured HSBC Facility*”.
- (8) On May 31, 2019, the Issuer and the Guarantors entered into the €30.0 million New Senior Secured Erste Bank Facility, the €30.0 million New Senior Secured LBBW Facilities and the €15.0 million New Senior Secured SaarLB Facility (together the

“**New Senior Secured Facilities**”), primarily to fund the approximately €70-75 million of expected total investment into our proposed new corrugated board “mega plant” (PW14). The utilization of the New Senior Secured Facilities is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the Additional Notes. The New Senior Secured Facilities will remain undrawn on the issue date of the Additional Notes. We may utilize the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the new Senior Secured SaarLB Facility until June, 2021, May, 2020 and May, 2020, respectively. For more details about the New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank Facility*”, “*Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities*” and “*Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility*”.

- (9) Dormant entity. Progroup Board Verwaltungsgesellschaft mbH was previously the general partner (*Komplementär*) of Progroup Board GmbH before Progroup Board GmbH was converted from a limited partnership (*GmbH & Co. KG*) to a limited liability company (*GmbH*).
- (10) On December 1, 2015, Progroup Board sp. z o.o., as borrower, the Issuer and the then-existing Guarantors, as guarantors, entered into the 2015 Senior Secured PLN Facility which provided for PLN 107 million of committed credit. In addition, on May 31, 2016, Progroup Board sp. z o.o., as borrower, the Issuer and the Guarantors, as guarantors, entered into the 2016 Senior Secured PLN Facility to fund the establishment of our corrugated board production site (PW10) in Trzcinica, Poland. The 2016 Senior Secured PLN Facility also provided for PLN 107 million of committed credit. As of March 31, 2019, PLN 58.9 million (carrying amount at March 31, 2019: €13.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on March 31, 2019) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 76.0 million (carrying amount at March 31, 2019: €17.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility. The PLN 134.9 million in aggregate borrowings under the Senior Secured PLN Facilities indicated in the diagram above as of March 31, 2019 do not reflect PLN 5.4 million and PLN 4.0 million, respectively, in scheduled repayments under the 2015 Senior Secured PLN Facility and the 2016 Senior Secured PLN Facility we will be required to make on June 30, 2019. For more details about the Existing Senior Secured PLN Facilities, including scheduled repayments on the Existing Senior Secured PLN Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured PLN Facilities*”.
- (11) We established Progroup Board Kft. in March 2019 in anticipation of the potential establishment of a further corrugated board production site in Hungary. As of the date of this offering memorandum, Progroup Board Kft. has not engaged in any significant activities.
- (12) We established Progroup Power 2 GmbH in October 2018 to be able to obtain the necessary regulatory approvals (simultaneously with the relevant regulatory approvals for our proposed new paper mill (PM3) in Sandersdorf-Brehna, Germany) for a potential future combined heat and power plant project that would potentially supply energy (production steam) to PM3 in the future. As of the date of this offering memorandum, Progroup Power 2 GmbH has not engaged in any significant activities.

THE OFFERING

The following is a brief summary of certain terms of the Offering. It may not contain all the information that is important to you. For additional information regarding the Notes and the Guarantees, see “Description of the Notes” and “Description of Certain Financing Arrangements”.

Issuer	Progroup AG.
Notes Offered	€150,000,000 aggregate principal amount of 3.000% senior secured notes due 2026 (the “ Additional Notes ”). The Additional Notes will constitute an increase (<i>Aufstockung</i>) of the €450,000,000 aggregate principal amount of 3.000% senior secured notes due 2026 that the Issuer issued on March 27, 2018 (the “ Existing Notes ” and, together with the Additional Notes, the “ Notes ”). The Additional Notes will have the same terms as the Existing Notes in all respects and will be consolidated with and form a single series (<i>Gesamtemission</i>) with the Existing Notes for all purposes, including, without limitation, waivers, amendments, redemptions and offers to purchase.
Issue Date of the Additional Notes ..	, 2019.
Issue Price	%, plus accrued interest, if any, from March 31, 2019.
Maturity Date	March 31, 2026.
Interest Rate	3.000%.
Interest Payment Date	Interest on the Additional Notes will be deemed to have accrued from March 31, 2019 and will be payable semi-annually in arrears on March 31 and September 30 of each year, commencing September 30, 2019.
Denominations	The Additional Notes will be issued in denominations of €1,000 and will be transferable only in minimum aggregate principal amounts of €100,000 and integral multiples of €1,000 in excess thereof.
Ranking of the Notes	<p>The Additional Notes will:</p> <ul style="list-style-type: none"> • be senior obligations of the Issuer and will rank equal in right of payment with all of the Issuer’s existing and future obligations that are not subordinated in right of payment to the Additional Notes, including obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the New Senior Secured Facilities, Priority Hedging Obligations and Cash Management Liabilities; • be secured by the Collateral (as defined under “—<i>Security</i>” below) along with obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the New Senior Secured Facilities, Priority Hedging Obligations and Cash Management Liabilities (but will receive proceeds from an enforcement of the Collateral (as defined below) only after all obligations secured on a super priority basis, including obligations under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities, have been paid in full); • rank senior in right of payment to any existing and future subordinated indebtedness of the Issuer; • effectively rank senior in right of payment to any existing or future unsecured obligations of the Issuer, to the extent of the

value of the respective collateral that is available to satisfy the obligations of the Issuer under the Additional Notes;

- be effectively subordinated to the Issuer's existing and future secured indebtedness that is secured by property or assets that do not secure the Additional Notes to the extent of the value of such property and assets securing such indebtedness; and
- be structurally subordinated to all existing and future obligations of the Issuer's subsidiaries that are not Guarantors (as defined below).

Guarantees The Additional Notes will be guaranteed (the "**Guarantees**") on a senior basis by Progroup Logistics GmbH, Progroup Board GmbH, Progroup Board s.r.o., Progroup Board sp. z o.o., Progroup Board Ltd., Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Paper PM3 GmbH, Progroup Power 1 GmbH (together, the "**Guarantors**"). See "*Description of the Notes—General—The Note Guarantees*".

The Guarantees will be subject to certain significant contractual and legal limitations or subject to certain defenses under applicable law. See "*Description of the Notes—General—The Note Guarantees*" and "*—Covenants—Future Guarantors*" and for more information on potential limitations to the Guarantees, see "*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*" and "*Risk Factors—Risks Related to the Notes—Each Note Guarantee and the Collateral will be subject to certain limitations on enforcement and may be limited by applicable laws or subject to certain defenses that may limit its validity and enforceability*".

The Guarantees may be released under certain circumstances. See "*Risk Factors—Risks Related to the Notes—There are circumstances other than repayment or discharge of the Notes, as applicable, under which the Collateral and the Guarantees may be released automatically, without your consent or the consent of the Holders' Representative*", "*Description of Certain Financing Arrangements—Intercreditor Agreement*" and "*Description of the Notes—Release of Note Guarantees*".

Ranking of the Guarantees Each Guarantee will be a direct, unconditional and irrevocable senior obligation of the relevant Guarantor, and:

- will rank equal in right of payment with all of such Guarantor's existing and future obligations that are not subordinated in right of payment to the relevant Guarantee, including obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the New Senior Secured Facilities, Priority Hedging Obligations and Cash Management Liabilities;
- be secured by the Collateral (as defined be secured as described below under "*—Security*" below) along with obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the New Senior Secured Facilities, Priority Hedging Obligations and Cash Management Liabilities (but will receive proceeds from an enforcement of the Collateral (as defined below) only after all obligations secured on a super priority basis, including obligations under the Super Senior

Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities, have been paid in full);

- will rank senior in right of payment to any existing and future subordinated indebtedness of the relevant Guarantor;
- will effectively rank senior in right of payment to any existing or future unsecured obligations of the relevant Guarantor, to the extent of the value of the Collateral that is available to satisfy the obligations of the relevant Guarantor under the applicable Guarantee;
- will be subject to limitations described in “*Description of the Notes*”; and
- will be effectively subordinated to such Guarantor’s existing and future secured indebtedness that is secured by property or assets that do not secure the Guarantee of such Guarantor, to the extent of the value of such property and assets securing such indebtedness.

Security The Additional Notes will be secured by first-ranking liens over the shares of the Issuer, Progroup Board S.A.S. and each Guarantor, certain real property, certain bank accounts of the Issuer, and certain fixed and other assets (the “**Collateral**”) as described in more detail under “*Description of the Notes—General—Security; Release of Collateral*”.

In the event of enforcement of the Collateral, the Holders of the Notes and the lenders under the Senior Secured Facilities will receive proceeds from such Collateral only after lenders under the Super Senior Revolving Credit Facility, Cash Management Liabilities and counterparties to Priority Hedging Obligations have been repaid in full.

The security interests over the Collateral or the enforcement thereof may be subject to certain significant contractual and legal limitations or subject to certain defenses under applicable law. Applicable law may require that a security interest in certain assets can only be properly perfected and its priority retained through certain actions which, in the case of some Collateral, may not be completed until after the issue date of the Additional Notes. See “*Risk Factors—Risks Related to the Notes—Rights in the Collateral may be adversely affected by the failure to perfect security interests in the Collateral*”. For more information on the security interests granted, see “*Description of the Notes—General—Security; Release of Collateral*” and for more information on potential limitations to the security interests, see “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*” and “*Risk Factors—Risks Related to the Notes—Each Guarantee and the Collateral will be subject to certain limitations on enforcement and may be limited by applicable laws or subject to certain defenses that may limit its validity and enforceability*”.

The security interests may be released under certain circumstances. See “*Risk Factors—Risks Related to the Notes—There are circumstances other than repayment or discharge of the Notes under which the Collateral and the Guarantees may be released automatically, without your consent or the consent of the Holders’ Representative*”, “*Description of Certain Financing*”.

Arrangements—Intercreditor Agreement” and “Description of the Notes—General—Security; Release of Collateral”.

Use of Proceeds The Issuer will use the gross proceeds from the Offering as set forth in *“Use of Proceeds”*.

Optional Redemption The Issuer may redeem all or part of the Notes at any time on or after March 31, 2021 at the redemption prices described under *“Description of the Notes—Optional Redemption”*.

At any time prior to March 31, 2021, the Issuer may redeem on any one or more occasions all or part of the Notes at a redemption price equal to 100% of the principal amount thereof, plus accrued and unpaid interest and Additional Amounts (as defined herein), if any, plus the Applicable Premium, as described under *“Description of the Notes—Optional Redemption”*.

At any time prior to March 31, 2021, the Issuer may on any one or more occasions redeem up to 35% of the aggregate principal amount of the Notes using the net proceeds from certain equity offerings at a redemption price equal to 103% of the principal amount thereof, plus accrued and unpaid interest and Additional Amounts, if any; provided that at least 65% of the original aggregate principal amount of the Notes remains outstanding after the redemption. See *“Description of the Notes—Optional Redemption”*.

Additional Amounts Any payments made by or on behalf of the Issuer or any Guarantor under or with respect to the Additional Notes or the Guarantees will be made without withholding or deduction for or on account of any taxes in any relevant taxing jurisdiction unless required by law. Subject to certain exceptions and limitations, if the Issuer or applicable Guarantor or paying agent is required by law to withhold or deduct such taxes with respect to a payment on any Additional Note or Guarantee, the Issuer or applicable Guarantor will pay the additional amounts necessary so that the net amount received after such withholding or deduction is not less than the amount that would have been received in the absence of the withholding or deduction. See *“Description of the Notes—Payment of Additional Amounts”*.

Tax Redemption If certain changes in the law of any relevant taxing jurisdiction become effective after the issuance of the Existing Notes that would impose withholding taxes on the payments on the Additional Notes and would require the Issuer or any Guarantor to pay Additional Amounts (as described in *“Description of the Notes—Payment of Additional Amounts”*), the Issuer may redeem the Notes in whole, but not in part, at any time, at a redemption price of 100% of the principal amount, plus accrued and unpaid interest, if any, and Additional Amounts (as defined above), if any, to the date of redemption. See *“Description of the Notes—Early Redemption for Taxation Reasons”*.

Change of Control If the Issuer experiences a change of control (as defined in the Conditions of Issue), the Holders of the Notes will have the right to require the Issuer to offer to repurchase the Notes at a purchase price equal to 101% of their principal amount, plus accrued and unpaid interest and Additional Amounts (as defined herein), if any, to the date of repurchase. See *“Description of the Notes—Repurchase at the Option of Holders upon a Change of Control”*.

Certain Covenants	<p>The Conditions of Issue will limit, among other things, the ability of the Issuer and its Restricted Subsidiaries to:</p> <ul style="list-style-type: none"> • incur or guarantee additional indebtedness or issue certain preferred stock; • pay dividends, redeem capital stock and make other distributions; • make certain other restricted payments or restricted investments; • prepay or redeem subordinated debt or equity; • create or permit to exist certain liens; • impose restrictions on the ability of the Restricted Subsidiaries to pay dividends; • transfer or sell certain assets; • merge or consolidate with other entities; • engage in certain transactions with affiliates; and • impair the security interests for the benefit of the Holders of the Notes. <p>Certain of the covenants will be suspended if and for as long as we achieve investment grade ratings. See “<i>Description of the Notes—Covenants—Suspension of Covenants</i>”. Each of the covenants in the Conditions of Issue will be subject to significant exceptions and qualifications. See “<i>Description of the Notes—Covenants</i>”.</p>
Transfer Restrictions	<p>The Additional Notes or the Guarantees have not been, and will not be, registered under U.S. federal or state or any foreign securities laws and are subject to restrictions on transferability and resale. See “<i>Transfer Restrictions</i>”. We are under no obligation to, nor do we intend to, register the Additional Notes or the Guarantees in the United States.</p>
Absence of a Liquid Market for the Additional Notes	<p>Although the Initial Purchasers have advised us that they currently intend to make a market in the Additional Notes, they are not obligated to do so and they may discontinue market-making at any time without notice. Accordingly, we cannot assure you as to the development or liquidity of any market for the Additional Notes. Furthermore, the Notes will not have registration rights under the U.S. Securities Act.</p>
Risk Factors	<p>Investing in the Additional Notes involves substantial risks. You should consider carefully all the information in this offering memorandum and, in particular, you should evaluate the specific risk factors set forth in the “<i>Risk Factors</i>” section before making a decision whether to invest in the Notes.</p>
Listing	<p>Application will be made to The International Stock Exchange Authority Limited (the “Authority”) for the listing of and permission to deal in the Additional Notes on the Official List of The International Stock Exchange (the “Exchange”). There is no assurance that the Additional Notes will be listed on the Official List of the Exchange, that such permission to deal in the Additional Notes will be granted, or that such listing will be maintained. Notwithstanding the foregoing, the Issuer may at its sole option at any time, without the consent of the Holders or</p>

the Holders' Representative, de-list the Additional Notes from any stock exchange for the purposes of moving the listing of the Additional Notes to another recognized stock exchange for high yield issuers (which may be a stock exchange that is not regulated by the European Union). See "*Description of the Notes—Maintenance of Listing*".

Governing Law The Additional Notes, the Guarantee Agreement, the Conditions of Issue, the Intercreditor Agreement, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and the New Senior Secured Facilities are or will be, as applicable, governed by German law. The Security Documents are or will be, as applicable, governed by applicable local law.

Certain U.S. Federal Income Tax

Considerations For a discussion of the U.S. federal income tax consequences of an investment in the Additional Notes, see "*Taxation—Certain U.S. Federal Income Tax Considerations*". You should consult with your own tax advisor to determine the U.S. Federal, state, local and other tax consequences of an investment in the Additional Notes.

Book-Entry and Form The Additional Notes will be represented by a separate global note in bearer form deposited and immobilized with, and held by, Clearstream Banking. Definitive notes representing individual Notes will not be issued. Transfer of the Additional Notes will be subject to the rules of Clearstream Banking and the terms of separate Book-Entry Registration Agreements among Clearstream Banking and the Issuer with respect to the Additional Notes.

Holders' Representative Deloitte GmbH Wirtschaftsprüfungsgesellschaft.

Security Agent Wilmington Trust (London) Limited.

Paying Agent Deutsche Bank AG.

Transfer Agent Deutsche Bank AG.

Listing Agent Carey Olsen Corporate Finance Limited.

SUMMARY CONSOLIDATED FINANCIAL AND OTHER INFORMATION

Progroup AG Financial Information

The financial information contained in the following tables is derived from the audited consolidated financial statements of the Issuer as of and for the fiscal years ended December 31, 2016, 2017 and 2018, from the unaudited condensed consolidated interim financial statements of the Issuer as of and for the three-month period ended March 31, 2019 as well as from the accounting records and other internal documents of the Issuer. The results of operations for prior periods are not necessarily indicative of the results to be expected for the full year or any future period.

In addition, we present certain unaudited consolidated financial information for the 12 months ended March 31, 2019. This information was derived by adding our consolidated financial information for the year ended December 31, 2018 derived from our audited consolidated financial statements to our unaudited consolidated financial information for the three months ended March 31, 2019 and subtracting our unaudited consolidated financial information for the three months ended March 31, 2018.

	Year ended December 31,			Three months ended March 31,		Twelve months ended March 31,
	2016	2017	2018	2018	2019	2019
	(audited, unless otherwise stated)			(unaudited)		
	(€ in thousands)					
INCOME STATEMENT AND OTHER DATA						
Sales	733,228	804,256	966,118	243,786	245,356	967,688
Increase/(decrease) in finished goods and work in process	(6,554)	10,298	23,361	(3,608)	(2,573)	24,396
Other operating income	14,713	17,603	17,725	1,573	3,335	19,487
Other own work capitalized	1,116	2,637	7,573	1,521	3,077	9,130
Total output (unaudited) ⁽¹⁾	742,502	834,795	1,014,778	243,273	249,196	1,020,701
Cost of materials	(371,550)	(430,481)	(493,641)	(119,321)	(117,791)	(492,112)
Gross profit (unaudited) ⁽²⁾	370,952	404,314	521,137	123,952	131,405	528,589
Personnel expenses	(61,423)	(68,326)	(78,925)	(18,367)	(21,352)	(81,910)
Other operating expenses	(154,293)	(160,425)	(168,800)	(42,355)	(42,501)	(168,946)
Other taxes	(1,479)	(1,449)	(1,453)	(350)	(328)	(1,431)
EBITDA (unaudited) ⁽³⁾	154,679	180,354	275,479	69,780	67,289	272,988
Amortization and depreciation of fixed intangible and tangible assets	(47,372)	(50,032)	(51,753)	(12,293)	(13,839)	(56,699)
Extraordinary net income/(loss)	—	—	—	—	—	—
Other interest and similar income	144	65	86	10	19	95
Interest and similar expenses	(25,334)	(23,678)	(32,062)	(6,007)	(6,089)	(32,144)
Consolidated net income/(net loss) before income tax (unaudited) ⁽⁴⁾	81,197	100,469	181,830	44,591	47,314	184,554
Taxes on income	(19,793)	(28,058)	(54,865)	(12,310)	(13,903)	(56,457)
Consolidated net income/(loss) for the period	61,404	72,412	126,965	32,280	33,411	128,096

	As of December 31,			As of March 31,
	2016	2017	2018	2019
	(audited, unless otherwise stated) (€ in thousands)			(unaudited) (€ in thousands)
BALANCE SHEET AND OTHER DATA				
Cash-in-hand, bank balances	37,370	117,946	148,431	135,993
Trade working capital (unaudited) ⁽⁵⁾	75,486	114,199	169,481	181,800
Fixed assets	639,855	640,980	742,184	807,648
Total assets	836,815	946,356	1,147,504	1,223,949
Total liabilities (unaudited)⁽⁶⁾	577,206	669,042	831,986	873,660
Total financial debt (unaudited)⁽⁷⁾	455,327	537,519	674,033	702,007
Net financial debt (unaudited)⁽⁸⁾	417,957	419,572	525,602	566,014

	Year ended December 31,			Three months ended March 31,		Twelve months ended March 31,
	2016	2017	2018	2018	2019	2019
	(audited, unless otherwise stated)			(unaudited)		
	(€ in thousands)					
CASH FLOW AND OTHER DATA						
Cash flows from operating activities	152,564	122,706	197,214	31,220	32,075	198,069
Cash flows from investing activities	(23,201)	(47,735)	(158,949)	(18,714)	(70,907)	(211,142)
Free cash flow (unaudited)⁽⁹⁾	129,363	74,971	38,265	12,506	(38,832)	(13,073)
Cash flows from financing activities	(110,257)	3,818	(6,267)	423,267	25,875	(403,659)
Net cash flow⁽¹⁰⁾	19,106	78,789	31,998	435,773	(12,957)	(416,732)
Effect on cash funds of exchange rate movements	(2,498)	1,787	(1,513)	(319)	519	(675)
Adjusted cash flow available for debt service (unaudited)⁽¹¹⁾	140,267	60,846	10,735	6,761	(42,810)	(38,836)

- (1) Total output (not a German GAAP measure) is calculated as the sum of sales, increase/(decrease) in finished goods and work in process, other operating income and other own work capitalized.
- (2) Gross profit (not a German GAAP measure) is calculated by deducting cost of materials from total output.
- (3) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. In response to changes to German GAAP, which have resulted in certain changes to the presentation of our financial information for the fiscal year ended December 31, 2016 in the table above, we have adjusted the way we calculate EBITDA to ensure consistency and comparability with our EBITDA reported for prior periods. While our reported EBITDA therefore excludes the impact of any “extraordinary” items for all periods presented, it has not yet been adjusted for “items of exceptional size or incidence”, which is a new concept under German GAAP introduced by the BilRUG. Excluding the negative effect of €16.0 million in “items of exceptional size or incidence” (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million.
- (4) Consolidated net income/(net loss) before income tax (not a German GAAP measure) is calculated by adding taxes on income back to consolidated net income/(net loss) for the period.
- (5) We define trade working capital (not a German GAAP measure) as inventories plus trade receivables, minus trade payables.

Our calculation of trade working capital can be reconciled to the balance sheet as follows:

	As of December 31,			As of March 31,
	2016	2017	2018	2019
	(audited, unless otherwise stated)			(unaudited)
	(€ in thousands)			(€ in thousands)
TRADE WORKING CAPITAL				
Inventories	73,944	86,864	110,512	108,001
Trade receivables	59,562	78,859	108,756	128,229
Trade payables	(58,020)	(51,524)	(49,787)	(54,430)
Trade working capital (unaudited)	75,486	114,199	169,481	181,800

- (6) Total liabilities is calculated as investment grants for fixed assets, plus provisions, plus liabilities, plus deferred income.

- (7) Total financial debt (not a German GAAP measure) means bank loans plus finance leases plus bonds, including the Existing Notes.
- (8) Net financial debt (not a German GAAP measure) is calculated by deducting cash-in-hand, bank balances from total financial debt.
- (9) Free cash flow (not a German GAAP measure) is defined as cash flows from operating activities plus cash flows from investing activities.
- (10) Net cash flow (not a German GAAP measure) is defined as net change in cash funds as presented in the Consolidated Cash Flow Statement.
- (11) We present adjusted cash flow available for debt service (not a German GAAP measure) as a measure of normalized free cash flow which can be used to service debt. We calculate adjusted cash flow available for debt service as cash flow available for debt service adjusted for the effects of extraordinary net income/(loss) as well as for the €16.0 million in “items of exceptional size or incidence” (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016.

Our calculations of adjusted cash flow available for debt service is as follows:

	Year ended December 31,			Three months ended March 31,		Twelve months ended March 31,
	2016	2017	2018	2018	2019	2019
	(audited, unless otherwise stated)					
	(€ in thousands)					
ADJUSTED CASH FLOW AVAILABLE FOR DEBT SERVICE						
EBITDA (unaudited)	154,679	180,354	275,479	69,780	67,289	272,988
Cash flow from change in total working capital (unaudited) ^(a)	13,032	(42,487)	(50,100)	(32,331)	(26,161)	(43,930)
—thereof cash flow from change in trade working capital (unaudited)	24,348	(38,713)	(55,282)	(28,531)	(12,319)	(39,070)
Taxes on income	(19,793)	(28,058)	(54,865)	(12,310)	(13,903)	(56,457)
Extraordinary net income/(loss)	(921)	(6,240)	(3,519)	(6,900)	(65)	(3,316)
Cash flows from investing activities	(23,201)	(47,735)	(158,949)	(18,714)	(70,907)	(211,142)
Other ^(b)	(496)	(1,228)	(830)	336	872	(294)
Cash flow available for debt service (unaudited) ^(c)	123,300	54,607	7,215	(139)	(42,875)	(35,521)
adding back extraordinary net income/(loss) . .	(921)	(6,240)	(3,519)	(6,900)	(65)	(3,316)
adding back items of exceptional size or incidence	16,046	—	—	—	—	—
—thereof additional costs as expenditure of exceptional size or incidence	13,914	—	—	—	—	—
—thereof lost sales	2,132	—	—	—	—	—
Adjusted cash flow available for debt service (unaudited)	140,267	60,846	10,735	6,761	(42,810)	(38,836)

(a) Cash flow from change in total working capital (not a German GAAP measure) is calculated as (increase)/decrease in inventories, trade receivables and other assets plus increase/ (decrease) in trade payables and other liabilities as presented in the Consolidated Cash Flow Statement.

(b) Other includes other non-cash expense/(income).

(c) Cash flow available for debt service (not a German GAAP measure) means EBITDA adjusted for the effects of changes in total working capital, extraordinary income/(expense), cash flows from investing activities and other, minus taxes on income.

Pro Forma and Other Financial Data

The following tables also set forth certain *pro forma* consolidated financial information, after giving effect to the Offering and use of proceeds therefrom, including the redemption of the Floating Rate Notes, as described under “*Use of Proceeds*”. It is being provided solely for illustrative purposes.

	As of and for the three months ended March 31, 2019
	(unaudited) (€ in millions, except for ratios)
PRO FORMA AND OTHER FINANCIAL DATA	
<i>Pro Forma</i> Senior Secured Debt ⁽¹⁾	702.0
<i>Pro Forma</i> Senior Secured Net Debt ⁽²⁾⁽³⁾⁽⁴⁾	569.0
Ratio of <i>Pro Forma</i> Senior Secured Debt to EBITDA	2.6x
Ratio of <i>Pro Forma</i> Senior Secured Net Debt to EBITDA	2.1x

- (1) *Pro Forma* Senior Secured Debt is calculated as total financial debt as of March 31, 2019, adjusted to give effect to the Offering and use of proceeds therefrom, including the redemption of the Floating Rate Notes, as described under “*Use of Proceeds*” as if they had occurred on March 31, 2019.
- (2) *Pro Forma* Senior Secured Net Debt is calculated as total financial debt minus cash-in-hand, bank balances, as of March 31, 2019, adjusted to give effect to the Offering and use of proceeds therefrom, including the redemption of the Floating Rate Notes, as described under “*Use of Proceeds*” as if they had occurred on March 31, 2019.
- (3) Figures do not reflect any drawings under Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities or the Existing Senior Secured HSBC Facility. Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities and the Existing Senior Secured HSBC Facility will remain undrawn on the date of this offering memorandum. We may utilize the €25.0 million Facility C under the Existing Senior Secured IKB Facilities, the €25.0 million Existing Senior Secured SaarLB Facility and the €45.0 million Facility A under the Existing Senior Secured Commerzbank Facilities until August 10, 2019. For more details about the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured Commerzbank Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured IKB Facilities*”, “*Description of Certain Financing Arrangements—Existing Senior Secured SaarLB Facility*” and “*Description of Certain Financing Arrangements—Existing Senior Secured Commerzbank Facilities*”. We may utilize the €30.0 million Existing Senior Secured HSBC Facility until one month before December 31, 2023. For more details about the Existing Senior Secured HSBC Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured HSBC Facility*”.
- (4) Figures also do not reflect any drawings under the New Senior Secured Facilities. The utilization of the New Senior Secured Facilities is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the Additional Notes. As a result, the New Senior Secured Facilities will remain undrawn on the issue date of the Additional Notes. We may utilize the €30 million, €30 million and €15 million under the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility until June, 2021, May, 2020 and May, 2020, respectively. For more details about the New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank Facility*”, “*Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities*” and “*Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility*”.

	Year ended December 31,			Three months ended March 31,		Twelve months ended March 31,
	2016	2017	2018	2018	2019	2019
	(unaudited)					
SELECTED OPERATING DATA						
Volumes sold (in 1,000 tons)	1,972	2,029	2,138	560	566	2,145
—Containerboard	1,042	1,018	987	265	259	981
—Corrugated board	930	1,011	1,151	295	307	1,164
Externally sold (in 1,000 tons)	1,234	1,252	1,327	348	342	1,320
—Containerboard	304	242	176	54	34	156
—Corrugated board	930	1,011	1,151	295	307	1,164
Average net selling price (ASP) per ton						
—Containerboard (€ per ton)	376	413	480	470	446	476
—Corrugated board (€ per ton)	634	657	730	709	715	731
Total recycled paper costs per ton (€ per ton)	130	150	108	122	103	103

RISK FACTORS

An investment in the Additional Notes to be issued in the Offering involves a high degree of risk. In addition to the other information contained in this offering memorandum, you should carefully consider the following risk factors before purchasing the Additional Notes. If any of the events described in the risk factors below occur, our margins and results of operations and financial condition could be materially and adversely affected, which in turn could adversely affect our ability to repay the Additional Notes. The risks described below are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially adversely affect our business, financial condition, operating results or prospects. In any such case, we may not be able to pay interest or principal on the Additional Notes when due and you may lose all or part of your investment in the Additional Notes.

This offering memorandum also contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward looking statements as a result of various factors, including the risks described below and elsewhere in this offering memorandum. See “Forward-Looking Statements”.

RISKS RELATED TO OUR INDUSTRY AND OUR BUSINESS

Demand for our products is generally driven by the level of economic growth and activity, which is dependent upon factors beyond our control.

Demand for our products is generally driven by the level of economic growth and activity. Increased levels of economic growth and activity typically result in higher per-capita use of packaging materials, both with respect to transportation of goods and consumer presentation. This increase in the use of packaging materials (including paper-based packaging materials), in turn, results in an increase in the demand for our recycled containerboard and corrugated board products. Because the markets for containerboard and corrugated board products in the developed economies in which we primarily operate are generally mature, historically there has been a close correlation between general economic growth and demand for packaging products such as corrugated containers and, therefore, for their component materials such as containerboard and corrugated board. As a result, our industry is affected by economic conditions in our markets, including changes in national, regional and local unemployment levels, shifts in consumer spending patterns, credit availability, and business and consumer confidence. Disruptions in the overall economy and volatility in the financial markets could reduce consumer confidence, negatively affecting consumer spending, which could be harmful to our financial position and results of operations. We have been impacted by difficult economic conditions in the past. The European debt crisis, for example, resulted in market uncertainty generally and in weak economic conditions, particularly in the Eurozone, which had a significant negative impact on our results of operations and financial condition. We are unable to predict the timing or duration of any downturn in the economy that may occur in the future or the timing or rate at which economic conditions in our markets may recover in the case of any such downturn. While we experienced historically strong operating results in 2016, 2017 and in particular 2018, we believe it is unlikely that our exceptionally strong operating performance in 2018 will continue or that our margins and/or EBITDA will not materially decline.

The cyclical nature of our industry often results in overcapacity which negatively impacts our results of operations.

We principally generate revenue through the sale of containerboard and corrugated board. Our mills primarily sell the containerboard we produce to Group-owned corrugated board plants, and we sell our corrugated board to our third-party customers in the packaging industry. Our operating results are therefore impacted by the packaging industry’s historical cyclical pattern, with periods of overcapacity and resulting pressure on pricing of packaging products such as corrugated containers and, in turn, their component materials such as containerboard and corrugated board. This cyclicity results, in part, from significant imbalances in supply and demand for containerboard. On the one hand, containerboard production capacity cannot be readily adapted to reflect changing market conditions, due to the high capital intensity of facilities such as containerboard mills (which generally continue production as long as paper prices are sufficient to cover their marginal costs), the long lead time between the planning and completion of new containerboard mills and the fact that new additions of containerboard capacity tend to be large relative to the overall demand for the product. On the other hand, significant containerboard and corrugated board price reductions and inventory growth have resulted when capacity has exceeded demand. In addition, there is the potential to convert graphic and newsprint paper machines into

containerboard machines which has happened recently both in Europe and the United States, and which may contribute to overcapacity. Consequently, the containerboard and corrugated board industry has from time to time experienced periods of substantial overcapacity and there can be no assurance that this will not reoccur. Overcapacity in the European market has generally had a negative impact on prices. See “*Industry and Competition—End-Markets Dynamics*” and “*Industry and Competition—Key Market Developments*”.

In the absence of sufficient economic growth to generate increased demand or the closure of facilities (either temporarily or permanently) to mitigate the effect, new capacity can cause a period of regional overcapacity which may lead to downward pricing and margin pressure. In periods of overcapacity, industry participants may stop operating certain of their production facilities periodically to reduce inventory levels. In the past, many leading paper manufacturers have reacted to reduced demand by taking downtime and by rationalizing high-cost and inefficient capacity. Due to the high level of integration between our two mills and our corrugated board production sites, it is unlikely that we would take downtime at our mills for any significant length of time, but even if we did so and our competitors continue production at high levels, our sales volumes could be adversely affected without any significant offsetting benefit of improved prices in the market. In the event that the industry as a whole does not take sufficient downtime or other measures to reduce capacity during any periods of overcapacity, this could have a material adverse effect on our margins and results of operations and financial condition.

Overcapacity in the European containerboard and/or corrugated board markets could be further exacerbated by an increase of imports from other regions and/or a decrease of exports by European producers to other regions, as a result of a variety of factors. For example, in the event that producers in other regions (particularly the United States and China) experience overcapacity within their own local and regional markets, they may seek to increase their level of exports to Europe and do so at lower pricing levels. This could adversely affect our selling prices and profitability. In addition, the level of exports of containerboard from or to Europe also depends on relevant freight rates and currency rates. A strong euro, for example, can have a negative effect on (U.S. dollar-denominated) exports by European containerboard manufacturers with a negative (for our business) effect on the supply and demand balance and an immediate effect on the pricing of containerboard in Europe. In addition, a weak U.S. dollar over a sustained period has, in the past, also resulted in lower sales by other European manufacturers who ship products in corrugated packaging, resulting in lower European demand for corrugated packaging, and therefore for our containerboard and corrugated board. See also “*We are exposed to currency exchange rate fluctuations*”.

We could be adversely affected by the loss of one or more important customers and the nature of, and close relationships with, our small and medium-sized customers exposes us certain risks.

In 2016, 2017, 2018 and in the first three months of 2019, no single customer represented more than 5% of our total sales. However, our level of customer concentration may increase in the future as a number of industries have experienced consolidation in the past and the packaging industry in which our customers operate may also be affected by consolidation in the future. In addition, while no particular customer is significant to our Group as a whole, a number of our customers account for a significant portion of the sales volumes of one or more of our individual corrugated production sites. Therefore, a loss of one or more of those customers could have a material adverse effect on the utilization and results of operation of the affected corrugated board production sites and negative impact our Group’s total sales. For example, one of our largest customers, which accounted for 4% of our total sales in 2016, commenced production at its own, newly-established corrugated board production facility at the end of 2016. As a result, we lost approximately 90% of our related corrugated board sales with that customer in 2017. If other Board customers similarly establish their own corrugated board production facilities, it is likely that we would also lose most or all of our related corrugated board sales to any such customers. In addition, a large proportion of our customers are small- or medium-sized, family-owned businesses that are managed by members of the owner family. A sale of any of those businesses to one of our competitors or to a box manufacturer with its own corrugated board production, either in connection with a succession event or otherwise, may therefore lead to a loss of the relevant customer. Furthermore, our own performance and potential future growth generally depends, to a large extent, on the performance of our customers, which are exposed to many of the same risks as our own business. Our small- and medium-sized customers may also be particularly vulnerable (i) to competition from larger competitors with greater financial resources and which are able to capitalize on their economies of scale and (ii) to pricing pressure from their own, often much larger customers.

The standardized nature of containerboard could result in downward pressure on pricing and, as a consequence, lower earnings.

Containerboard cannot generally be differentiated by producer, and this standardization has led to intensified price competition. This, in turn, creates significant downward pressure on the prices of our products during periods of market overcapacity or weak demand, which could reduce sales and have a material adverse effect on our margins and results of operations and financial condition. Our business has in the past faced significant downward pricing pressure, including as a result of standardization in the markets in which we operate. Given the general upward trend in almost all our input costs and the potential for an increase in the currently stable energy prices, we expect we will need to further increase prices in the mid- to long-term to ensure that earnings from recycled containerboard remain at a long-term sustainable economic level. We are likely to continue to be exposed to such factors in the future. If we are unable to adjust our cost base or achieve economies of scale comparable to our competitors, pricing pressure could have a material adverse effect on our margins and results of operation and financial condition.

Operational disruptions at our facilities, in particular our two mills, could have a material adverse effect on our margins, results of operations and financial condition.

We currently operate two containerboard mills in Germany, which account for all of our containerboard production. Each of them is, therefore, critical to our business. If operations at either of our two mills were interrupted for any significant length of time, either because of natural disasters (such as flooding or fire), man-made disruptions (such as labor strikes), failure to obtain raw materials, technical defects, accidents or for any other reason, it would have a material adverse effect on our business, results of operations and financial position. For example, a technical defect at our mill in Eisenhüttenstadt caused multiple shutdowns during 2011 and 2012, resulting in significant loss of containerboard production and significant financial loss, which was only partly covered by compensation payments from one of our equipment manufacturers in the following year. In addition, due to the high level of integration between our two mills and our corrugated board production sites, any significant interruption of our containerboard production at one or both of our mills would also have a significant adverse effect on our corrugated board production and our ability to supply our corrugated board customers. Any significant disruptions at one or more of our corrugated board production sites, either because of problems with our containerboard supply (either from our two mills or from external suppliers) or for any of the other reasons listed above, could also have a material adverse effect on our business, results of operations and financial condition. Due to the currently very high level of utilization of most of our production sites, our ability to fulfill customer orders from alternative sites in case of a significant disruption at one of more production sites is limited. Finally, the operation of most of our production sites also depends on key services and infrastructure provided by third parties. For example, we rely on highly specialized employees of our equipment suppliers to ensure the proper maintenance and repair of our production equipment. In addition, the uninterrupted operation of our paper mill in Eisenhüttenstadt depends, among other things, on the availability of a waste water treatment plant operated by the local municipal utility and a secure supply of production steam either by the CHP and/or by a neighboring power plant which we use as a back-up solution. In 2016, 2017 and 2018, capacity limitations of the local waste water treatment plant in Eisenhüttenstadt due to technical faults have led to temporary reductions in the containerboard production capacity of our paper machine PM2. Significant future capacity limitations of the local waste water treatment plant or a shutdown of the local waste water treatment plant would require us to reduce or shutdown containerboard production at our paper machine PM2, as there are no alternative local water treatment options. In addition, due to technical faults in the steam pipeline that connects our mill in Eisenhüttenstadt to the neighboring power plant, there is no guarantee that this back-up solution will be available in the event of maintenance or other shutdowns of the CHP. Furthermore, our insurance coverage may be inadequate or not cover all losses. See *“—Our insurance coverage may not be adequate to cover all the risks we may face and if we were no longer covered by our existing insurance, it may be difficult to obtain replacement insurance on acceptable terms or at all”*. If one or more of the aforementioned risks materializes, this could have a material adverse effect on our business, results of operations and financial condition.

We are exposed to intense competition in the containerboard and corrugated board industry.

We operate in a highly competitive and fragmented industry. The containerboard and corrugated board industry is characterized by a high level of price competition as well as other competitive factors, including innovation, design, quality and service. To the extent that any of our competitors are more successful with

respect to any key competitive factor, our margins, results of operations and financial condition could be adversely affected. Pricing pressure could arise from, among other things, limited demand growth and existing overcapacity in the market in question, new competitors entering the market, capacity increases by competitors, including by converting, enhancing or intensifying the use of existing production facilities or by setting up additional production facilities, price reductions by competitors, the ability of competitors to capitalize on their economies of scale and create excess product supply, the ability of competitors to operate or successfully relocate or open production facilities in countries where production costs are lower than those in which we operate and the access of competitors to new technology which we do not possess.

We are exposed to the risk of product substitution.

The products of our customers in the paper-based packaging industry compete with other forms of packaging, principally reusable plastic containers. Substitution of plastic containers for corrugated containers may increase in the future and other substitute products may be introduced. Future packaging developments and trends may drive further substitution. Substitution is also possible between solidboard packaging and corrugated containers, with the generally lower cost of corrugated containers offset by the moisture and temperature handling characteristics of solidboard packaging. In addition, there has generally been increasing scrutiny of single-use packaging, its sustainability and impact on the environment. While the primary focus of this increasing scrutiny has, so far, been on plastic packaging, there can be no guarantee that paper-based packaging will not also face increasing scrutiny, which may result in regulatory action and/or changes in customer preferences in favor of reusable forms of packaging. Any significant substitution away from paper-based packaging products or from corrugated board to solidboard may adversely affect the demand for our products and therefore our results of operation and profitability.

Price fluctuations in raw materials and our ability to pass on price increases could affect our results of operations.

Our margins and overall profitability are significantly affected by the price of raw materials and the length of time it takes us to translate price increases in raw materials and other input costs into prices we charge for third-party sales of containerboard and corrugated board. To the extent our containerboard is sold internally, our profitability will only be affected by the ability to recover any price increases from third-party sales of corrugated board to our third party customers in the packaging industry. Furthermore, to the extent that selling prices fall, if we are unable to generate cost savings through producing products more efficiently or lower our fixed costs, our results may be negatively affected.

In total, raw materials accounted for 75.2%, 73.5% and 71.6%, respectively, of our cost of materials in the year ended 2017 and 2018 and the first three months of 2019. Our primary raw materials are recycled paper, particularly old corrugated containers, and containerboard. The prices for these raw materials tend to be volatile, and price fluctuations affect our margins. Recycled paper is used in the manufacture of our containerboard products and is purchased in increasingly competitive, price-sensitive markets. Recycled paper has historically exhibited price and demand cyclicity and high price volatility over short periods and may do so again in the future. In particular, the price of recycled paper depends on a variety of factors over which we have no control, including environmental and conservation regulations, natural disasters and weather. A decrease in the supply of such raw materials has caused, and any such decrease in the future can be expected to cause, higher costs of materials. In addition, the increase in demand for products manufactured, in whole or in part, from recycled paper has in the past caused an occasional supply or demand imbalance in the market for recycled paper. Chinese purchasers have been in the recycled paper market for a number of years and have become material purchasers in the sector due to significant ongoing expansion of their recycled containerboard mills' capacity. Other important drivers of recycled paper prices are collection rates of recycled paper as well as freight rates and exchange rates, which both affect the level of exports of recycled paper from Europe to other markets. In the past, significant decreases in the prices for recycled paper have led to a reduction in collection activity, which, in turn, can lead to supply shortages. The effect of these and other factors has been to create volatility with respect to the price of recycled paper, and we expect recycled paper prices to continue to fluctuate based upon supply and demand characteristics.

In addition to recycled paper, which we use extensively in our containerboard production at our two mills, we also purchase containerboard from external suppliers as a raw material for our corrugated board production. The prices of containerboard can also be highly volatile. See also “—Demand for our products is generally driven by the level of economic growth and activity, which is dependent upon factors beyond our

control” and “—The cyclical nature of our industry often results in overcapacity which negatively impacts our results of operations” above, as well as “—We are exposed to currency exchange rate fluctuations” below.

An important driver of recycled paper prices is the balance of supply and demand for paper products in general as well as collection rates of recycled paper. When the price of recycled paper begins to rise, containerboard manufacturers attempt to raise their prices to preserve profit margins, which generally narrow as a result of increased raw material costs. It typically takes approximately two to three months for the containerboard mills to pass on their raw material price increases to the corrugated board manufacturers. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for manufacturers, including us, to pass these increases on to their customers. In particular during periods of rising recycled paper prices, our profitability has therefore historically been adversely affected.

However, our ability to pass the costs of our raw materials and other input costs on to our packaging customers depends on a number of other factors, including the supply and demand balance for containerboard and corrugated board in a particular region and the ability of our customers to maintain or increase prices with their own customers. We generate almost all of our sales through purchase orders from our customers based on our price lists which we adjust in response to market price movements and only have very few contracts with our customers which provide minimum purchase obligations and/or pricing clauses that would allow us to automatically pass increased costs on to our customers. As a result of these factors, there can be no guarantee that the price of recycled paper and the prices for our containerboard and corrugated board products will always be closely correlated. Any extended mismatch between the price of recycled paper and the market prices for our products could have a significant effect on our margins and results of operations and financial condition.

For example, between 2009 and 2010, our results of operations and financial condition deteriorated. There were two main reasons for this deterioration. First, the global financial and economic crisis led to a significant drop in the price of recycled paper, our main raw material, in the second half of 2008, but also to a significant decrease in the demand for our products and a corresponding decrease in the market prices for both containerboard and corrugated board. Following the significant drop in the prices for recycled paper in the second half of 2008, the prices for recycled paper started to recover in the first half of 2009, notwithstanding the continuing economic weakness and contrary to historic trends. This, in turn, led to a compression of our margins up to a point during the third quarter of 2009 when the sales prices for some of our finished products were insufficient to cover our variable input costs. As a result, we incurred significant losses and a few of our competitors were forced to close or mothball less efficient production facilities, which led at least temporarily to a drop in market-wide containerboard and corrugated board capacity. Our margins only returned to near sustainable levels towards the end of 2010, following multiple rounds of price increases for recycled paper, containerboard and corrugated board.

Increased energy costs could have a material adverse effect on our business, financial condition and results of operation.

Our production processes, in particular our containerboard production at our two mills, are energy intensive, and energy costs, including costs for electricity, gas and steam, represent a significant portion of our total cost of materials. As described in more detail under *“Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Results of Operations—The CHP Acquisition”*, effective as of midnight on December 31, 2015, we acquired Progroup Power 1 GmbH from EnBW, the CHP and certain related assets outright. As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves. Despite the completion of the CHP Acquisition our production processes are nevertheless reliant on third parties for the supply of energy. Market prices for energy, in particular for electricity, oil and natural gas, have historically been volatile and have had a corresponding effect on our production costs. If energy prices increase in the future, this would increase our production costs, which could consequently have a material adverse effect on our profitability. See also *“—Our energy costs, in particular in Germany, are dependent on the regulatory framework for the electricity sector, which is subject to constant change and, in addition, we may face material cost increases if we lose certain financial privileges which we benefit from in Germany with regard to the Renewable Energies Act (Erneuerbare Energien Gesetz, “EEG”) surcharge and network access fees and other fees”* below.

Although we expect that the CHP Acquisition will lead to a sustained reduction of our energy costs, as described in more detail under *“Management’s Discussion and Analysis of Financial Condition and Results*

of Operations—Key Factors Affecting our Results of Operations—The CHP Acquisition”, neither the CHP Acquisition nor the other measures we have taken to reduce our exposure to fluctuating energy prices may be adequate and they may even be counter-productive. Following completion of the CHP Acquisition, we have become directly responsible for, and are bearing all risks related to, the day-to-day operation of the CHP, which includes responsibility for unexpected repair costs, for any shutdowns of the CHP as well as the operational risks associated with the disposal of the ash generated by the CHP (*i.e.*, that we are unable to procure the proper disposal of the ash and may therefore be forced to shut down the CHP). There can be no guarantee that the operating expenses for the CHP will not increase in the future. See also—*We may not be successful in operating the CHP ourselves in the long run*”. In addition, we bear the full economic risk related to the procurement of refuse-derived fuels for the CHP. Further, our outside suppliers may default on their obligations under our refuse-derived fuel supply agreements with them. Any significant increase in market prices, transportation costs, grid fees or taxes (including by reduction of tax benefits) associated with the supply of energy would also increase our operating costs. Any inability or delay in passing on increases in energy costs to our customers or any interruption or shortage of energy supply may negatively impact our margins and results of operations and financial condition.

Our energy costs, in particular in Germany, are dependent on the regulatory framework for the electricity sector, which is subject to constant change and, in addition, we may face material cost increases if we lose certain financial privileges which we benefit from in Germany with regard to the Renewable Energies Act (Erneuerbare Energien Gesetz, “EEG”) surcharge and network access fees and other fees.

In addition to general market dynamics, our energy costs are influenced by the relevant regulatory framework for the electricity sector both on the European and the national level. In the past years, this regulatory framework has been subject to substantial change and it will continue to be subject to change in the future. Such change is not only due to legislative reforms, but is also prompted by administrative and judicial decisions.

In Germany, where both our mills are located, our energy costs have been strongly impacted by regulatory decisions related to the so-called “*Energiewende*”, a significant shift in government policy following the nuclear accident in Fukushima, Japan in 2011. This new German energy policy focuses on promoting the development of renewable energy sources and contemplates the complete cessation of the production of nuclear power by 2021. To mitigate the impact of the resulting significant increases in electricity prices for energy-intensive industries, the German government adopted rules that provide for various businesses, including us, to be reimbursed for certain infrastructure investment surcharges necessary for the implementation of the “*Energiewende*”. However, those rules have not only been subject to challenges in German courts and EU scrutiny as potentially illegal subsidies, but also continue to be the subject of political scrutiny by various interest groups. Although the relevant rules have been modified to address certain of these concerns, there is no guarantee that they will not change again or that we will continue to be able to benefit from current accommodations, reimbursement rules and/or energy tax refund schemes. In particular, it cannot be ruled out that the EU may introduce more stringent conditions for any such accommodations, reimbursement rules and/or energy tax refund schemes in the future and/or may further restrict the ability of companies to combine benefits of different reduction schemes (so-called “*cumulation*”). As an “energy-intensive enterprise”, we have historically benefitted, and in 2019 we continued to benefit, from considerable reductions of the so-called EEG surcharge (*EEG Umlage*), a charge which is levied on electricity consumers to fund the financial promotion of renewable energy sources. In 2016, 2017, 2018 and the first three months of 2019, for example, such reductions decreased our energy costs by approximately €28.6 million, €30.4 million, €30.3 million and €7 million, respectively.

Other countries in which we operate production facilities or may operate production facilities in the future, may adopt similar policies in order to promote the usage of renewable energy sources. As a consequence thereof, the energy price could increase and there can be no guarantee that we will be reimbursed to the extent to which the price increased, to the same extent as currently in Germany or even at all. This could consequently adversely affect the revenue of our production facility and may force us to adopt capital-intensive countering measures or ultimately close the plant. In addition, we currently benefit from various other privileges and exemptions from energy-related laws and regulations in Germany, including benefits pursuant to § 19 of the German Ordinance on Electricity Network Access Fees (*Stromnetzentgeltverordnung*), the German Electricity Tax Act (*Stromsteuergesetz*) and other laws and regulations. Should we lose any or all of these privileges and exemptions, this could have a material adverse effect on our margins and results of operations and financial condition. Finally, compliance with

the EU Emission Trading Scheme Directive (the “ETS”) could significantly increase our costs. Our two existing mills are, and our proposed third mill (PM3) will be, subject to the ETS.

The paper industry was granted the status as a so-called “Carbon Leakage” sector and our existing two mills have therefore been allocated a certain amount of CO₂ emission certificates for free. Historically, the collective CO₂ allocations granted to our two existing mills have exceeded our collective annual CO₂ emissions. The revised ETS Directive for the period 2013-2020, however, has been slowly reversing this excess position over time. The free allocation rules for the fourth trading period (2021-2030), which were adopted in December 2018, still contemplate the allocation of free CO₂ emission certificates for Carbon Leakage industries, and the latest Carbon Leakage list for the years 2021-2030 adopted by the European Commission effective as of May 2019 still lists the paper industry as threatened by Carbon Leakage for this upcoming trading period. As a result, we currently expect that our two existing mills and our proposed new mill (PM3) will continue to be allocated at least a portion of the CO₂ emission certificates required for their operation free of charge. However, even with these expected free CO₂ allocations, there is considerable risk that in the future our costs will significantly increase and will not be recovered through higher prices for our end products. See also “*Business—Regulatory Environment—Regulation governing the operation of the CHP*”.

We may fail in successfully implementing our business strategy.

In order to continue to realize cost savings or process optimizations, we must continue to optimize our costs, improve our procurement process, realize certain operating efficiencies and improve the efficiency of our sales force. Key focus areas of our Continuous Improvement Program involve (i) improving the effectiveness of our sales and marketing activities, (ii) optimizing (*i.e.*, minimizing) our variable costs and (iii) stabilizing our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry. As we are unable to influence commodity and energy prices directly, our competitiveness and long-term profitability are, to a significant degree, dependent upon our ability to reduce costs (including the costs of raw materials and consumables such as power, labor and transport) and maintain low-cost, efficient operations. Our production costs are also significantly affected by production volumes and, therefore, our ability to maintain production levels and maximize capacity utilization will be a key factor in determining our overall cost competitiveness. Our ability to maintain earnings and undertake capital expenditure could be adversely affected in the event of a sustained material fall in prices for our products, an appreciable rise in our production costs or a decline in our production volumes. A number of factors beyond our control, such as operating disruptions, personnel turnover, competition, unforeseen delays in implementing initiatives and general economic and industry conditions as well as future development on the energy markets, could have an adverse effect on our ability to implement our strategy by limiting our ability to grow or our ability to reduce costs and increase efficiency which could have a material adverse effect on our business. We may not be successful in achieving cost savings, generating growth and increasing our cash flows and profitability.

Efforts to improve our operational efficiency in accordance with our business plan may not be effective and may adversely impact our sales and marketing operations, product development and production processes.

We have implemented and are continuing to implement various projects to improve our operational efficiency, including our production network and processes as well as sales, marketing, procurement and product development. Some of these operational improvement initiatives and cost reduction measures represent important aspects of our business plan, in particular our initiatives in connection with the continuing optimization of our paper machine PM2 and our continuing efforts to further optimize production of our paper machine PM1 and our corrugators. See also “*Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results of Operations—Continuous Improvement Program*” and “*Business—Our Strategy—Maintain cost leadership through continuous efficiency and profitability improvements*”.

If our ongoing efforts to improve our operational efficiency fail or the implementation of cost improvement measures are not effective, sustainable or achievable within the anticipated time frame, the quality and cost of our products and our competitive position in the industry may suffer. Additionally, because we have factored the expected benefits of these improvement initiatives and cost reduction measures into our business plan, our inability to successfully execute these plans or our failure to realize the expected economic benefits of these plans could have a material adverse effect on our margins and results of operations and financial condition.

The costs and difficulties of integrating complementary businesses through organic and acquisitive expansion could impede our future growth and adversely affect our competitiveness.

To maintain and further strengthen our position as a leading, low-cost corrugated board producer in Europe in the long-term and to allow us to successfully meet ongoing and expected future market growth and the requirements of our customers with regard to supply certainty and product quality, we intend to continue to make prudent and controlled investments to further expand and improve the efficiency of our production facilities as part of our long-term “Two Twentyfive” strategy. In addition to the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland in 2017 and early 2018 following commencement of commercial production in April 2017, we commenced production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, and our newest corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom in January 2019. In the short-term to mid-term, we intend to continue to make significant further investments in expanding our corrugated board production capacity, and we have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany (with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020) and currently expect to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023, including a further corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021. In order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Progroup Board, we have also begun to actively pursue the realization of a further paper machine project (PM3) in Sandersdorf-Brehna, Germany. We currently expect total net investment costs (i.e. net of expected subsidies) of approximately €465 million for just this new paper machine project over a several year period, including approximately €116.7 million of initial expenditures (e.g. for advance payments for the paper machine and certain preliminary work) we had already incurred as of the end of the first quarter of 2019. See also “*Business—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments*” below.

Risks that we could face with respect to any those proposed and any potential further expansion project may include:

- greater than expected costs and management time and effort involved in identifying, completing and integrating expansions, acquisitions, packaging park projects or joint ventures;
- potential disruption of our ongoing business and difficulties in maintaining our internal control environment, information systems and procedures;
- the inability to successfully integrate the services, products and personnel of any acquisition into our operations or to realize any expected cost savings or other synergy benefits from any acquisition;
- customer overlap/loss of customers supplied prior to the acquisition by both us and the acquired group;
- incurrence of unexpected, actual or contingent liabilities;
- a need to incur debt, which may reduce our cash available for operations and other uses due to increased debt service obligations; and
- lack of return on our investment, including as a result of increased competition for acquisition targets and higher purchase prices for such acquisitions.

The impact of any such proposed and potential future expansion projects, acquisitions or joint ventures on us cannot be predicted and any of the risks outlined above, should they materialize, could have a material adverse effect on our margins and results of operations and financial condition.

The successful implementation of our proposed new paper machine project (PM3) poses significant challenges.

Due to the much larger size, higher level of complexity and longer implementation timeframe of a paper machine project, compared to the establishment of a new corrugated board production site, the risks related to our new paper machine project (PM3) are proportionately higher and manifold. This includes significant risks related to the actual technical start-up of the paper machine as a whole, as each paper machine project involves a certain level of customization, which means that spare parts and/or replacement

parts for key components may not be readily available and that (sometimes significant) start-up delays are not uncommon. In addition, certain features of our paper machine project, in particular the proposed closed cycle waste water treatment system, represent “industry firsts”, which means that the technology and equipment we are proposing to install are not yet fully proven, at least not on the scale of our proposed paper machine project. Should we encounter any significant technical problems in connection with the start up of the paper machine itself and/or the proposed closed cycle water treatment system, this could lead to a significantly delayed start-up of the paper machine. This, in turn, could have severe follow-on consequences, such as (i) a potential loss of an expected aggregate total of up to €15 million in repayment grants in relation to Facility C of the Existing Senior Secured IKB Facilities, Facility A of the Existing Commerzbank Facilities and the Existing SaarLB Facility; (ii) the loss of approximately €22.0 million in reductions of the so-called EEG surcharge (*EEG Umlage*) with regard to 2021 under the German Renewable Energy Act (*Erneuerbare-Energien-Gesetz*, “**EEG**”) as well as (iii) the loss of production volume of containerboard and related supply to our corrugated board operations.

Once our new paper mill has commenced operation, among other risks, we will further face (i) the risk of having to procure the very large volumes of recycled paper required to operate our new paper machine at full capacity, (ii) the risk of potentially having to purchase additional CO₂ allowances as we do not yet know the number of free CO₂ allowances we will get allocated as well as (iii) the significant risk of a temporary overcapacity in the European containerboard market as a number of our competitors have also commenced or announced paper machine projects with a similar completion timetable. Should any of these (or other) risks in connection with the implementation of our new paper machine project materialize, this could have a material adverse effect on our margins and results of operations and financial condition.

In addition, a final approval under the German Emissions Act (BImSchG), which is required for the operation of the proposed new paper mill, remains pending. Based on our interactions with the relevant authorities, we currently expect to receive the relevant approval in July 2019. Failure to receive this final approval could cause us to significantly delay our paper machine project, abandon the currently proposed site for the project and/or incur significant write-offs in connection with the proposed project.

We are exposed to currency exchange rate fluctuations.

Given the growing geographic spread of our operations, we are increasingly exposed to currency exchange rate fluctuations. For example, the United Kingdom, the Czech Republic and Poland do not use the euro as their national currency. During the year ended December 31, 2018, 7%, 7% and 16% of our total sales derived from sales in British pounds, Czech koruna and Polish zloty, respectively. In addition, we currently finance several of our foreign subsidiaries, including subsidiaries outside the euro zone, through borrowings in euro.

To reduce (but not eliminate) our exposure to exchange rate fluctuations between the euro and the Polish zloty, Progroup Board sp. z o.o. entered into the 2015 Senior Secured PLN Facility on December 1, 2015 to pay back euro denominated intra Group loans. To finance the investment in our corrugated board production site (PW10) in Trzcínica, Poland, Progroup Board sp. z o.o. entered into the 2016 Senior Secured PLN Facility on May 31, 2016. As of March 31, 2019, PLN 58.9 million (carrying amount at March 31, 2019: €13.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on March 31, 2019) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 76.0 million (carrying amount at March 31, 2019: €17.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility. The adjusted figures do not reflect PLN 5.4 million and PLN 4.0 million, respectively, in scheduled repayments under the 2015 Senior Secured PLN Facility and the 2016 Senior Secured PLN Facility we will be required to make on June 30, 2019. For more details about the Existing Senior Secured PLN Facilities, including scheduled repayments on the Existing Senior Secured PLN Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured PLN Facilities*”.

To reduce (but not eliminate) our exposure to exchange rate fluctuations between the euro and the British pound, Progroup Board Ltd. entered into the Existing Senior Secured GBP Facility on December 21, 2017. As of March 31, 2019, we had drawn GBP3.0 million under the Existing Senior Secured GBP Facility (carrying amount at March 31, 2019: €3.495 million, calculated based on an exchange rate of €1.00 = GBP 0.8583, which was the exchange rate of the British pound against the euro reported by the European

Central Bank on March 31, 2019). The Existing Senior Secured GBP Facility was fully utilized as of the date of this offering memorandum. For more details about the Existing Senior Secured GBP Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured GBP Facility*”.

Prior to our refinancing in 2015, we were not permitted under our former financing arrangements to hedge for currency risks. As a result, fluctuations in the value of local currencies against the euro have had, and may have in the future, a significant effect on our operations and on our reported results in euro and the comparability of our performance between financial periods can be significantly affected by fluctuations in local currencies against the euro. We have since started to implement foreign currency risk management in order to monitor our foreign currency risk and to enable us to consider taking action if we decide to do so, but there is no assurance that any such foreign currency risk management will be effective. As a result, fluctuations in the value of these local currencies against the euro may have a significant adverse effect on our operations and on our reported results in euro.

The relative strength or weakness of the U.S. dollar is also important for the European containerboard industry, because exports from the European market influence the balance of supply and demand and the price development of containerboard in Europe. Movements in the U.S. dollar exchange rate may also have an effect on trading. A weak U.S. dollar over a sustained period has historically resulted in lower (U.S. dollar-denominated) exports by European containerboard manufacturers with a negative (for our business) effect on the supply demand balance and an immediate effect on the pricing of containerboard in Europe. In addition, a weak U.S. dollar over a sustained period has, in the past, also resulted in lower sales by other European manufacturers who ship products in corrugated packaging, resulting in lower European demand for corrugated packaging, and therefore for our containerboard and corrugated board. A weak U.S. dollar may also result in additional competition in the European market from U.S. manufacturers that have an incentive to sell more products in Europe, due to increased European demand for the relatively lower-priced U.S. goods over higher-priced European goods.

The success of our business relies on certain key personnel (in particular, our chief executive officer Jürgen Heindl), and our ability to attract and retain key personnel, other qualified management personnel and skilled workers.

The success of our business relies to a considerable extent on the efforts, abilities and reputation of our executive board and our senior management team, especially our chief executive officer, Jürgen Heindl. Mr. Heindl has been responsible to a significant extent for our historical growth and strategic development. The loss of Mr. Heindl or other key personnel could significantly disrupt our business and have a material adverse effect on our margins and results of operations and financial condition. Further, if we lost any of our key personnel, there can be no assurance that we will be able to successfully find a suitable replacement in a timely manner, or at all. We currently expect Jürgen Heindl to step down from his role as chief executive officer at the end of 2022, to be succeeded by his son, and our current chief development officer, Maximilian Heindl.

In addition, the success of our business depends on our ability to attract and retain qualified management personnel and skilled workers in the long-term. We compete with a large number of other companies when recruiting qualified employees. There is an increasing shortage of qualified personnel in the markets in which we operate, especially personnel with technical, IT or engineering skills. If we are unable to continue to attract and/or train qualified employees sufficiently and to retain those employees, this could have a material adverse effect on our business, results of operations and financial condition. See also “—*Our ability to successfully operate the CHP depends on our ability to attract and retain experienced personnel*”.

Failure to maintain good employee relations may affect our operations and the success of our business.

Future developments in relation to our business or otherwise could adversely affect relations with our employees and their works councils. Labor disputes, strikes or work stoppages could lead to a substantial interruption to our business operations or otherwise adversely affect the Group and have a material adverse effect on our operating results and financial condition.

We may be adversely affected by increasing costs in maintaining our required level of workforce.

During 2018, we had an average of 1,096 employees (excluding trainees) and personnel expenses constitute a significant proportion of our cost base. Accordingly, inflationary pressures, changes in applicable laws and regulations or other factors resulting in increased labor costs could have a material adverse effect on our margins and results of operations and financial condition.

We are subject to numerous environmental, health and safety laws and regulations, and the cost of compliance or the failure to comply with, and any liabilities under, current and future laws and regulations may negatively affect our business.

We are subject to a wide range of international, national, state and local environmental, health and safety laws and regulations in the jurisdictions where we operate, including those governing the discharge of pollutants into the air and water, the use, storage and disposal of hazardous substances and wastes and the clean-up of contaminated properties. We could incur significant costs, including fines, penalties, civil and criminal sanctions, investigation and clean-up costs, third-party claims for property damage or personal injury or enforcement actions, including regulatory or judicial orders enjoining or curtailing operations or requiring corrective measures, the installation of pollution control equipment or other mandated actions, as a result of violations of or liabilities under environmental, health and safety laws and regulations or otherwise.

These laws and regulations are complex, frequently change and have tended to become more stringent over time. There can be no assurance that the costs of complying with such laws and regulations, or future environmental, health and safety laws and regulations, will not increase. Such cost increases could have a negative impact on the results of our margins and results of operations and financial condition.

There can be no assurance that we will be at all times in compliance with applicable environmental and health and safety requirements, which may lead to the incurrence of material costs or liabilities in the future or impede our ability to obtain and maintain all licenses, consents or other permits necessary to operate our business. Similarly, there can be no assurance that we will not experience an environmental spill or accident or discover or otherwise become liable for environmental contamination in the future. We may incur significant expenditure in connection with the required remediation of past environmental conditions at both currently-owned and formerly-owned facilities. For example, the land on which we have constructed our newest corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom is a legacy industrial site with known asbestos contamination which required environmental remediation. There can be no assurance that the contractually agreed remediation measures that were undertaken by the seller of the land have been successful and sufficient and that those remediation efforts, together with relevant environmental insurance policies, will fully protect us from having to incur any future expenditures in connection with further required remediation.

There can be no assurance that environmental pressure groups and similar organizations will not mount campaigns against us which, were they to occur, could have an adverse effect on our reputation.

Failure to maintain good health and safety practices may have an adverse effect on our business.

Our employees carry out relatively difficult and specialized tasks, and a serious incident affecting the health and safety of any of our employees could disrupt our operations and have a negative impact on our reputation. We may also be subject to fines or litigation if a health and safety incident occurs. Furthermore, disruption of operations caused by a major incident could have a material adverse effect on our business, results of operations and financial condition.

Our licenses may be suspended, amended or terminated prior to the end of their terms or may not be renewed.

Our licenses and permits required to conduct our business operations, including for the operation of CHP, could be revoked, withdrawn or amended by the relevant authorities under certain circumstances. For example, a license or permit could be revoked, withdrawn or amended if there is a subsequent change of facts or a relevant regulation, such permit is found to be contrary to the public interest, or it is deemed necessary to prevent severe harm to the common good.

Moreover, private individuals and the public have the right to comment upon the process, raise objections to proposed permits and initiate court proceedings to intervene and prevent the granting of requested permits. In addition, environmental organizations, residents or other third parties may raise objections to our current or proposed activities or file suits challenging our operations and the granting or existence of permits and licenses to conduct our operations.

The permitting rules are complex and may change over time, making our ability to comply with the applicable requirements more difficult or even impossible, thereby precluding continuing or future operations. Regulatory authorities exercise considerable discretion in the timing and scope of permit

issuance. Requirements imposed by these authorities may be costly and time-consuming and may result in delays in the continuation of our operations.

If any of our licenses or permits is revoked, withdrawn or amended, or if we have difficulty renewing a license or permit, we may experience delays in our operations which could adversely impact our business, financial condition, results of operations and cash flows.

We are exposed to the particular risks related to our increasingly international operations.

Our operations have become increasingly international. In addition to our home market, Germany, we currently operate facilities in the Czech Republic, France, Italy, Poland and the United Kingdom. As a result, we are vulnerable to risks in these countries and to the particular risks inherent in international operations, including:

- increased difficulties in the collection of accounts receivable, including longer collection periods;
- inconsistent regulations and unexpected changes in legislation or regulatory requirements and increased difficulty and expense in hiring and dismissing employees; work stoppages, transport interruptions and difficulties in managing international operations;
- adverse tax consequences, including as a result of complex transfer pricing regulations; and
- adverse currency fluctuations or restrictions on the transfer of cash.

The occurrence of any of the foregoing could have a material adverse effect on our results of operations due to the related delays or increased costs in the production and delivery of products and services.

We are subject to antitrust and similar legislation in the jurisdictions in which we operate.

We are subject to a variety of antitrust and similar legislation in the jurisdictions in which we operate. In Germany as well as in some of our other markets, we have a market position that may make potential future acquisitions difficult and may limit our ability to expand by acquisition or merger, if we wished to do so.

In addition, we are subject to legislation in all the jurisdictions in which we operate relating to unfair competitive practices and similar behavior, both on an EU level and on a national level. There can be no assurance that we will not be subject to allegations of, or regulatory investigations or proceedings into, such practices or behavior. In the event that such allegations are made or investigations or proceedings are initiated (irrespective of merit), we may be required to devote significant management resources to our defense against such allegations. In the event that such allegations are proved, we may be subject to significant fines, damages awards and other expenses, any of which could have a material adverse effect on our business, results of operations and financial condition.

Our results may be adversely affected if we are unable to implement our strategy to optimize utilization of assets.

Our results of operations are materially influenced by the degree to which we are able to optimize the utilization of our assets in order to achieve the necessary production volumes to achieve our business plans. We cannot guarantee that we will be able to optimize the utilization of assets in accordance with our plans, or at all, due to, among other things, unforeseen disruptions which are beyond our control. For example, we continuously work to further optimize production of our paper machines PM1 and PM2. If we are not able to optimize the usage of our two paper mills and other production facilities, the expected return on our related investments may not be realized. Any other inability to optimize and sustain the capacity utilization of our production facilities or achieve cost efficiencies through improvements in production processes may have a material adverse effect on our margins and results of operations and financial condition.

Our business operations are capital intensive, and we may be required to make significant capital expenditures to maintain our competitive position.

The operation and expansion of our business requires substantial capital expenditures. In addition to our significant investment in PM2 in Eisenhüttenstadt, primarily between 2008 and 2010, we have ongoing capital expenditure requirements relating to, among other things, the modernization and maintenance of our existing production plants. Furthermore, we have incurred (and expect to continue to incur) significant

capital expenditures in connection with the launch and ramp-up of our corrugated board production sites in Trzcinica, Poland (PW10), Drizzona, Italy (PW11), and Ellesmere Port, United Kingdom (PW12), and the ongoing establishment of our proposed corrugated board sites in Eisfeld, Germany (PW13) and our proposed further corrugated board “mega-plant” (PW14) as described above. In the short-term to mid-term, we intend to continue to focus our investment activities on further expanding our corrugated board production capacity, and we have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany (with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020) and currently expect to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023, including a further proposed corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021). We currently expect to make total net investments (i.e. net of expected subsidies) of approximately €60 million and €70-75 million, respectively, for these two additional corrugated board production sites (PW13 and PW14). In addition, we have also begun to actively pursue the realization of a further paper machine project (PM3) in Sandersdorf-Brehna, Germany. We currently expect total net investment costs (i.e. net of expected subsidies) of approximately €465 million for just this paper machine project over a several year period, approximately €116.7 million of initial expenditures (e.g. for advance payments for the paper machine and certain preliminary work) we had already incurred as of the end of the first quarter of 2019. For further details on our proposed expansion projects and investment program, see *“Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Factors affecting our Results of Operations—Expansion Projects and Investment Program”*.

Our ability to expand our business and fund our ongoing operations depends on our ability to generate cash and access financing. In addition, our liquidity and capital requirements may increase if we decide to pursue further expansion projects or if we make future acquisitions. We may not generate sufficient cash flow or have access to sufficient funding to meet these requirements.

Further, we may require information technology enhancements in order to continue providing high-quality IT support for our production processes. Failure to implement such enhancements may result in reduced quality of processes and loss of orders and customers. If one or more of the aforementioned risks were to materialize, this could have a material adverse effect on our business, results of operations and financial condition.

Furthermore, even successful expansion (or acquisition) projects can have a negative impact on our profitability in the short-term. For example, our reduced profitability between 2009 and 2010 following the global financial and economic crisis coincided with the launch of production at our corrugated board production sites in Strykow, Poland (PW7) and Ellesmere Port, United Kingdom (PW8) and at our paper mill in Eisenhüttenstadt, Germany (PM2), which involved significant start-up and ramp-up costs. The related costs were largely expected and are normal in our industry, but their timing further exacerbated our financial condition. In addition, even in a positive market environment, it typically takes two to three years from the launch of a new corrugated board production site until the production site is fully utilized. For example, we launched our corrugated board production site in Strykow, Poland (PW7) in 2009, but the site only completed its ramp-up phase in 2012 and therefore, did not operate at a three-shift capacity for an entire year until 2013. Our corrugated board production site (PW9) in Plössberg, Germany commenced production in October 2015 and completed its ramp-up phase in 2017, while our corrugated board production site (PW10) in Trzcinica, Poland completed a very fast and successful ramp-up and will likely already operate at a full, three-shift capacity for an entire year for the first time in 2018. Our corrugated board production site (PW11) in Drizzona, Italy commenced production in March 2018 and we expect the ramp up of production to continue through the end of 2020. We expect our newest corrugated board “mega-plant” (PW12) in Ellesmere Port, United Kingdom (which commenced production in January 2019), our proposed new corrugated board production site (PW13) in Eisfeld, Germany and our proposed further corrugated board “mega-plant” (PW14) described above to also undergo ramp-up phases of different durations with a corresponding impact on our result of operations. The start-up and ramp-up costs and short-term to mid-term impact on our profitability of our latest paper machine project (PM3) will be proportionately higher, due to the much larger size, higher level of complexity and longer implementation timeframe of such a project, compared to the establishment of a new corrugated board production site. For our paper mill in Eisenhüttenstadt (PM2), for example, we executed some of the definitive agreements with our main project partners (including the related financing arrangements) as early as the summer of 2008, before starting initial ground works later that year. In addition, even though our paper mill in Eisenhüttenstadt (PM2) commenced operations in March 2010, it only completed its initial ramp-up phase in 2013. Since then, we have been continuing our efforts to further optimize our

operations at our mill in Eisenhüttenstadt, which involves not only the optimization of the performance of PM2, but also the optimization of connected processes, including the operation of the CHP we acquired from EnBW effective as of midnight on December 31, 2015. See also “—*The successful implementation of our proposed new paper machine project (PM3) poses significant challenges.*”

The availability of, or any significant increase in, the cost of transportation represents a significant risk for our business.

Transportation plays an important part in our supply chain as we transport a majority of our products, mainly by truck and to a lesser extent by rail or ship, to our customers. Deliveries are generally made as full truck loads. In addition, most of the raw materials need to be transported to our production facilities and we also transport large rolls of containerboard from our two paper mills in Burg and Eisenhüttenstadt (both Germany) to our ten other corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom. We meet our freight and logistics requirements mainly through the use of external logistics companies and, to a much lesser extent, our own fleet of currently 59 trucks through which we carry out approximately 6.8% of our total transportation requirements. Due to the relatively large size and weight of our products compared to value, freight and logistics expenses play an important role in our business, and fluctuations in freight prices can have a significant impact on our profitability. In 2018, our freight expenses, which include freight for deliveries from our production plants or other stocks to customers as well as containerboard shipments from our two mills to our various corrugated board plants, amounted to a total of 67.0 million, or 6.9%, of our sales.

Any material disruption in or lack of availability of transportation or significant increases in fuel or energy prices, road tolls or demand driven market prices resulting in higher transportation costs, may have a material adverse effect on our margins and results of operations and financial condition. In addition, increased costs relating to vehicle emissions control requirements that have been or may be imposed in the future, particularly due to climate change related legislation, may also lead to such effects on our margins and results of operations and financial condition.

We depend on the uninterrupted operations of our information and communication technology.

The operation of our production plants and our sales and service activities depend on the uninterrupted operation of complex and sophisticated computer, telecommunication and data processing systems. Between each step along our internal value chain and our production processes, we must coordinate and monitor complex logistics processes to ensure the efficient flow of materials and products. In addition, in 2018, approximately 69% of purchase orders for corrugated board from our Progroup Board customers were received electronically, and all material core processes, which must be coordinated to ensure the smooth and efficient operation of our production processes, are controlled by our proprietary core ERP system, WEPAFORM. WEPAFORM implements our internal know-how in the form of best practices and rules of conduct. The functionality of WEPAFORM covers all our core processes, including order processing, raw material planning, production planning, production control as well as warehousing, shipment and invoicing. See also “*Business—Information Technology and Process Management*”.

Computer and data processing systems and related information technology infrastructure (data center, hardware and wide and local area networks) are generally exposed to the risk of disturbances, damage, electricity failures, computer viruses, fire, other disasters, hacker attacks, unauthorized or improper access or abuse by employees and similar events. In addition, we rely on a small number of key employees within our IT department who are familiar with WEPAFORM and have been involved in its development. Disruptions to operations or interruptions in operations involving key software applications (in particular, WEPAFORM) and/or our IT hardware have occurred, in individual cases, in the past and may occur in the future. Although administration and production networks are separated, such disruptions or interruptions could have a material adverse effect on our ability to maintain our core processes, could lead to production downtime and result in significant lost sales. Some of the software products we use are hosted by a third party off site, in which case we depend on the hosting company's infrastructure, and any interruption, disruption or security breaches at the hosting company's data center may have an adverse effect on our operations. If one or more of these risks were to materialize, this could have a material adverse effect on our business, results of operations and financial condition.

We are subject to risks from legal proceedings.

We are involved in litigation in the ordinary course of business and could become involved in additional legal and arbitration disputes in the future, which may involve substantial claims for damages or other payments. The outcome of pending or potential future proceedings is difficult to predict with any certainty. In the event of a negative outcome of any material legal or arbitration proceeding, whether based on a judgment or a settlement agreement, we could be obligated to make substantial payments. In addition, the costs related to litigation and arbitration proceedings may be significant. The realization of any of these risks could have a material adverse effect on our business, results of operations and financial condition.

Our insurance coverage may not be adequate to cover all the risks we may face and if we were no longer covered by our existing insurance, it may be difficult to obtain replacement insurance on acceptable terms or at all.

Although we maintain insurance policies, including fire, explosion, radiation, electrical damage, machinery breakdown, fuel or power shortages, third party liability insurance, transport insurance, computer insurance and directors' and officers' insurance, not all risks are insured or insurable (and may have significant deductibles on policies). Accordingly, our insurance policies do not provide coverage for all losses related to our business, and the occurrence of losses, liabilities or damage not covered by such insurance policies could have a material adverse effect on our results of operations and financial condition. Due to variable insurance market conditions, there can be no assurance that the insurance that we carry will continue to be available, will be available at economically acceptable premiums or will be adequate to cover any resulting liability, and we may be required to enforce insurance coverage or pay high deductibles. In some cases, coverage is not available or is considered too expensive relative to the perceived risk. If we experience a loss in the future, the proceeds of the applicable insurance policies, if any, may not be adequate to cover replacement costs, lost sales, increased expenses and/or liabilities to third parties. This could have a material adverse effect on our results of operations and financial condition.

Our risk management and internal controls may not prevent or detect violations of law.

Our existing compliance processes and controls may not be sufficient to prevent or detect inadequate practices, fraud and violations of law by our intermediaries and employees. Due to our business operations in multiple countries in Europe, we are subject to a number of laws and regulations in various countries. These include, among others, regulations concerning competition and antitrust law, international trade and customs, licensing and permits, commercial intellectual property and its enforcement, warranty and product liability, environmental, building and zoning law, energy law, hazardous substances and chemicals law, labor and work protection law, tax law and regulations related to purchasing and acquisitions.

In the event that any intermediaries, consultants, sales agents or employees with whom we cooperate either receive or grant inappropriate benefits or generally use corrupt, fraudulent or other unfair business practices, we could be confronted with legal sanctions, penalties and loss of orders and harm to our reputation. Especially given our increasingly international profile, the size and the extent of our cooperation with intermediaries, consultants, sales agents and employees, our internal controls and procedures, policies and our risk management may not be adequate to identify or prevent such practices, which could have a material adverse effect on our results of operations and financial condition.

We may have to repay investment grants and subsidies, or previously awarded investment grants may not be disbursed in part or at all.

A part of our investment requirements for developing and expanding our production capacity is covered by public aid, such as investment grants, subsidies, loans at favorable conditions or tax reductions or exemptions, both in Germany and abroad. The decisions on granting public aid received by us contain various conditions such as regarding the use of funds for certain energy efficiency measures, the creation of jobs, the total investment amount or the duration of our investment. If these conditions are not fulfilled during the commitment period, which generally exceeds the specified investment period, this could result in a repayment claim by the relevant authorities for the public aid received by us. During the commitment period, such conditions may no longer be satisfied and we could be subsequently exposed to considerable repayment and interest claims. This could have a material and adverse effect on our business, financial condition and results of operations.

Pending and future tax audits within our Group and changes in fiscal regulations could lead to additional tax liabilities.

We are subject to routine tax audits by local tax authorities. Tax audits in Germany for the Group for corporate income tax (*Körperschaftsteuer*), trade tax (*Gewerbesteuer*) and VAT (*Umsatzsteuer*) relating to the years 2016 and 2017 are currently ongoing. There can be no guarantee that these tax audits will not result in any materially higher tax assessments.

Tax audits for later periods not yet subject to a tax audit or tax audits in other countries may lead to higher tax assessments in the future. For example, we operate a number of tax groups (*Organschaften*) in Germany and we are therefore exposed to the risk of a challenge of the existence and due operation of tax groups in the course of future tax audits. A non-recognition of our tax groups could lead to additional tax liabilities. The same could apply if we do not comply with our tax reporting obligations.

Any additional tax payments could have a material adverse effect on our margins and results of operations and financial condition. In addition, changes in fiscal regulations or the interpretation of tax laws by the courts or the tax authorities may also have a material adverse effect on our business.

The international scope of our operations and our corporate and financing structure may expose us to potentially adverse tax consequences.

We are subject to taxation in, and to the tax laws and regulations of, multiple jurisdictions as a result of the international scope of our operations and our corporate and financing structure. We are also subject to intercompany pricing laws, including those relating to the flow of funds among our companies pursuant to, for example, purchase agreements or other arrangements. Adverse developments in these laws or regulations, or any change in position by the relevant authority regarding the application, administration or interpretation of these laws or regulations in any applicable jurisdiction, could adversely affect our business, financial condition and results of operations.

In addition, the tax authorities in any applicable jurisdiction may disagree with the positions we have taken or intend to take regarding the tax treatment or characterization of any of our transactions, including the tax treatment or characterization of our indebtedness, including the Additional Notes and the Existing Notes, payments or other distributions to our shareholders, existing and future intercompany loans and guarantees or the deduction of interest expenses. We could also fail, whether inadvertently or through reasons beyond our control, to comply with tax laws and regulations relating to the tax treatment of various of our financing arrangements, which could result in unfavorable tax treatment for such arrangements. If any applicable tax authorities were to successfully challenge the tax treatment or characterization of any of our intercompany loans or transactions, it could result in the disallowance of deductions, a limitation on our ability to deduct interest expenses, the imposition of withholding taxes, the application of significant penalties and accrued interest on intercompany loans or internal deemed transfers, the application of significant penalties and accrued interest or other consequences that could have a material adverse effect on our business, financial condition and results of operations.

Due to restrictions of the deduction of interest expenses or forfeiture of interest carry forwards under German tax laws, we may be unable to fully deduct interest expenses on our financial liabilities.

Interest payments on the Additional Notes, the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities and on our other debt may not be fully deductible for tax purposes, which could adversely affect our financial results. Subject to certain prerequisites, the German interest barrier rules (*Zinsschranke*) impose certain restrictions on the deductibility of interest for tax purposes. Since 2008, the German interest barrier rules in general have disallowed the deduction of net interest expenses exceeding 30% of tax adjusted EBITDA. For purposes of the interest barrier rules, all businesses belonging to the same tax group (*Organschaft*) for corporate income and trade tax purposes, *i.e.*, the Issuer and certain Guarantors, are treated as one single business. Such consolidation is, *inter alia*, relevant for the calculation of the tax adjusted EBITDA.

There are certain exemptions from the restrictions of the German interest barrier rules allowing for a tax deduction of the entire annual interest expenses, which, however, may not be available to the Issuer. To the extent our net interest expenses exceed 30% of our tax adjusted EBITDA in any given year, we may therefore not be able to deduct the excess in our net interest expense in calculating our taxable earnings for the relevant year. This may have an adverse effect on our liquidity and financial condition and on our ability to meet our obligations under the Additional Notes and the Guarantees.

Any non-deductible amount of interest expenses exceeding the threshold of 30% is carried forward and may, subject to the interest barrier rules, be deductible in future fiscal years. In the past, our interest expenses were not entirely deductible. Accordingly, we used to have an interest carry forward (*Zinsvortrag*) from previous years. In the meantime all interest carry forwards have been used until December 31, 2018. Any future interest carry forwards could be forfeited in part or in full in connection with certain measures, such as a change of our ownership structure.

If the European Monetary Union ceases to exist or one or more countries leave the European Monetary Union, our margins and results of operations and financial condition may be materially adversely affected.

In recent years, economic events affecting the European economies have raised a number of questions regarding the overall stability of the European Monetary Union. Despite measures taken by countries in the European Monetary Union and the European Central Bank to alleviate credit risk, concerns persist with respect to the ability of certain European Monetary Union countries to meet future financial obligations, the overall stability of the euro and the suitability of the euro as a single currency given the diverse economic and political circumstances in individual European Monetary Union member states. The economic outlook is adversely affected by the risk that one or more European Monetary Union countries could come under increasing pressure to leave the European Monetary Union, or that the euro could cease to be the single currency of the European Monetary Union. The legal and contractual consequences of such a development for the business of the Group and for holders of the Notes, would be determined by applicable laws in effect at such time. Any of these developments, or a perception that any of these developments may be likely to occur, could have a material adverse effect on the economic development of the affected countries or lead to economic recession or depression that could jeopardize the stability of financial markets or the overall financial and monetary system. This, in turn, may have a material adverse effect on our margins and results of operations and financial condition.

The result of the United Kingdom's withdrawal from the European Union may have a negative effect on our business.

The United Kingdom's initiation of the process to withdraw from the European Union pursuant to Article 50 of the Treaty on European Union following the national referendum in June 2016 ("**Brexit**"), has created significant uncertainty about the future relationship between the United Kingdom, one of our current markets, and the EU and its remaining member states, which may constitute an additional risk for the financial markets and the European economy. Further, as the negotiation process for the exit is still ongoing, there is a great amount of uncertainty on the specific terms to be agreed between the negotiating parties. The United Kingdom's withdrawal from the European Union will take effect on the effective date of the withdrawal agreement, or, unless a further extension is granted, on October 31, 2019 if no agreement is reached by then. The effects of Brexit are uncertain, and Brexit has and may continue to contribute to volatility in the prices of securities of companies located in Europe. An extension of the October 31, 2019 deadline, a second referendum or other developments may result in additional volatility in the financial markets and the European economy. The overall impact of Brexit, especially without a withdrawal agreement, may create further global economic uncertainty. A downturn in the European economy could have adverse effects on our business in the markets in which we operate. In addition, with the establishment of our new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom, we have substantially increased our presence in the United Kingdom (a market in which we have historically been able to achieve above average EBITDA margins), which has increased our exposure to any negative outcomes of Brexit. In 2018 and the first three months of 2019, sales in the United Kingdom accounted for 7.5% and 7.0%, respectively, of our sales by volume. Possible negative outcomes resulting from Brexit include: significantly disrupted trade between the United Kingdom and the EU; political and economic instability in other countries of the EU, which covers the majority of our markets; and instability in the global financial and foreign exchange markets, including volatility in the value of the euro and the pound sterling. The depreciation of the pound sterling against the euro has caused, and may continue to cause, an increase in the price of goods in the United Kingdom that are sourced from the EU. Therefore, Brexit might also affect our ability to maintain the current level of sales, as expressed in euros, in the United Kingdom. Given the lack of comparable precedent, it is unclear what financial, trade and legal implications Brexit will have and whether, and to what extent, our business might be affected. Therefore, Brexit could have a material adverse effect on our business, financial condition and results of operations.

The interests of our controlling shareholder may be inconsistent with our interests and/or the interests of holders of the Notes.

Jürgen Heindl, our chief executive officer and founding shareholder, controls JH-Holding, our controlling shareholder. The interests of our controlling shareholder, in certain circumstances, may conflict with our interests or with your interests as holders of the Notes. Mr. Heindl has, directly or indirectly, the power, among other things, to affect our legal and capital structure and our day-to-day operations, the payment of dividends, asset sales and other significant corporate transactions as well as the ability to elect and change our management and to approve any other changes to our operations. The interests of our controlling shareholder could conflict with your interests as holders of the Notes, particularly if we encounter financial difficulties or are unable to pay our debts when due, including under the Notes. Mr. Heindl and our controlling shareholder could also have an interest in pursuing acquisitions, joint ventures, divestitures, financings, dividend distributions or other transactions that, in their judgment, could enhance their investments although such transactions might involve risks to the holders of the Notes.

The information available to market analysts varies in its degree of comparability.

This offering memorandum contains information regarding market positions, market shares, growth rates and other industry data pertaining to our business drawn from reports and other materials compiled by independent professional organizations and analysts. This includes reports prepared by RISI and Vision Hunters. The analysts compiling these reports base their estimates and conclusions on a variety of sources, some of which may be more comparable than others. These sources may include:

- official information published by government agencies,
- reports published by exchange listed companies with public reporting obligations,
- information offered voluntarily by privately held companies, and
- analysts' own estimates based on information obtained in conversations with competitors, suppliers, customers and other market participants.

Although our industry uses these reports as a standard source of market data, we cannot determine the level of reliability and comparability of the data in the reports. The analysts' estimates and conclusions can vary, and have in the past varied, materially from the true figures and as a result their reports can under or overstate market size, market share, growth rates and other important industry data. Accordingly, you should use caution in using these estimates and any information regarding market position or shares contained in this offering memorandum and you should not place undue reliance on such estimates or information.

We may not be successful in operating the CHP ourselves in the long-run.

Under the former contracting arrangement with EnBW, we were already closely involved in the operation of the CHP and already bore a significant portion of the economic risks associated with the operation of the CHP. However, we did not have any experience operating the CHP ourselves when we started to do so in 2016. Upon completion of the CHP Acquisition, effective as of December 31, 2015, we were directly responsible for a number of aspects of the operation of the CHP that were previously performed by EnBW, and we are now bearing certain additional risks associated with the ownership and operation of the CHP that were previously being borne by EnBW. In particular, we became directly responsible for, and will bear all risks related to, the ownership and day-to-day operation of the CHP, which includes the risk of any further unexpected repair and maintenance costs, the risk of any further significant unscheduled or longer than scheduled shutdowns of the CHP, the operational risks associated with the disposal of the ash generated by the CHP (i.e., that we are unable to procure the proper disposal of the ash and may therefore be forced to shut down the CHP) as well as certain other operational and regulatory risks. See also “*We could be exposed to risks related to the CHP which have not been detected during the due diligence process preceding the CHP Acquisition*” and “*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Results of Operations—The CHP Acquisition*”.

Our ability to successfully operate the CHP depends on our ability to attract and retain experienced personnel.

Our ability to successfully operate the CHP depends, in part, on certain key personnel and on our ability to attract and retain a highly skilled workforce for the management and operation of the CHP over the long term. Such employees with appropriate knowledge and experience are scarce, and the employment market for such personnel is very competitive. As a result, we might not be able to retain key CHP employees with specialized knowledge or to attract and retain a highly-skilled workforce for the CHP. Any of these factors could have a material adverse effect on our business, results of operations and financial condition and our ability to fulfill our obligations under the Notes.

The CHP employees are represented by a works council and wage discussions between us and representatives of the CHP employees may result in increased personnel expenses in the future.

Other than our other employees in Germany, the CHP employees are represented by a works council (*Betriebsrat*). Future wage negotiations may result in higher personnel expenses for the operation of the CHP compared to the historical personnel expenses for the CHP employees.

We could be exposed to risks related to the CHP which have not been detected during the due diligence process preceding the CHP Acquisition.

The operation of the CHP may be subject to risks or problems that we may not be aware of, which may not have been detected or which have not been disclosed to us in the due diligence process or derived from the financial information of Progroup Power 1 GmbH and that may only emerge over time as we continue to operate the CHP ourselves. The CHP purchase agreement provides us with limited protection against the existence of such problems or the materialization of any such risks. The existence of any such risks or problems could lead to significant additional costs in operating the CHP, require us to incur significant costs for repairs or to make significant additional investments into the CHP in an attempt to remedy such risks or problems. For example, in connection with a scheduled maintenance shutdown of the CHP in the third quarter of 2016, we discovered certain technical faults within the CHP that we were not previously aware of. Because of our long-term economic interest in the efficient and uninterrupted (except for necessary maintenance shutdowns we schedule on a regular basis) operation of the CHP, we decided to significantly extend the originally scheduled maintenance shutdown period to allow us to make certain repairs and replace certain faulty components. This decision led to a significantly longer than scheduled maintenance shutdown of the CHP in the third and fourth quarters of 2016 and caused us to incur €16.0 million in “items of exceptional size or incidence”, including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales in 2016. We may learn additional information about the CHP that adversely affects us in the future, such as unknown or contingent liabilities, technical problems and issues relating to compliance with applicable laws. Any such liabilities or problems, individually or in the aggregate, could prevent us from realizing the expected benefits from the CHP Acquisition and could have a material adverse effect on our business, financial condition and results of operations.

Our ability to supply electricity to the public power grid will be dependent upon transmission and distribution systems and our reliance on third parties.

The sale and supply of electricity produced by the CHP to the public grid is dependent upon the infrastructure of the local power grid systems. We have no control over the operation of these power grid systems and we must rely on independent third-party power grid system operators. Different companies operate the transmission grids and the distribution grids in Germany. The transmission grid in the region where the CHP is located is operated by E.DIS AG and there are a number of different operators of distribution grids.

Any failure of such power grid systems or reduction of available capacity, including as a result of grid congestion, natural disasters, insufficient maintenance or inadequate development, could prevent us from selling and supplying electricity from the CHP. In Germany, grid congestion has recently caused operational issues for certain power generation plants, as the increase of co-generation and renewable energy in Germany that has a priority feed-in right to German power distribution networks has led to a reduction of available grid capacity for conventional power plants. In addition, as these power grid systems are operated by independent third parties who will not be our contractual partners, we will not carry insurance in this regard which would compensate us in the event of an operational failure. Additionally, under the German Energy Industry Act (*Energiewirtschaftsgesetz—EnWG*), network operators are responsible for the security and reliability of the power supply system and required to balance differences between generation and consumption. Therefore, if the safety or reliability of the transmission system is endangered, particularly in the case of grid bottlenecks, network operators are required to take remedial grid-related or market-related action, including changes to current electricity feed-in, transit and output. In doing so, under the EnWG and the German Renewable Energies Act (*Erneuerbare Energien Gesetz—EEG*), network operators may choose to disconnect power plants from the grid temporarily to reduce or prevent congestion. In any such case, conventional power plants would be the first to be disconnected, followed by co-generation plants and renewable power plants. We would not be entitled to compensation by the network operator for the losses incurred as a consequence of such measures. Due to the nuclear power phase-out and as renewable power generation and cogeneration increases rapidly in Germany and

the capacity of affected transmission and distribution grids is often not expanded sufficiently to accommodate this increase, there is an increasing risk of grid congestion and subsequent regulation of feed-in power capacity of conventional power plants during certain hours.

Any failure of the power grids or a disconnection of the CHP from the power grid, e.g., due to congestion and respective measures by the network operator, could negatively impact our electricity sales, and could have a material adverse effect on our business, financial condition, results of operations and cash flows.

As a result of the CHP Acquisition, we are directly subject to a wide range of laws and regulations specifically governing the German energy sector and the disposal of waste, which are subject to constant change.

As a result of the CHP Acquisition, we are directly subject to a wide range of laws and regulations specifically governing the German energy sector and the disposal of waste. See “*Business—Regulatory Environment—Regulation governing the Operation of the CHP*”.

The operating costs and results of operations of Progroup Power 1 GmbH and the CHP will be significantly impacted by the relevant regulatory framework for the electricity sector both on the European and the national level. In the past years, this regulatory framework has been subject to substantial change and it will continue to be subject to change in the future. Such change is not only due to legislative reforms, but is also prompted by administrative and judicial decisions. See also “—*Our energy costs, in particular in Germany, are dependent on the regulatory framework for the electricity sector, which is subject to constant change and, in addition, we may face material cost increases if we lose certain financial privileges which we benefit from in Germany with regard to the Renewable Energies Act (Erneuerbare Energien Gesetz, “EEG”) surcharge and network access fees and other fees*”.

Any such changes, in particular any loss or significant reduction of certain financial privileges we currently enjoy under the German Renewable Energies Act or the German Ordinance on Electricity Network Access Fees, could have a material adverse effect on our business, financial condition, results of operations and cash flows. As another example, the fluidized bed boiler (*Wirbelschichtkessel*) of the CHP for the thermal utilization of refuse-derived fuels currently benefits from an exemption under the CO₂ emissions trading scheme under the German Greenhouse Gas Emission Trading Act (*Treibhausgas-Emissionshandelsgesetz, “TEHG”*). A partial or outright loss of this exemption, as a result of either the CHP Acquisition or legal changes in the future, would result in significant additional administrative expenses as well as costs for purchasing CO₂ emission certificates. Any further tightening of general emission limits under relevant EU or German laws and regulations may require us to incur significant capital expenditure and ensure continued compliance by the CHP with all relevant laws and regulations. Since the CHP primarily uses refuse-derived fuels (including processed household and commercial waste), the operation of the CHP is particularly tightly regulated and is subject to a high level of regulatory scrutiny. Any breach of emissions limits under applicable laws and regulations, for example, due to equipment malfunction or a failure of the procedures for screening the waste before it is being incinerated, may force us to temporarily shut down the CHP or cause the relevant regulators to impose administrative sanctions and/or modify the operating permits for the CHP, which could result in significant costs.

In addition, the reduction or elimination of certain energy-related tax credits and exemptions or other changes in tax laws, in particular under the German Electricity Tax Act (*Stromsteuergesetz—StromStG*) and the German Energy Tax Act (*Energiesteuergesetz—Energie StG*), could have a material adverse effect on our business, financial condition, results of operations and cash flows. Finally, we may be adversely affected by any regulatory changes that may favor recycling over the thermal utilization of the refuse-derived fuels used in the operation of the CHP. For example, certain counties (*Landkreise*) in which one of our suppliers of refuse-derived fuels operates have recently adopted a new scheme for the collection of certain recyclables and organic waste. As a result of this change, other regulatory changes or similar developments in other regions, the amount and quality of household waste our supplier will be able to collect will likely decrease which will make it more difficult for our supplier to supply us with the agreed amount of refuse-derived fuels under the supply agreement, it may become more difficult to obtain the required quality and/or quantities of refuse-derived fuels to ensure the operation of the CHP in the future and/or the waste disposal fees we are able to charge for the thermal utilization of the refuse-derived fuels may decrease, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Furthermore, we are subject to various compliance, reporting and audit requirements under applicable laws and regulations, which require us to incur additional costs, including for the services of external

advisers. Under the German Energy Services Act (EDLG), for example, certain larger companies are required to carry out an energy audit, unless they have implemented an energy management system (EnMS). Since the CHP has implemented an EnMS, it is currently exempt from the energy audit requirement. However, the requirements of the EDLG also apply to current members of the Group and the Issuer as well as certain of its subsidiaries will still be required to carry out an energy audit under the EDLG. Failure to comply with these and other requirements and any relevant laws or regulations could also expose us to fines. See “Business—Regulatory Environment—Regulation governing the Operation of the CHP—Energy Services Act (EDLG)”.

RISKS RELATED TO OUR STRUCTURE AND FINANCIAL POSITION

Our debt agreements contain customary financial and restrictive covenants that limit our operating flexibility.

The Conditions of Issue, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and the New Senior Secured Facilities contain, or will contain, covenants significantly restricting our ability to, among other things:

- incur or guarantee additional indebtedness and issue certain preferred stock,
- create or incur liens,
- prepay or redeem subordinated debt or equity,
- make certain restricted payments and certain investments or sell or transfer certain assets,
- engage in certain transactions with affiliates or subsidiaries,
- create encumbrances or restrictions on the payment of dividends or other distributions, loans or advances to, and on the disposal, transfer or lease of assets by subsidiaries,
- sell, lease or transfer certain assets, including capital stock of subsidiaries,
- consolidate or merge with other entities, and
- impair the security interest for the benefit of the holders of the Additional Notes and the Existing Notes, respectively.

In addition, the Super Senior Revolving Credit Facility contains a financial covenant as described under “Description of Certain Financing Arrangements—Super Senior Revolving Credit Facility”.

Any future debt agreements that we enter into may have covenants that are even more restrictive. The requirement that we comply with these and any future provisions may materially adversely affect our ability to react to changes in market conditions, take advantage of business opportunities we believe to be desirable, obtain future financing, fund needed capital expenditures, or withstand a continuing or future downturn in our business.

If we are unable to comply with the financial and restrictive covenants included in the Conditions of Issue, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the New Senior Secured Facilities or any future debt agreements, there could be a default under such agreements, which could result in an acceleration of repayment.

As described in the preceding risk factor, the Conditions of Issue, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and the New Senior Secured Facilities contain, and any future debt agreements we enter into may contain, certain financial and restrictive covenants. Our ability to comply with these covenants, including meeting financial ratios and tests, depends on a number of factors, some of which may be beyond our control, such as a deterioration of the industry and markets in which we operate or a deviation from the assumptions contained in our business plan. As a result, we may be unable to comply with our financial and restrictive covenants, and any failure may materially adversely affect our margins and results of operations and financial condition.

The breach of a financial or other covenant or our failure to meet any of our obligations under any of the agreements governing our debt may result in a default under such agreements, which in turn could result in a number of adverse consequences including, prohibiting us from drawing additional funds under credit facilities, significant increases in interest rates and other financing costs, the acceleration of all outstanding amounts under such agreements requiring us to immediately repay the related debt in whole or in part,

and/or the commencement of foreclosure or other enforcement actions against any of our assets securing such debt. In addition, any default may expose us to requests by our suppliers for advance payments for deliveries and a reduction or cancellation by credit insurers of their commitments. Defaults may also trigger cross-default and cross-acceleration clauses contained in our other debt agreements, including the Conditions of Issue, and our liquid funds and short-term cash flow may be insufficient to service any of the debts in the circumstances described above. Accordingly, any failure by us to service our debts may have a materially adverse effect on our ability to satisfy our obligations, including under the Additional Notes and the Guarantees.

Our substantial leverage may make it difficult for us to operate our business.

As we execute our various ongoing and proposed expansion projects and utilize the available facilities under our various financing arrangements, including under Facility C of the Existing Senior Secured IKB Facilities, Existing Senior Secured SaarLB Facility, Facility A of the Senior Secured Commerzbank Facilities, the Senior Secured HSBC Facility and the New Senior Secured Facilities, we expect our indebtedness to increase significantly over the next few years, and we have, and expect to continue to have, increasingly significant debt service obligations. See “*Description of Certain Financing Arrangements*”, “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” and “*Summary Consolidated Financial and Other Information*”. We further have the ability to borrow an additional €50 million under our Super Senior Revolving Credit Facility. As of March 31, 2019, after giving *pro forma* effect to the Offering and the redemption of the Floating Rate Notes as described under “*Use of Proceeds*”, we would have had *pro forma* senior secured net debt of €569.0 million and a *pro forma* senior secured net debt to adjusted EBITDA ratio of 2.1x.

The expected increase in our leverage could have important consequences to the Holders, including:

- making it more difficult for us to satisfy our obligations with respect to the Additional Notes and our other debt and liabilities;
- increasing our vulnerability to, and reducing our flexibility to respond to, general adverse economic and industry conditions;
- requiring the dedication of a substantial portion of our cash flow from operations to the payment of principal of, and interest on, our indebtedness, thereby reducing the availability of such cash flow to fund working capital, capital expenditures, acquisitions, joint ventures, product research and development, or other general corporate purposes;
- restricting us from pursuing acquisitions or exploiting business opportunities;
- limiting our flexibility in planning for, or reacting to, changes in our business, the competitive environment and the industry in which we operate;
- negatively impacting credit terms with our suppliers and other creditors;
- exposing us to increases in interest rates with respect to our floating rate debt instruments, such as the Super Senior Revolving Credit Facility, the Existing Senior Secured GBP Facility, the Existing Senior Secured HSBC Facility and the New Senior Secured Erste Bank Facility;
- placing us at a competitive disadvantage compared to our competitors that are not as highly leveraged; and
- limiting our ability to obtain additional financing to fund future operations, capital expenditures, business opportunities, acquisitions and other general corporate purposes and increasing the cost of any future borrowings.

Any of these or other consequences or events could have a material adverse effect on our margins and results of operations and financial condition, which in turn, could have a material adverse effect on our ability to satisfy our obligations, including under the Additional Notes and the Guarantees.

Furthermore, we may incur substantial additional indebtedness in the future. Although our Super Senior Revolving Credit Facility and the conditions of issue for the Existing Notes contain, and Conditions of Issue will contain, restrictions on the incurrence of additional indebtedness, the restrictions are subject to a number of significant qualifications and exceptions and, under certain circumstances, the amount of indebtedness that could be incurred in compliance with these restrictions could be substantial. In addition, under the “*Limitation on Restricted Payments*” covenant in each of the Conditions of Issue and the Super

Senior Revolving Credit Facility we are permitted to make significant dividend payments and other distributions, which could also increase our leverage. To the extent we become even more leveraged than anticipated or incur additional obligations, the risks described above will intensify.

Borrowings under our Super Senior Revolving Credit Facility, the Existing Senior Secured GBP Facility, the Existing Senior Secured HSBC Facility and the New Senior Secured Erste Bank Facility will bear interest at floating rates that could rise significantly, increasing our interest cost and debt and reducing our cash flow.

A substantial part of our indebtedness, including our borrowings under the Existing Senior GBP Facility and potential future borrowings under the Super Senior Revolving Credit Facility, the Existing Senior Secured HSBC Facility and the New Senior Secured Erste Bank Facility, will be at variable rates of interest, which could rise significantly in the future. Although we may enter into and maintain certain hedging arrangements designed to fix a portion of these rates, there can be no assurances that hedging will continue to be available on commercially reasonable terms. Hedging itself carries certain risks including that we may need to pay a significant amount (including costs) to terminate any hedging arrangements. If interest rates rise in the future, our interest expense associated with any variable rate obligations that are not hedged would increase, even though the amounts borrowed would remain the same, reducing cash flow available to fund future operations, capital expenditures, business opportunities, acquisitions and other general corporate purposes, including satisfying our debt service obligations, including under the Additional Notes and the Guarantees. Please also see “*Management’s Discussion and Analysis of Financial Condition and Results of Operations—Quantitative and Qualitative Disclosures about Market Risk—Interest rate risk*”.

Changes in, or uncertainty relating to, the EURIBOR, LIBOR, WIBOR, PRIBOR or BUBOR calculation process may adversely affect the interest we pay on our Super Senior Revolving Credit Facility, our Existing Senior Secured GBP Facility, our Existing Senior Secured HSBC Facility and our New Senior Secured Erste Bank Facility.

The Super Senior Revolving Credit Facility will bear interest at interest rates based on EURIBOR, LIBOR, WIBOR, PRIBOR or BUBOR, as applicable, the Existing Senior Secured GBP Facility bear interest at interest rates based on LIBOR and the Existing Senior Secured HSBC Facility and the New Senior Secured Erste Bank Facility will bear interest rates based on EURIBOR.

Following allegations of manipulation of LIBOR, regulators and law enforcement agencies from a number of governments and the European Union have been conducting investigations into whether the banks that contribute data in connection with the calculation of daily EURIBOR or the calculation of LIBOR may have been manipulating or attempting to manipulate EURIBOR and LIBOR. In addition, LIBOR, EURIBOR and other interest rates or other types of rates and indices which are deemed to be “benchmarks” are the subject of ongoing national and international regulatory reform, including the implementation of the IOSCO Principles for Financial Market Benchmarks (July 2013) and the new European regulation on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, which entered into force on June 30, 2016. Following the implementation of any such reforms, the manner of administration of benchmarks may change, with the result that they may perform differently than in the past, or benchmarks could be eliminated entirely, or there could be other consequences which cannot be predicted. For example, on July 27, 2017, the UK Financial Conduct Authority announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021 (the “**FCA Announcement**”). The FCA Announcement indicates that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. The potential elimination of the LIBOR benchmark or any other benchmark, changes in the manner of administration of any benchmark, or actions by regulators or law enforcement agencies could result in changes to the manner in which EURIBOR, WIBOR, PRIBOR, BUBOR or LIBOR is determined, which could require an adjustment to the terms and conditions, or result in other consequences, in respect of any debt linked to such benchmark (including but not limited to the Super Senior Revolving Credit Facility, the Existing Senior Secured GBP Facility, the Existing Senior Secured HSBC Facility and the New Senior Secured Erste Bank Facility, whose interest rates are linked to LIBOR and/or EURIBOR). Any such change, as well as manipulative practices or the cessation thereof, may result in a sudden or prolonged increase in reported EURIBOR, WIBOR, PRIBOR, BUBOR or LIBOR, which could have an adverse impact on our ability to service debt that bears interest at floating rates of interest. To the extent that interest rates were to increase significantly, our interest expense could correspondingly increase, thereby reducing our cash flow.

We require a significant amount of cash to service our debt, and our ability to generate sufficient cash depends on factors that may be beyond our control.

Our ability to service and refinance our debt and to fund future operations and capital expenditures is highly dependent on our future operating performance and our ability to generate sufficient cash flow. To a significant degree, our future operating performance and ability to generate cash flows is, in turn, dependent on various general economic, financial, competitive, market, legislative, regulatory and other factors which are outside our control. Due to any of these factors, we may be unable to generate sufficient cash flows from our operating activities, anticipated sales growth, cost saving or operational efficiency improvements, and any future debt or equity financing may not be available to us in amounts which would enable us to pay the principal premium and interest of our indebtedness, including the Notes.

To the extent our cash flow from operating activities is insufficient to meet our liquidity needs and service our debt, we would have to seek additional debt or equity financing. In addition, our subsidiaries may be restricted in certain jurisdictions within which they operate from paying dividends or making other distributions to us. If our future cash flows from operating activities and other capital resources are insufficient to pay our various obligations as they mature or to fund our ongoing liquidity needs, we and our subsidiaries may be forced, among other things, to reduce or delay business activities and capital expenditure, sell assets, or forego opportunities such as acquisitions of other businesses. There can be no assurance that any of these alternatives can be accomplished on a timely basis or on satisfactory terms, if at all. Further, we may be compelled to restructure or refinance all or a portion of our debt, including the Notes, on or before their maturity. We may face the additional risk that in order to refinance our debt, we could be required to agree to more onerous covenants, which would further restrict our business operations. The occurrence of any event described above may have a materially adverse effect on our margins and results of operations and financial condition.

We may be unable to extend or refinance our debt on favorable terms or at all.

Amounts outstanding under our Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and the New Senior Secured Facilities and other future borrowings must potentially be repaid before the maturity date of the Notes. Our ability to pay and refinance our debt or our ability to fund our working capital and capital expenditures is heavily reliant on our future operating performance and our ability to generate a sufficient cash flow. We may be unable to achieve any refinancing on a timely basis or on satisfactory terms. We may also be limited in our ability to pursue refinancing alternatives by the terms and conditions of our existing debt agreements. Our inability to refinance our debt obligations on or prior to their maturity on favorable terms or at all could have a material adverse effect on our ability to service and repay the Notes.

RISKS RELATED TO THE NOTES

The Issuer is a holding company dependent upon cash flows from its subsidiaries to meet its obligations on the Notes.

The Issuer is a holding company that has limited business operations of its own. Consequently, payment of interest and repayment of our indebtedness, including under the Notes, will be dependent on the ability of our subsidiaries to make such cash available to us, by either dividend distributions or intercompany loans, or both. Our subsidiaries may not be able to, or may be restricted by the terms of their existing or future indebtedness or by law in their ability to, make such dividend distributions or advance upstream loans to enable us to make payments in respect of our indebtedness, including the Notes. Each of our subsidiaries is a distinct legal entity and, under certain circumstances, legal and contractual restrictions may limit our ability to obtain cash from our subsidiaries.

While the Conditions of Issue, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and the New Senior Secured Facilities limit the ability of our subsidiaries to incur contractual restrictions on their ability to pay dividends or make other intercompany payments to us, these limitations are subject to certain significant qualifications and exceptions. We cannot assure you that arrangements with our subsidiaries, the funding permitted by the agreements governing existing and future indebtedness of our subsidiaries and our results of operations and cash flow generally will provide us with sufficient dividends, distributions or loans to fund payments on the Notes.

In the event that we do not receive distributions or other payments from our subsidiaries, we may be unable to make required principal payments on the Notes and interest payments on the Notes. We do not expect to have any other sources of funds that would allow us to make payments to the Holders.

The Notes and the Guarantees will be effectively subordinated to additional indebtedness that we may incur to the extent such debt is secured by assets that do not also secure the Notes.

Although the Conditions of Issue restrict the Issuer's and its restricted subsidiaries' ability to pledge any assets as collateral to secure other debt and require the Issuer and its restricted subsidiaries to secure the Notes equally and ratably if we pledge any assets for the benefit of certain other debt, both the restriction on pledging assets or incurring liens and the requirement to provide equal security to the Notes are subject to a number of significant exceptions and carve-outs. See "*Description of the Notes—Covenants—Limitation on Liens*". For example, if the Issuer or its restricted subsidiaries acquire assets subject to security interests securing other indebtedness, such security interests will be permitted to remain in place under the terms of the Conditions of Issue and will not trigger a requirement to secure the Notes or Guarantees equally and ratably. To the extent the Issuer or any of its restricted subsidiaries pledges any assets for the benefit of other debt without also securing the Notes, the Notes and the Guarantees will be effectively subordinated to such debt to the extent of the value of such assets. As a result of the foregoing, holders of (present or future) secured debt of the Issuer and its restricted subsidiaries may recover disproportionately more on their claims than the Holders in an insolvency, bankruptcy or similar proceeding. The Issuer and the Guarantors may not have sufficient assets remaining to satisfy our obligations under the Notes or the Guarantees, respectively.

The Notes and the Guarantees will be structurally subordinated to the liabilities of our non-guarantor subsidiaries.

Not all of our subsidiaries will guarantee the Notes. Our non-guarantor subsidiaries will not have any obligations to pay amounts due under the Notes or to make funds available for that purpose unless they guarantee the Notes. Generally, claims of creditors of a non-guarantor subsidiary, including trade creditors and preference shareholders (if any), will have priority with respect to the assets and earnings of the subsidiary over the claims of creditors of its parent entity, including claims by Holders under the Additional Notes or the Guarantees. In the event of any foreclosure, dissolution, winding-up, liquidation, reorganization, administration or other bankruptcy or insolvency proceeding of any of the non-guarantor subsidiaries, holders of their indebtedness and their trade creditors will generally be entitled to payment of their claims from the assets of those subsidiaries before any assets are made available for distribution to its parent entity. As such, the Notes and each Guarantee will be structurally subordinated to the creditors (including trade creditors) and preference shareholders (if any) of our non-guarantor subsidiaries. In addition, the terms of the Conditions of Issue as well as our other indebtedness allow the non-guarantor subsidiaries to incur additional debt in the future, which will be structurally senior to the Notes. See "*Description of Certain Financing Arrangements*" and "*Description of the Notes*".

We are subject to significant restrictive debt covenants under the Conditions of Issue, our Super Senior Revolving Credit Facility, our Existing Senior Secured Facilities and our New Senior Secured Facilities, all of which limit our operating flexibility.

The Conditions of Issue contain covenants which impose significant restrictions on the way we can operate, including restrictions on our ability to:

- incur or guarantee additional indebtedness or issue certain preferred stock;
- create or incur certain liens;
- pay dividends, redeem capital stock or make other distributions;
- prepay or redeem subordinated debt as equity;
- make certain other restricted payments or restricted investments;
- enter into agreements that would impose restrictions on the ability of our subsidiaries to pay dividends or make other payments to us;
- transfer or sell assets;
- engage in certain transactions with affiliates;

- merge or consolidate with other entities; and
- impair the security interests for the benefit of the holders of the Notes.

These covenants could limit our ability to finance our future operations and capital needs and our ability to pursue acquisitions and other business activities that may be in our interest. The Conditions of Issue will permit us to incur unsecured as well as secured debt in the future, which may be substantial.

In addition, our Super Senior Revolving Credit Facility, our Existing Senior Secured Facilities and our New Senior Secured Facilities include covenants that, in general, impose similar, if not tighter, restrictions on the actions mentioned above. In addition, the covenants under our Super Senior Revolving Credit Facility, our Existing Senior Secured Facilities and our New Senior Secured Facilities impose further restrictions on the way we can operate, including restrictions on our ability to:

- purchase Notes in the secondary market;
- transfer our center of main interest to a jurisdiction outside of Germany; and
- amend constitutional documents.

The Super Senior Revolving Credit Facility also includes a springing interest coverage ratio covenant, which requires us to maintain a certain minimum interest coverage ratio (i) at any quarterly testing date during a time during which the aggregate base currency amount of all utilizations and cash ancillary outstanding under the Super Senior Revolving Credit Facility will be equal to or greater than 40 per cent. of the total commitments thereunder (a “**Trigger Period**”) or (ii) if a utilization has been requested at any time where a Trigger Period is continuing or would be caused by the proposed utilization. For a maximum of four times during the life of the facilities under the Super Senior Revolving Credit Facility, a breach of this covenant will only constitute a default if it is not complied with in respect of two successive testing periods. See “*Description of Certain Financing Arrangements—Super Senior Revolving Credit Facility*”. Our ability to meet these financial tests may be affected by events beyond our control and, as a result, we may not be able to meet these tests. Any breach of the interest coverage ratio covenant under the Super Senior Revolving Credit Facility could result in a draw-stop under the Super Senior Revolving Credit Facility and/or an acceleration of that facility, which in turn could, subject to certain threshold amounts being reached, trigger a cross acceleration of the Notes, the Existing Senior Secured Facilities or the New Senior Secured Facilities.

As a result of cross-acceleration or cross-default provisions in the instruments discussed above or under any other outstanding debt instruments, any breach of any covenant under those instruments could result in all amounts outstanding under any such instrument being accelerated and becoming due and payable. We may be unable to pay these debts in such circumstances.

It may be difficult to realize the value of the Collateral.

The Collateral will be subject to exceptions, defects, encumbrances, liens and other imperfections permitted under the Conditions of Issue, the terms of the Super Senior Revolving Credit Facility, the terms of the Existing Senior Secured Facilities and the terms of the New Senior Secured Facilities, whether on or after the date the Additional Notes are first issued. The existence of such exceptions, defects, encumbrances, liens and other imperfections could adversely affect the value of the Collateral, as well as the ability of the Security Agent to realize or foreclose on such Collateral. Furthermore, the first-priority ranking of security interests can be affected by a variety of factors, including the timely satisfaction of perfection requirements (including registration requirements), statutory liens or re-characterization under the laws of certain jurisdictions.

The Collateral may be subject to practical problems generally associated with the realization of security interests in collateral. For example, because we operate in a market environment subject to production overcapacity from time to time, it may be difficult for the Security Agent to sell our manufacturing facilities or other assets in an enforcement scenario. The Security Agent may also need to obtain the consent of a third party to enforce a security interest. The Security Agent may not be able to obtain any such consent. In addition, the consents of any third parties may not be given, when required, to facilitate a foreclosure on such assets. Accordingly, the Security Agent may not have the ability to foreclose upon those assets, and the value of the Collateral may significantly decrease.

Pursuant to the Intercreditor Agreement, creditors under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities are entitled to be repaid with the proceeds of the Collateral sold in any enforcement procedure in priority to the Notes.

From and following the issue date of the Additional Notes, the obligations of the Issuer under the Additional Notes and the related Guarantees and the New Senior Secured Facilities will be secured on a first-ranking basis with security interests over Collateral that also secure our obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, certain Hedging Obligations and certain Cash Management Liabilities. The Conditions of Issue also permit the Collateral to be pledged to secure additional indebtedness in accordance with the terms thereof and the Intercreditor Agreement. Pursuant to the Intercreditor Agreement, the liabilities under the Super Senior Revolving Credit Facility as well as certain Priority Hedging Obligations and certain Cash Management Liabilities will have priority over any amounts received from the sale of the Collateral pursuant to an enforcement action taken with respect to the Collateral. As such, in the event of a foreclosure on the Collateral, you may not be able to recover on the Collateral if the then-outstanding claims under the Super Senior Revolving Credit Facility and such amount in respect of such Priority Hedging Obligations or such Cash Management Liabilities are greater than the proceeds realized. Any proceeds from an enforcement sale of the Collateral by any creditor will, after all obligations under the Super Senior Revolving Credit Facility and such amount in respect of such certain Priority Hedging Obligations and Cash Management Liabilities have been discharged from such recoveries, be applied *pro rata* in repayment of the Notes and any other obligations secured by the Collateral on an equal basis with the Notes.

The Intercreditor Agreement provides that a common security agent, who also serves as the security agent in relation to the holders of the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities, our hedging obligations, our Cash Management Liabilities and any additional secured debt permitted to be incurred under the Conditions of Issue, the Super Senior Revolving Credit Facility and the Senior Secured Facilities, will act only as provided for in the Intercreditor Agreement.

In general, the facility agent under the Super Senior Revolving Credit Facility, the holders of the Notes and the agents under our Senior Secured Facilities and any permitted future senior secured debt, voting as provided below, will have, subject to certain restrictions, the ability to provide enforcement instructions to the Security Agent to enforce the shared Collateral. The Intercreditor Agreement provides that, where there is an inconsistency between enforcement instructions provided by the holders of 66⅔% of the aggregate of all outstanding liabilities under the Super Senior Revolving Credit Facility, certain hedging liabilities and cash management liabilities (the “**Majority Super Senior Creditors**”) and the holders of more than 50% of the total “**Majority Pari Passu Creditors**”, being the aggregate of the Notes and all liabilities outstanding under the Senior Secured Facilities and any other indebtedness sharing the Collateral on a first-ranking basis, the latter instructions will prevail. However, if and to the extent the obligations under the Super Senior Revolving Credit Facility and other super senior liabilities have not been fully discharged within six months of the end of an initial consultation period or no enforcement action has been taken within three months of such date or an insolvency event (as defined in the Intercreditor Agreement) occurs, the enforcement instructions provided by the Majority Super Senior Creditors will prevail. The lenders under the Super Senior Revolving Credit Facility, certain hedging counterparties and cash management providers may have interests that are different from the interests of holders of the Notes, and they may, subject to the terms of the Intercreditor Agreement, elect to pursue their remedies under the Security Documents at a time when it would be disadvantageous for the holders of the Notes to do so.

These arrangements could be disadvantageous to the holders of the Notes in a number of other respects. Other creditors not subject to the Intercreditor Agreement could commence enforcement action against the Issuer or its subsidiaries during such period, the Issuer or one or more of its subsidiaries could seek protection under applicable bankruptcy laws, or the value of certain Collateral could otherwise be impaired or reduced in value.

In addition, in certain circumstances, including acceleration of the Super Senior Revolving Credit Facility, the Senior Secured Facilities or the Notes, any amounts recovered from the enforcement of Collateral or other asset sales will be required to be turned over to the Security Agent. Subject to the prior payment of fees and expenses of the agent under the Super Senior Revolving Credit Facility, the Holders’ Representative and Security Agent, the Intercreditor Agreement requires the Security Agent to pay amounts turned over to it or otherwise received by it in respect of the Notes, such as proceeds from the enforcement of the Collateral and other asset sales, to the lenders under the Super Senior Revolving

Credit Facility and counterparties to certain hedging obligations and certain cash management providers in priority to the holders of the Notes and lenders under our Senior Secured Facilities.

Each Guarantee and the Collateral will be subject to certain limitations on enforcement and may be limited by applicable laws or subject to certain defenses that may limit its validity and enforceability.

The Guarantee Agreement will provide that each guarantee in relation to each Guarantee and the Collateral will be limited as necessary to recognize certain defenses generally available to guarantors and security providers (including those that relate to general statutory limitations, capital maintenance, corporate benefit, fraudulent preference, financial assistance or thin-capitalization rules or other similar laws or regulations (or analogous restrictions) of any applicable jurisdiction). See “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*”.

If one or more of these laws and defenses are applicable, a Guarantor or security provider may have no liability or decreased liability under its guarantee or Collateral, as applicable, depending on the amounts of its other obligations and applicable law.

Although laws differ among various jurisdictions, in general, under bankruptcy or insolvency law and other laws, a court could (i) avoid or invalidate all or a portion of a Guarantor’s or security provider’s obligations under its guarantee or Collateral, as applicable, (ii) direct that the recipient returns any amounts paid under a guarantee, or return any proceeds received in connection with the enforcement of Collateral, to the relevant Guarantor or security provider or to a fund for the benefit of the Guarantor’s or security provider’s creditors or (iii) take other action that is detrimental to you, typically if the court found that:

- the relevant guarantee was incurred, or the relevant Collateral was granted, with actual intent to give preference to one creditor over another, hinder, delay or defraud creditors or shareholders of the Guarantor or security provider, as applicable, or, in certain jurisdictions, when the granting of the guarantee or Collateral, as applicable, has the effect of giving a creditor a preference or when the recipient was aware that the Guarantor or security provider, as applicable, was insolvent when it granted the relevant guarantee or Collateral, as applicable;
- the Guarantor or security provider, as applicable, did not receive fair consideration or reasonably equivalent value or corporate benefit for the relevant guarantee or Collateral, as applicable, and the Guarantor or security provider, as applicable, was: (i) insolvent or rendered insolvent because of the relevant guarantee or Collateral, as applicable; (ii) undercapitalized or became undercapitalized because of the relevant guarantee or Collateral, as applicable; or (iii) intended to incur, or believed that it would incur, indebtedness beyond its ability to pay at maturity;
- the relevant guarantee or Collateral, as applicable, was held to exceed the corporate objects of the Guarantor or security provider, as applicable, or not to be in the best interests or for the corporate benefit of the Guarantor or security provider, as applicable; or
- the amount paid or payable under the relevant guarantee or enforced or to be enforced under the relevant Collateral, as applicable, was in excess of the maximum amount permitted under applicable law. These or similar laws may also apply to any future guarantee or Collateral granted by any of our subsidiaries pursuant to the Guarantee Agreement.

We cannot assure you which standard a court would apply in determining whether a Guarantor or security provider, as applicable, was “insolvent” at the relevant time or that, regardless of the method of the valuation, a court would not determine that a Guarantor or security provider, as applicable, was insolvent on that date, or that a court would not determine, regardless of whether or not a Guarantor or security provider, as applicable, was insolvent on the date its guarantee was issued or Collateral was granted, as applicable, that payments to holders of the Notes, constituted preferences, fraudulent transfers or conveyances on other grounds.

The liability of each Guarantor or security provider, as applicable, under its guarantee or Collateral, as applicable, will be limited to the amount that will result in such guarantee or Collateral, as applicable, not constituting a preference, fraudulent transfer or conveyance or otherwise being set aside. However, there can be no assurance as to what standard a court will apply in making a determination of the maximum liability of each Guarantor or security provider, as applicable. There is a possibility that the entire guarantee or Collateral, as applicable, may be set aside, in which case the entire liability may be extinguished.

If a court decided that a guarantee or Collateral, as applicable, was a preference, fraudulent transfer or conveyance and voided such guarantee or Collateral, as applicable, or held it unenforceable for any other reason, you may cease to have any claim in respect of the relevant Guarantor or security provider, as applicable, and would be a creditor solely of the Issuer and, if applicable, of any other Guarantor or security provider under the relevant guarantee or Collateral, as applicable, that has not been declared void. In the event that any guarantee or Collateral, as applicable, is invalid or unenforceable, in whole or in part, or to the extent the agreed limitation of the guarantee or Collateral, as applicable, obligations apply, the Notes, would be effectively subordinated to all liabilities of the applicable Guarantor or security provider, and if we cannot satisfy our obligations under the Notes, or any guarantee or Collateral, as applicable, is found to be a preference, fraudulent transfer or conveyance or is otherwise set aside, we cannot assure you that we can repay in full the amounts outstanding under the Notes.

See “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*”.

Enforcement of the Collateral across multiple jurisdictions may be difficult.

The Collateral will be governed by the laws of multiple jurisdictions. In the event of bankruptcy, insolvency or a similar event, proceedings could be initiated in any of these jurisdictions. The rights under the Collateral will thus be subject to the laws of the respective jurisdiction, and it may be difficult to effectively enforce such rights in multiple bankruptcies, insolvency and other similar proceedings. Moreover, such multi-jurisdictional proceedings are typically complex and costly for creditors and often result in substantial uncertainty and delay in the enforcement of creditors’ rights. The application of these various laws in multiple jurisdictions could trigger disputes over which jurisdiction’s law should apply and could adversely affect the ability to enforce the security and to realize any recovery under the Notes and the Guarantees. A summary description of certain aspects of the insolvency laws of Germany and certain other jurisdictions are set out in “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*”.

You may be required to pay a cash amount (“soulte”) in the event you decide to enforce the pledge over securities granted under French law by judicial or contractual foreclosure of the Collateral consisting of securities rather than by a sale of such Collateral in a public auction.

Security interests governed by French law may only secure a creditor up to the secured amount that is due and unpaid to it. Under French law, pledges over securities account may generally be enforced at the option of the secured creditors either (i) by way of a sale of the pledged securities in a public auction (the proceeds of the sale being paid to the secured creditors) or (ii) by way of judicial foreclosure (*attribution judiciaire*) or contractual foreclosure (*pacte comissoire*) of the pledged securities to the secured creditors, following which the secured creditors become the legal owners of the pledged securities. If the secured creditors choose to enforce by way of foreclosure (whether a judicial foreclosure or contractual foreclosure), the secured liabilities would be deemed extinguished up to the value of the foreclosed securities. Such value is determined either by the court in the context of a judicial foreclosure or by a pre-contractually agreed expert in the context of a contractual foreclosure.

If the value of the Collateral exceeds the amount of secured debt, the secured creditors may be required to pay the pledgor a cash amount (*soulte*) equal to the difference between the value of the securities as so determined and the amount of the secured debt. This is true regardless of the actual amount of proceeds ultimately received by the secured creditors from a subsequent on-sale of the Collateral.

If the value of such securities is less than the amount of the secured debt, the relevant amount owed to the relevant creditors will be reduced by an amount equal to the value of such securities, and the remaining amount owed to such creditors will be unsecured in that respect.

An enforcement of the pledged securities could be undertaken through a public auction in accordance with applicable law. If enforcement is implemented through a public auction procedure, it is possible that the sale price received in any such auction might not reflect the value of the securities, since the latter will not be sold pursuant to a competitive bid process and/or a private sale organized by an investment bank and controlled by the vendor on the basis of a value determined pursuant to the methods usually used for the purpose of the acquisition of companies or groups of companies. See “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests—France—Limitations on enforcement of security interests and cash amount (“soulte”)*”.

The insolvency laws of Germany, Poland, the Czech Republic and the United Kingdom may not be as favorable to you as the U.S. bankruptcy laws and may preclude holders of the Notes, from recovering payments due on the Notes.

The Issuer and certain Guarantors are organized under the laws of Germany, Poland, the Czech Republic and the United Kingdom. In the event of a bankruptcy, insolvency or similar event, proceedings could be initiated in Germany, Poland, the Czech Republic and the United Kingdom or other relevant jurisdiction. Such multi-jurisdictional proceedings may be complex and more costly for creditors and otherwise may result in greater uncertainty and delay regarding the enforcement of your rights. Your rights under the Notes, the Guarantees and the Collateral will be subject to the insolvency and administrative laws of several jurisdictions, and there can be no assurance that you will be able to effectively enforce your rights in such complex, multiple bankruptcy, insolvency or similar proceedings.

In addition, the bankruptcy, insolvency, administrative and other laws of the Issuer's and the Guarantors' jurisdictions of organization or incorporation may be materially different from, or in conflict with, each other and those of the United States, including in the areas of rights of creditors, priority of governmental and other creditors, ability to obtain post-petition interest and duration of the proceeding. The application of these laws, or any conflict among them, could call into question whether any particular jurisdiction's law should apply, adversely affect your ability to enforce your rights under the Notes, and the related guarantees in those jurisdictions or limit any amounts that you may receive. For example, under English insolvency law, among other powers, a liquidator or administrator of an English company could apply to the court for an order to set aside the creation of a security interest or a guarantee if such liquidator or administrator believes that the creation of such security interest or guarantee constituted a transaction at an undervalue or constituted a preference, each as defined in the relevant insolvency laws and in each case, where the action took place within a specified time period before the insolvency of the relevant entity.

For more information, regarding insolvency laws and enforceability issues as they relate to the Guarantees and security interests in the Collateral, see "*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*".

Rights in the Collateral may be adversely affected by the failure to perfect security interests in the Collateral.

The liens on the Collateral securing the Notes may not be perfected in terms of validity, enforceability, ranking or otherwise with respect to the claims of the Notes if we, the Security Agent or any other third party, fail or are unable to take the actions (e.g., as for filing, registration, modification or other requirements) required to perfect any of these liens. Furthermore, it should be noted that neither the Holders' Representative nor the Security Agent shall have any obligation to take any steps or action to perfect any of these liens.

The granting of the security interests in connection with the Notes may fall within the scope of hardening periods for such security interests in accordance with the laws applicable in certain jurisdictions.

The granting of security interests to secure the Notes and the Guarantees, when issued, may fall within the scope of hardening periods in accordance with the laws applicable in certain jurisdictions. If the security interest were granted or recreated or were to be enforced during the respective hardening period applicable in such jurisdiction, it may be declared void or ineffective and/or it may not be possible to enforce it.

Under the laws of certain jurisdictions, collateral granted in favor of holders of the Additional Notes may not rank pari passu with the collateral granted in favor of holders of the Existing Notes, lenders under the Super Senior Revolving Credit Facility, lenders under the Existing Senior Secured Facilities and creditors of any other indebtedness sharing the Collateral, and we are relying on the Intercreditor Agreement to achieve an equal priority lien in respect of such collateral.

Under the laws of certain jurisdictions, we will enter into new security documents over the collateral with respect to the additional debt represented by the Additional Notes. In certain jurisdictions, the security granted under those additional security documents will, because they are being granted at a later point in time, rank junior to security interests in the collateral granted in favor of the Existing Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and any other indebtedness sharing the Collateral. The Intercreditor Agreement provides that the benefit of the first and junior ranking pledges over such collateral be shared equally by the holders of all of the Notes, the lenders under our

Senior Secured Facilities, the lenders under the Super Senior Revolving Credit Facility, certain hedging obligations and cash management liabilities (subject to super senior priority status accorded to certain liabilities in accordance with the terms of the Intercreditor Agreement). Therefore, the ranking of collateral granted in favor of holders of the Additional Notes in such jurisdictions will depend on the enforceability of the Intercreditor Agreement. As a result, if the Intercreditor Agreement is found to be invalid or unenforceable for any reason, or if an administrator refuses to give effect to it, the collateral granted in favor of holders of the Additional Notes in these jurisdictions may rank behind any other existing collateral, including collateral granted in favor of the Existing Notes, the Super Senior Revolving Credit Facility and the Existing Senior Secured Facilities.

The Guarantees and security interests in the Collateral for the benefit of Holders of the Additional Notes will be granted to the Security Agent rather than directly to you.

The Guarantees and the security interests in the Collateral that will secure the obligations of the Issuer under the Additional Notes and the obligations of the Guarantors under the Guarantees of the Additional Notes will not be granted directly to the holders of the Additional Notes. Instead, they will be granted only in favor of the Security Agent.

The Conditions of Issue provide that only the Security Agent has the right to enforce the Security Documents in accordance with the terms of the Intercreditor Agreement and the Guarantees in accordance with the terms thereof. As a consequence, holders of the Notes will not have direct security interests or Guarantee claims and will not be entitled to take enforcement action in respect of the Collateral securing the Notes or the Guarantees, except through the Holders' Representative, who will (on behalf of the holders of the Notes and subject to the provisions of the Conditions of Issue, the Guarantee Agreement and the Intercreditor Agreement) provide instructions to the Security Agent in respect of the Collateral or the Guarantees.

In addition, the ability of the Security Agent to enforce the security interests in the Collateral is subject to mandatory provisions of the laws of each jurisdiction in which security interests over the Collateral are taken. For example, the laws of certain jurisdictions may not allow for an appropriation of certain pledged assets, but require a sale through a public auction and certain waiting periods may apply. There is some uncertainty under the laws of certain jurisdictions as to whether obligations to beneficial owners of the Notes that are not identified as registered holders in a Security Document will be validly secured. In certain jurisdictions, including, among others, Germany, due to the laws and other jurisprudence governing the creation and perfection of security interests and enforceability of such security interests, the respective Collateral will secure a so-called "parallel debt" obligation (the "**Parallel Debt Obligation**") created under the Intercreditor Agreement in favor of the Security Agent as well as, or in lieu of, securing the obligations under the Notes directly. This parallel debt structure is used where certain jurisdictions have legal requirements relating to the creation and ongoing valid existence of security interests which are linked with the original secured claims and where certain actions under the finance documents, such as novation, may cause invalidity of the security interests under local law. The parallel debt is in the same amount and payable at the same time as the obligations of the Issuer and the Guarantors under the Notes and the Guarantees (the "**Principal Obligations**"), and any payment in respect of the Principal Obligations will discharge the corresponding parallel debt and any payment in respect of the parallel debt will discharge the corresponding Principal Obligations. Although the Security Agent will have, pursuant to the parallel debt, a claim against the Issuer and the Guarantors for the full principal amount of the Notes, the parallel debt structure has not been tested in court in these jurisdictions, including Germany, and there is no judicial guidance as to its efficacy or validity. Therefore, the ability of the Security Agent to enforce the Collateral may be restricted, or the parallel debt structure might not be capable of creating a valid security interest on the part of the Security Agent.

In addition, holders of the Notes bear some risk associated with a possible insolvency or bankruptcy of the Security Agent which could in particular, under certain circumstances, result in a delay in enforcement, diminishing value or even loss of the Collateral or Guarantees.

There are circumstances other than repayment or discharge of the Notes, under which the Collateral and the Guarantees may be released automatically, without your consent or the consent of the Holders' Representative.

Under various circumstances, Collateral securing the Notes and the Guarantees may be released automatically, including, without limitation, the following:

- in connection with any sale, exchange or transfer (including by merger or otherwise) of Collateral to any person other than the Issuer or any restricted subsidiary permitted under, and made in compliance with, the Conditions of Issue;
- upon payment in full of principal, interest and all other obligations in respect of the Notes in accordance with the Conditions of Issue;
- in the case of a Guarantor that is released from its Guarantee (with respect to the Collateral granted by such Guarantor);
- if a restricted subsidiary is designated to be an unrestricted subsidiary, the release of the property, assets and capital stock of such restricted subsidiary;
- upon legal defeasance, covenant defeasance or discharge of the Conditions of Issue;
- as described under “*Description of the Notes—Amendments and Waivers*”, “*—Covenants—Merger and Consolidation*” and “*—Impairment of Security Interest*”;
- if the lien granted in favor of other indebtedness that gave rise to the obligation to grant the lien over such Collateral is released (other than pursuant to the repayment and discharge thereof);
- in connection with the granting or creation of certain “Permitted Liens”, including in connection with “Packaging Park Projects”;
- with respect to the pledges over the shares in Issuer and any Collateral in respect of receivables of the Parent against the Issuer or any of its subsidiaries, insurance and intra-group receivables, upon the release and discharge (other than as a result of an enforcement action) of any and all liens (other than “Permitted Liens”) over such Collateral securing indebtedness, so long as no event of default exists at such time or would arise as a result of such release;
- with respect to any Collateral (other than pledges over the shares in the Issuer and any Collateral in respect of receivables of the Parent against the Issuer or any of its subsidiaries, insurance and intra-group receivables), upon the release and discharge (other than as a result of an enforcement action) of any and all liens (other than “Permitted Liens”) over such Collateral securing indebtedness, so long as no event of default exists at such time or would arise as a result of such release; provided that at the time of such release a Rating Triggering Period (as defined in the Conditions of Issue) is in effect.

In addition, under various circumstances, the Guarantees, may be released automatically, including, without limitation, the following:

- upon any sale, exchange or transfer (including by way of consolidation or merger) of ownership interests in the Guarantor (directly or through a parent company) such that a Guarantor does not remain a restricted subsidiary, or upon a sale or other disposition of all or substantially all the assets of a Guarantor (other than to the Issuer or a restricted subsidiary), in each case, otherwise not prohibited by the Conditions of Issue;
- upon payment in full of principal, interest and all other obligations in respect of the Notes, in accordance with the Conditions of Issue;
- if a Guarantor is designated to be an unrestricted subsidiary;
- upon legal defeasance, covenant defeasance or satisfaction and discharge of the Conditions of Issue;
- upon the release of any guarantee of indebtedness that resulted in the creation of such guarantee under the Conditions of Issue, so long as no event of default has occurred and is continuing, to the extent that such Guarantor does not guarantee certain other debt; and
- as described under “*Description of the Notes—Amendments and Waivers*” and “*—Covenants—Merger and Consolidation*”.

We may not be able to repay the Notes, when due or to repurchase the Notes when we are required to do so pursuant to certain events constituting a change of control or otherwise, and the change of control provision contained in the Conditions of Issue may not necessarily afford you protection in the event of certain important corporate events.

At final maturity of the Notes, or in the event of acceleration of the Notes, following an event of default including a cross acceleration event, the entire outstanding principal amount of the Notes, will become due and payable. In addition, upon the occurrence of certain events constituting a change of control, holders of the Notes, may in certain circumstances require the Issuer to make an offer to purchase the Notes at a purchase price equal to 101% of the principal amount, plus accrued but unpaid interest and additional amounts, if any, to the purchase date. See “*Description of the Notes—Repurchase at the Option of Holders upon a Change of Control*”. The Issuer may not have sufficient funds or may be unable to arrange for additional financing to pay these amounts when they become due.

The Issuer’s failure to repay holders tendering Notes, as applicable, upon the occurrence of a change of control event would result in an event of default under the Notes. We cannot assure you that we would have sufficient funds to repay our outstanding indebtedness which we would be required to prepay or offer to purchase or that became immediately due and payable as a result. We may require additional financing from third parties to fund any such purchases and we cannot assure you that we would be able to obtain financing on satisfactory terms or at all. Restrictions in our other then-existing contractual obligations may also restrict us from making such required repurchases.

A change of control may result in an event of default under, or acceleration of our then-existing indebtedness, and the repurchase of the Notes, pursuant to such an offer could cause a default under such indebtedness even if the change of control itself does not. The change of control provision contained in the Conditions of Issue may not necessarily afford you protection in the event of certain important corporate events, including reorganization, restructuring, merger or other similar transaction involving us that may adversely affect you, because such corporate events may not involve a shift in voting power or beneficial ownership or, even if they do, may not constitute a “change of control” as defined in the Conditions of Issue.

The definition of “change of control” contained in the Conditions of Issue includes a disposition of all or substantially all the assets of the Issuer and its restricted subsidiaries taken as whole. Although there is a limited body of case law in some jurisdictions interpreting the phrase “all or substantially all”, there is no precise established definition of the phrase under law and there is no German case law interpreting “all or substantially all” in the context of terms and conditions of high yield notes or other debt instruments. Accordingly, in certain circumstances there may be a degree of uncertainty as to whether a particular transaction would involve a disposition of “all or substantially all” the assets of the Issuer and its restricted subsidiaries taken as a whole. As a result, it may be unclear as to whether a change of control has occurred and whether the Issuer is required to make an offer to repurchase the Notes.

Certain amendments to the Conditions of Issue may be passed with the consent of 90% of less than the majority of the Notes outstanding.

The Conditions of Issue, may be amended by a vote of the holders of the Notes. Amendments require a majority of not less than 50.1% of votes cast or, for certain amendments, 90% of the votes cast as opposed to 50.1% or 90%, respectively, of the aggregate principal amount of the Notes outstanding. Certain further amendments to the Conditions of Issue, require approval of 100% of the holders of the Notes. The voting process under the Conditions of Issue will be governed in accordance with the German Act on Debt Securities of 2009 (*Gesetz über Schuldverschreibungen aus Gesamtemissionen, Schuldverschreibungsgesetz, SchVG*), pursuant to which the quorum for noteholder votes is principally set at a simple majority. Accordingly, the aggregate principal amount of Notes required to vote in favor of an amendment will vary based on the noteholder votes participating. For example, if the holders of less than 55.5% of the aggregate principal amount of the Notes participate in a vote, any proposed amendment, including amendments subject to the 90% threshold, can be passed with less than a majority of the aggregate principal amount of the Notes consenting. See “*Description of the Notes—Amendments and Waivers*”.

You may be unable to recover in civil proceedings for U.S. securities laws violations.

The Issuer is incorporated in Germany. The Guarantors of the Notes are incorporated in the Czech Republic, Germany, Poland and the United Kingdom. Each member of our management team and the directors and executive officers of the Guarantors are non-residents of the United States, and all of our

assets and the assets of the Guarantors and such persons are located outside the United States. It may not be possible for investors to effect service of process within the United States upon the Issuer, a Guarantor or such persons or to enforce against any of them in U.S. courts judgments predicated upon the civil liability provisions of the federal securities laws of the United States, and there is doubt as to the enforceability in the home jurisdictions of the other Guarantors of civil liabilities predicated upon the federal securities laws of the United States, either in original actions or in actions for enforcement of judgments of U.S. courts. It may also not be possible for investors to effect service of process within Germany upon the Issuer or the Guarantors or those persons under the Convention on Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Matters and the German law implementing such convention if such service were deemed to infringe German sovereignty or security, particularly if such service violated the German Constitutional Law (*Grundgesetz*). If a judgment is obtained in a U.S. court against the Issuer or any Guarantor or a security provider, investors will need to enforce such judgment in jurisdictions where the relevant company has assets. As all the assets of the Issuer and the Guarantors and the assets of its and their directors are located outside of the United States, you may be unable to enforce judgments obtained in the U.S. courts against us or them. See “*Service of Process and Enforcement of Civil Liabilities*”.

The transferability of the Additional Notes may be limited under applicable securities laws.

None of the Additional Notes or the Guarantees have been, or will be, registered under the U.S. Securities Act or the securities laws of any state or any other jurisdiction and, unless so registered, may not be offered or sold in the United States, except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the U.S. Securities Act and the applicable securities laws of any state or any other jurisdiction. See “*Transfer Restrictions*”. It is the obligation of holders of Additional Notes to ensure that their purchase and any subsequent transfer of the Additional Notes within the United States and other countries comply with applicable securities laws. Any of these restrictions and requirements will limit the ability of investors to resell the Additional Notes and the Guarantees.

The Additional Notes may not be fungible with the Existing Notes for a period of one year after their issuance.

Any Additional Notes issued pursuant to Regulation S will share the same ISIN and the same common code as the Existing Notes issued pursuant to Regulation S, and will be fungible with the Existing Notes issued pursuant to Regulation S as of their issuance.

Any Additional Notes issued pursuant to Rule 144A will initially have a separate ISIN and common code from the Existing Notes issued pursuant to Rule 144A, until the termination of certain U.S. selling restrictions one year after the issue date of the Additional Notes. Only after the expiration of this one year period, the Additional Notes issued pursuant to Rule 144A and the Existing notes issued pursuant to Rule 144A will share the same ISIN and common code as the Existing Notes issued pursuant to Rule 144A, and will become fungible with the Existing Notes issued pursuant to Rule 144A. This may impact the tradability and price of any Additional Notes issued pursuant to Rule 144A.

There may not be an active trading market for the Notes, in which case your ability to sell the Additional Notes may be limited.

We cannot assure you as to the liquidity of any market for the Notes, your ability to sell your Additional Notes, or the prices at which you would be able to sell your Additional Notes.

Future trading prices of the Notes will depend on many factors, including, among other things, prevailing interest rates, our operating results and the market for similar securities. Historically, the market for non-investment grade securities has been subject to disruptions that have caused substantial volatility in the prices of securities similar to the Notes. The liquidity of a trading market for the Notes may be adversely affected by a general decline in the market for similar securities and is subject to disruptions that may cause volatility in prices. It is possible that the market for the Notes will be subject to disruptions. Any such disruption may have a negative effect on you, as a holder of the Notes, regardless of our prospects and financial performance. The Initial Purchasers have advised us that they currently intend to make a market in the Notes. The Initial Purchasers are not, however, obliged to do so, and they may discontinue any market-making activities at any time without notice. As a result, there is no assurance that there will be an active trading market for the Notes, and you may therefore not be able to resell your Additional Notes at a fair value, if at all.

The Additional Notes may not become, or remain, listed on the Official List of The International Stock Exchange.

Although the Issuer will, in the Conditions of Issue, agree to use its reasonable best efforts to have the Additional Notes listed on the Official List of The International Stock Exchange (the “Exchange”) within a reasonable period after the issue date of the Additional Notes and to maintain such listing as long as the Notes are outstanding, the Issuer cannot assure you that the Additional Notes will become or remain listed. If the Issuer cannot maintain the listing on the Official List of the Exchange or it becomes unduly burdensome to make or maintain such listing, the Issuer may cease to make or maintain such listing, provided that it will use reasonable best efforts to obtain and maintain the listing of the Notes on another stock exchange, although there can be no assurance that the Issuer will be able to do so. Notwithstanding the foregoing, the Issuer may at its sole option at any time, without the consent of the Holders or the Holders’ Representative, de-list the Notes from any stock exchange for the purposes of moving the listing of the Notes to another recognized stock exchange for high yield issuers (which may be a stock exchange that is not regulated by the European Union).

Although no assurance is made as to the liquidity of the Additional Notes as a result of listing on the Official List of the Exchange or another recognized listing exchange for comparable issuers in accordance with the Conditions of Issue, failure to be approved for listing or the delisting (whether or not for an alternative admission to listing on another stock exchange) of the Additional Notes from the Official List of the Exchange or another listing exchange in accordance with the Conditions of Issue may have a material effect on a Holder’s ability to resell the Additional Notes in the secondary market.

The interests of Holders of the Notes may be inconsistent with those of the lenders under the Super Senior Revolving Credit Facility or the lenders under our Senior Secured Credit Facilities.

The Super Senior Revolving Credit Facility and our Senior Secured Credit Facilities have different maturity dates, prepayment schedules and prepayment provisions and will have other features that differ from the corresponding terms in the Conditions of Issues governing the Notes. As a result of these differences, the interests of holders of the Notes could conflict with those of the lenders under our Super Senior Revolving Credit Facility and/or the lenders under our Senior Secured Credit Facilities. For example, the lenders under one or more of our Senior Secured Credit Facilities may be in a position to agree to certain amendments that would be beneficial to them but adverse to the economic interest of the Holder of the Notes.

Investors may face foreign exchange risks by investing in the Additional Notes.

The Additional Notes offered hereby are denominated and payable in euros. If you measure your investment returns by reference to a currency other than euros, an investment in the Additional Notes will entail foreign exchange risks related to, among other factors, possible significant changes in the value of the euro relative to the currency by reference to which you measure the return on your investments because of economic, political and other factors over which we have no control. Depreciation of the euro against the currency by reference to which you measure the return on your investments could cause a decrease in the effective yield of the Additional Notes below the stated coupon rate and could result in a loss to you when the return on the Additional Notes is translated into the currency by reference to which you measure the return on your investments. There may be tax consequences for you as a result of any foreign exchange gains or losses resulting from an investment in the Additional Notes. See “*Taxation—Certain U.S. Federal Income Tax Considerations*”.

Credit ratings may not reflect all risks, are not recommendations to buy or hold securities and may be subject to revision, suspension or withdrawal at any time.

The Existing Notes have been assigned credit ratings by Standard and Poor’s Rating Services and Moody’s Investor Service, Inc. The credit ratings address our ability to perform our obligations under the terms of the Notes and credit risks in determining the likelihood that payments will be made when due under the Notes. The ratings may not reflect the potential impact of all risks related to the structure, market, additional risk factors discussed above and other factors that may affect the value of the Notes. A credit rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal by the rating agency at any time. No assurance can be given that a credit rating will remain constant for any given period of time or that a credit rating will not be lowered or withdrawn entirely by a credit rating agency in the future if in its judgment circumstances so warrant. A suspension, reduction or

withdrawal at any time of the credit rating assigned to the Notes by one or more credit rating agencies may adversely affect the cost and terms of our financings and could adversely affect the value and trading of the Notes.

Certain covenants may be suspended upon the occurrence of a change in our ratings.

The Conditions of Issue provide that, if at any time following the issue date of the Existing Notes, the Notes receive a rating of “BBB –” or better from Standard & Poor’s and “Baa3” or better from Moody’s and no default or event of default has occurred and is continuing, then beginning that day and continuing until such time that the Notes receive a rating of below “BBB –” from Standard & Poor’s and below “Baa3” from Moody’s, certain covenants will cease to be applicable to the Notes. See “*Description of the Notes—Covenants—Suspension of Covenants*”. If these covenants were to cease to be applicable, we would be able to incur additional indebtedness or make payments, including dividends or investments, which may conflict with the interests of holders of the Notes. There can be no assurance that the Notes, will ever achieve an investment grade rating or that any such rating will be maintained.

The Additional Notes will be held in book-entry form and therefore you must rely on the procedures of the relevant clearing systems to exercise any rights and remedies.

The Additional Notes will initially only be issued in global certificated form and held through Clearstream Banking. Interests in the global notes will be recorded in book-entry form only. Ownership of interests in each global note will be limited to persons who have accounts with Clearstream Banking or persons who hold interests through participants. The global notes representing the Additional Notes will be deposited with Clearstream Banking. Payments of principal, interest and other amounts owing on or in respect of the global notes representing the Additional Notes will be made to Deutsche Bank AG as Paying Agent, which will make payments to Clearstream Banking. Clearstream Banking will, in turn, distribute those payments to its participants that hold book-entry interests in the global notes representing the Additional Notes in accordance with its procedures and these payments will be credited by such participants to indirect participants for the benefit of the holders of the co-ownership interests (*Miteigentumsanteile*) in the Additional Notes represented by each global note. After payment to Clearstream Banking, we will have no responsibility or liability for the payment of interest, principal or other amounts in respect of the Additional Notes. Accordingly, if you own a book-entry interest, you must rely on the procedures of Clearstream Banking and, if you are not a participant in Clearstream Banking, on the procedures of the participant through which you own your interest, to exercise any rights and obligations of a holder under the Conditions of Issue. See “*Book-Entry, Delivery and Form*”.

USE OF PROCEEDS

We estimate that the gross proceeds from the Offering will be € . We will use the proceeds from the Offering, together with cash-in-hand and bank balances, (i) to redeem in full the €150,000,000 outstanding principal amount of the Floating Rate Notes on June , 2019 (the “**Floating Rate Notes Redemption Date**”) and (ii) to pay costs, fees and expenses related to the Refinancing.

The following table illustrates the estimated sources and uses of funds. The actual amounts set forth in the table and in the accompanying footnotes are subject to adjustment and may differ at the time of the consummation of the Refinancing depending on several factors, including differences from our estimate of costs, fees and expenses.

You should read “*Summary—The Refinancing*”, “*Capitalization*”, “*Management Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Results of Operations—Expansion Projects and Investment Program*” and “*Description of Certain Financing Arrangements*” for a more detailed description of the expected use of proceeds and our capitalization and financing arrangements following the completion of the Refinancing.

<u>Sources</u>	<u>in € millions</u>	<u>Uses</u>	<u>in € millions</u>
Additional Notes offered hereby ⁽¹⁾ . .	150.0	Redemption of the Floating Rate Notes ⁽²⁾	150.0
Cash-in-hand, bank balances	3.0	Estimated fees and expenses ⁽³⁾	3.0
Total Sources	<u>153.0</u>	Total Uses	<u>153.0</u>

(1) Reflects the expected gross proceeds from the issuance of the Additional Notes assuming we issue the Additional Notes at an issue price of 100%. The gross proceeds of the Offering exclude payment by purchasers of the Additional Notes of an amount equal to the accrued interest on the Additional Notes from March 31, 2019 to, but not including, the issue date of the Additional Notes.

(2) Reflects the €150.0 million in outstanding principal amount of Floating Rate Notes that will be redeemed on the Floating Rate Notes Redemption Date.

(3) Reflects our estimate of fees and expenses we will incur in connection with the Refinancing, including underwriting fees and commissions, commitment, placement, financial advisory and other transaction costs and professional fees, but excluding accrued and unpaid interest on the Floating Rate Notes. Actual costs, fees and expenses may differ.

CAPITALIZATION

The following table sets forth our consolidated cash-in-hand, bank balances and our capitalization as of March 31, 2019, on a historical basis and as adjusted to give effect to the Offering and the application of the proceeds from the issuance of the Notes, as described under “*Use of Proceeds*” as if they had occurred on March 31, 2019.

The historical consolidated financial information has been derived from the 2019 Unaudited Three Months Financial Statements included elsewhere in this offering memorandum. All data in the table below represent the carrying amounts except for the Notes offered hereby. The adjusted information below is illustrative only and does not purport to be indicative of our capitalization following the completion of the Refinancing.

You should read this table in conjunction with “*Summary—The Refinancing*”, “*Use of Proceeds*”, “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*”, “*Description of Certain Financing Arrangements*”, “*Description of the Notes*” and the historical financial statements and notes thereto included elsewhere in this offering memorandum. Except as set forth below, there have been no other material changes to our capitalization since March 31, 2019.

	As of March 31, 2019		
	Actual	Adjustments (unaudited) (€ in millions)	As Adjusted
Cash-in-hand, bank balances⁽¹⁾⁽²⁾⁽³⁾	136.0	(3.0)	133.0
Super Senior Revolving Credit Facility ⁽⁴⁾	—	—	—
Existing Senior Secured Commerzbank Facilities ⁽⁵⁾	30.0	—	30.0
Existing Senior Secured GBP Facility ⁽⁶⁾	3.5	—	3.5
Existing Senior Secured IKB Facilities ⁽⁷⁾	37.2	—	37.2
Existing Senior Secured PLN Facilities ⁽⁸⁾	31.4	—	31.4
Existing Notes ⁽⁹⁾	450.0	—	450.0
Floating Rate Notes ⁽⁹⁾	150.0	(150.0)	0
Notes offered hereby ⁽¹⁰⁾	—	150.0	150.0
Third party debt⁽²⁾⁽³⁾	702.0	0.0	702.0
Total equity (carrying amount)⁽¹¹⁾⁽¹²⁾	349.5	(3.0)	346.5
Total capitalization⁽²⁾⁽³⁾⁽¹²⁾	1,051.5	(3.0)	1,048.5

- (1) As adjusted amount reflects the amount of cash-in-hand, bank balances assuming (i) the completion of the offering of the Additional Notes at an issue price of 100% and (ii) the completion of the Refinancing had occurred on March 31, 2019. Cash-in-hand, bank balances at the time of the completion of the Offering on the actual issue date of the Additional Notes and upon completion of the Refinancing will be different. We had cash-in-hand, bank balances of €152.3 million as of April 30, 2019. As adjusted amount also does not reflect (i) €20.1 million of total dividend payments by the Issuer on May 2, 2019 or (ii) payment by the purchasers of the Additional Notes of an amount equal to the accrued interest on the Additional Notes from March 31, 2019 to, but not including, the issue date of the Additional Notes.
- (2) As adjusted amounts do not reflect any drawings under Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities or the Existing Senior Secured HSBC Facility. Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities and the Existing Senior Secured HSBC Facility will remain undrawn on the date of this offering memorandum. We may utilize the €25.0 million Facility C under the Existing Senior Secured IKB Facilities, the €25.0 million Existing Senior Secured SaarLB Facility and the €45.0 million Facility A under the Existing Senior Secured Commerzbank Facilities until August 10, 2019. For more details about the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured Commerzbank Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured IKB Facilities*”, “*Description of Certain Financing Arrangements—Existing Senior Secured SaarLB Facility*” and “*Description of Certain Financing Arrangements—Existing Senior Secured Commerzbank Facilities*”. We may utilize the €30.0 million Existing Senior Secured HSBC Facility until one month before December 31, 2023. For more details about the Existing Senior Secured HSBC Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured HSBC Facility*”.
- (3) As adjusted amounts also do not reflect any drawings under the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities or the New Senior Secured SaarLB Facility. The utilization of the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the Additional Notes. As a result, the New Senior Secured Facilities will remain undrawn on the issue date of the Additional Notes. We may utilize the €30 million, €30 million and €15 million under the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility until June, 2021, May, 2020 and May, 2020, respectively. For more details about the New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank*”.

Facility”, “Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities” and “Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility”.

- (4) Our Super Senior Revolving Credit Facility provides for up to €50.0 million of committed credit. The Super Senior Revolving Credit Facility will remain undrawn on the issue date of the Additional Notes. For more details about the Super Senior Revolving Credit Facility, see “Description of Certain Financing Arrangements—Super Senior Revolving Credit Facility”.
- (5) As of March 31, 2019, €15.0 million and €15.0 million, respectively, in borrowings under Facility B and Facility C of the Existing Senior Secured Commerzbank Facilities remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under Facility B and Facility C of the Existing Senior Secured Commerzbank Facilities. For more details about the Existing Senior Secured Commerzbank Facilities, including scheduled repayments on the Existing Senior Secured Commerzbank Facilities, see “Description of Certain Financing Arrangements—Existing Senior Secured Commerzbank Facilities”.
- (6) As of March 31, 2019, GBP3 million (carrying amount at March 31, 2019: €3.5 million, calculated based on an exchange rate of €1.00 = GBP 0.8583, which was the exchange rate of the British pound against the euro reported by the European Central Bank on March 31, 2019) in borrowings under the Existing Senior Secured GBP Facility were outstanding. As of the date of this offering memorandum, we have fully utilized the Existing Senior Secured GBP Facility and GBP70 million of borrowings were therefore outstanding under the Existing Senior Secured GBP Facility. For more details about the Existing Senior Secured GBP Facility, including scheduled repayments on the Existing Senior Secured GBP Facility, see “Description of Certain Financing Arrangements—Existing Senior Secured GBP Facility”.
- (7) As of March 31, 2019, €7.2 million and €30.0 million, respectively, in borrowings under Facility A and Facility B of the Existing Senior Secured IKB Facilities remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under Facility A and Facility B of the Existing Senior Secured IKB Facilities. For more details about the Existing Senior Secured IKB Facilities, including scheduled repayments on the Existing Senior Secured IKB Facilities, see “Description of Certain Financing Arrangements—Existing Senior Secured IKB Facilities”.
- (8) As of March 31, 2019, PLN 58.9 million (carrying amount at March 31, 2019: €13.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on March 31, 2019) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 76.0 million (carrying amount at March 31, 2019: €17.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility. The adjusted figures do not reflect PLN 5.4 million and PLN 4.0 million, respectively, in scheduled repayments under the 2015 Senior Secured PLN Facility and the 2016 Senior Secured PLN Facility we will be required to make on June 30, 2019. For more details about the Existing Senior Secured PLN Facilities, including scheduled repayments on the Existing Senior Secured PLN Facilities, see “Description of Certain Financing Arrangements—Existing Senior Secured PLN Facilities”.
- (9) Represents the aggregate principal amount of the Existing Notes and the Floating Rate Notes, respectively.
- (10) Represents the €150 million of aggregate principal amount of Additional Notes to be issued in the Offering.
- (11) The adjusted figure includes expenses of approximately €3.0 million, reflecting estimated costs, fees and expenses associated with the Offering. We will accrue any premium at which we may issue the Additional Notes as deferred income in the balance sheet, which does not affect equity.
- (12) The adjusted figures do not reflect possible tax effects.

SELECTED FINANCIAL AND OTHER INFORMATION

The financial information contained in the following tables is derived from the audited consolidated financial statements of the Issuer as of and for the fiscal years ended December 31, 2016, 2017 and 2018, from the unaudited consolidated interim financial statements of the Issuer as of and for the three-month period ended March 31, 2019 as well as from the accounting records and other internal documents of the Issuer. The results of operations for prior periods are not necessarily indicative of the results to be expected for the full year or any future period.

In addition, we present certain unaudited consolidated financial information for the 12 months ended March 31, 2019. This information was derived by adding our consolidated financial information for the year ended March 31, 2018 derived from our audited consolidated financial statements to our unaudited consolidated financial information for the three months ended March 31, 2019 and subtracting our unaudited consolidated financial information for the three months ended March 31, 2018.

The historical consolidated financial statements and the other historical consolidated financial information presented below have been prepared on the basis of German GAAP, which differs in certain significant respects from IFRS. For a discussion of significant differences between German GAAP and IFRS, see “*Management’s Discussion and Analysis of Financial Condition and Results of Operations—Summary of Significant Differences between German GAAP and IFRS*”.

In the following tables, we also present certain non-GAAP measures and ratios, including total output, gross profit, EBITDA, EBITDA margin, consolidated net income/(net loss) before income tax, trade working capital, free cash flow, net cash flow, cash flow available for debt service, adjusted cash flow available for debt service, cash flow from change in trade working capital and cash flow from change in total working capital, capital expenditures, total financial debt as well as net financial debt and other *pro forma* data that are not required by, or presented in accordance with, German GAAP. Our management believes that the presentation of these non-GAAP measures is helpful to investors because these and other similar measures are widely used by certain investors, security analysts and other interested parties as supplemental measures of performance and liquidity. However, you should not construe these non-GAAP measures as an alternative to net income determined in accordance with German GAAP or to cash flows from operating activities, investing activities or financing activities. In addition, the non-GAAP measures and ratios, including total output, gross profit, EBITDA, EBITDA margin, consolidated net income/(net loss) before income tax, trade working capital, free cash flow, net cash flow, cash flow available for debt service, adjusted cash flow available for debt service, cash flow from change in trade working capital and cash flow from change in total working capital, capital expenditures, total financial debt as well as net financial debt and other *pro forma* data presented by us may not be comparable to similarly titled measures used by other companies.

You should read the information set forth below in conjunction with the sections “*Presentation of Financial Information*”, “*Use of Proceeds*”, “*Capitalization*”, “*Summary Consolidated Financial and Other Information*” and “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” and the financial statements and the accompanying notes included elsewhere in this offering memorandum.

	Year ended December 31,			Three months ended March 31,		Twelve months ended March 31,
	2016	2017	2018	2018	2019	2019
	(audited, unless otherwise stated)			(unaudited)		
	(€ in thousands)					
INCOME STATEMENT AND OTHER DATA						
Sales	733,228	804,256	966,118	243,786	245,356	967,688
Increase/(decrease) in finished goods and work in process	(6,554)	10,298	23,361	(3,608)	(2,573)	24,396
Other operating income	14,713	17,603	17,725	1,573	3,335	19,487
Other own work capitalized	1,116	2,637	7,573	1,521	3,077	9,130
Total output (unaudited) ⁽¹⁾	742,502	834,795	1,014,778	243,273	249,196	1,020,701
Cost of materials	(371,550)	(430,481)	(493,641)	(119,321)	(117,791)	(492,112)
Gross profit (unaudited) ⁽²⁾	370,952	404,314	521,137	123,952	131,405	528,589
Personnel expenses	(61,423)	(68,326)	(78,925)	(18,367)	(21,352)	(81,910)
Other operating expenses	(154,293)	(160,425)	(168,800)	(42,355)	(42,501)	(168,946)
Other taxes	(1,479)	(1,449)	(1,453)	(350)	(328)	(1,431)
EBITDA (unaudited) ⁽³⁾	154,679	180,354	275,479	69,780	67,289	272,988
Amortization and depreciation of fixed intangible and tangible assets	(47,372)	(50,032)	(58,153)	(12,293)	(13,839)	(59,699)
Extraordinary net income/(loss)	—	—	—	—	—	—
Other interest and similar income	144	65	86	10	19	95
Interest and similar expenses	(25,334)	(23,678)	(32,062)	(6,007)	(6,089)	(32,144)
Consolidated net income/(net loss) before income tax (unaudited) ⁽⁴⁾	81,197	100,469	181,830	44,591	47,314	184,554
Taxes on income	(19,793)	(28,058)	(54,865)	(12,310)	(13,903)	(56,457)
Consolidated net income/(loss) for the period	61,404	72,412	126,965	32,280	33,411	128,096

	As of December 31,			As of March 31,
	2016	2017	2018	2019
	(audited, unless otherwise stated)			(unaudited)
	(€ in thousands)			(€ in thousands)
BALANCE SHEET AND OTHER DATA				
Cash-in-hand, bank balances	37,370	117,946	148,431	135,993
Trade working capital (unaudited) ⁽⁵⁾	75,486	114,199	169,481	181,800
Fixed assets	639,855	640,980	742,184	807,648
Total assets	836,815	946,356	1,147,504	1,223,949
Total liabilities (unaudited)⁽⁶⁾	577,206	669,042	831,986	873,660
Total financial debt (unaudited)⁽⁷⁾	455,327	537,519	674,033	702,007
Net financial debt (unaudited)⁽⁸⁾	417,957	419,572	525,602	566,014

	Year ended December 31,			Three months ended March 31,		Twelve months ended March 31,
	2016	2017	2018	2018	2019	2019
	(audited, unless otherwise stated)			(unaudited)		
	(€ in thousands)					
CASH FLOW AND OTHER DATA						
Cash flows from operating activities	152,564	122,706	197,214	31,220	32,075	198,069
Cash flows from investing activities	(23,201)	(47,735)	(158,949)	(18,714)	(70,907)	(211,142)
Free cash flow (unaudited)⁽⁹⁾	129,363	74,971	38,265	12,506	(38,832)	(13,073)
Cash flows from financing activities	(110,257)	3,818	(6,267)	423,267	25,875	(403,659)
Net cash flow⁽¹⁰⁾	19,106	78,789	31,998	435,773	(12,957)	(416,732)
Effect on cash funds of exchange rate movements	(2,498)	1,787	(1,513)	(319)	519	(675)
Adjusted cash flow available for debt service (unaudited)⁽¹¹⁾	140,267	60,846	10,735	6,761	(42,810)	(38,836)

- (1) Total output (not a German GAAP measure) is calculated as the sum of sales, increase/(decrease) in finished goods and work in process, other operating income and other own work capitalized.
- (2) Gross profit (not a German GAAP measure) is calculated by deducting cost of materials from total output.
- (3) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. In response to changes to German GAAP, which have resulted in certain changes to the presentation of our financial information for the fiscal year ended December 31, 2016 in the table above, we have adjusted the way we calculate EBITDA to ensure consistency and comparability with our EBITDA reported for prior periods. While our reported EBITDA therefore excludes the impact of any “extraordinary” items for all periods presented, it has not yet been adjusted for “items of exceptional size or incidence”, which is a new concept under German GAAP introduced by the BilRUG. Excluding the negative effect of €16.0 million in “items of exceptional size or incidence” (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million.
- (4) Consolidated net income/(net loss) before income tax (not a German GAAP measure) is calculated by adding taxes on income back to consolidated net income/(net loss) for the period.
- (5) We define trade working capital (not a German GAAP measure) as inventories plus trade receivables, minus trade payables.

Our calculation of trade working capital can be reconciled to the balance sheet as follows:

	As of December 31,			As of March 31,
	2016	2017	2018	2019
	(audited, unless otherwise stated)			(unaudited)
	(€ in thousands)			(€ in thousands)
TRADE WORKING CAPITAL				
Inventories	73,944	86,864	110,512	108,001
Trade receivables	59,562	78,859	108,756	128,229
Trade payables	(58,020)	(51,524)	(49,787)	(54,430)
Trade working capital (unaudited)	75,486	114,199	169,481	181,800

- (6) Total liabilities is calculated as investment grants for fixed assets, plus provisions, plus liabilities, plus deferred income.
- (7) Total financial debt (not a German GAAP measure) means bank loans plus finance leases plus bonds, including the Existing Notes.
- (8) Net financial debt (not a German GAAP measure) is calculated by deducting cash-in-hand, bank balances from total financial debt.
- (9) Free cash flow (not a German GAAP measure) is defined as cash flows from operating activities plus cash flows from investing activities.
- (10) Net cash flow (not a German GAAP measure) is defined as net change in cash funds as presented in the Consolidated Cash Flow Statement.
- (11) We present adjusted cash flow available for debt service (not a German GAAP measure) as a measure of normalized free cash flow which can be used to service debt. We calculate adjusted cash flow available for debt service as cash flow available for debt service adjusted for the effects of extraordinary net income/(loss) as well as for the €16.0 million in “items of exceptional size or

incidence” (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016.

Our calculations of adjusted cash flow available for debt service is as follows:

	Year ended December 31,			Three months ended March 31,		Twelve months ended March 31,
	2016	2017	2018	2018	2019	2019
	(audited, unless otherwise stated) (€ in thousands)			(unaudited) (€ in thousands)		
ADJUSTED CASH FLOW AVAILABLE FOR DEBT SERVICE						
EBITDA (unaudited)	154,679	180,354	275,479	69,780	67,289	272,988
Cash flow from change in total working capital (unaudited) ^(a)	13,032	(42,487)	(50,100)	(32,331)	(26,161)	(43,930)
—thereof cash flow from change in trade working capital (unaudited)	24,348	(38,713)	(55,282)	(28,531)	(12,319)	(39,070)
Taxes on income	(19,793)	(28,058)	(54,865)	(12,310)	(13,903)	(56,457)
Extraordinary net income/(loss)	(921)	(6,240)	(3,519)	(6,900)	(65)	(3,316)
Cash flows from investing activities	(23,201)	(47,735)	(158,949)	(18,714)	(70,907)	(211,142)
Other ^(b)	(496)	(1,228)	(830)	336	872	(294)
Cash flow available for debt service (unaudited) ^(c) .	123,300	54,607	7,215	(139)	(42,875)	(35,521)
adding back extraordinary net income/(loss)	(921)	(6,240)	(3,519)	(6,900)	(65)	(3,316)
adding back items of exceptional size or incidence .	16,046	—	—	—	—	—
—thereof additional costs as expenditure of exceptional size or incidence	13,914	—	—	—	—	—
—thereof lost sales	2,132	—	—	—	—	—
Adjusted cash flow available for debt service (unaudited)	140,267	60,846	10,735	6,761	(42,810)	(38,836)

(a) Cash flow from change in total working capital (not a German GAAP measure) is calculated as (increase)/decrease in inventories, trade receivables and other assets plus increase/ (decrease) in trade payables and other liabilities as presented in the Consolidated Cash Flow Statement.

(b) Other includes other non-cash expense/(income).

(c) Cash flow available for debt service (not a German GAAP measure) means EBITDA adjusted for the effects of changes in total working capital, extraordinary income/(expense), cash flows from investing activities and other, minus taxes on income.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

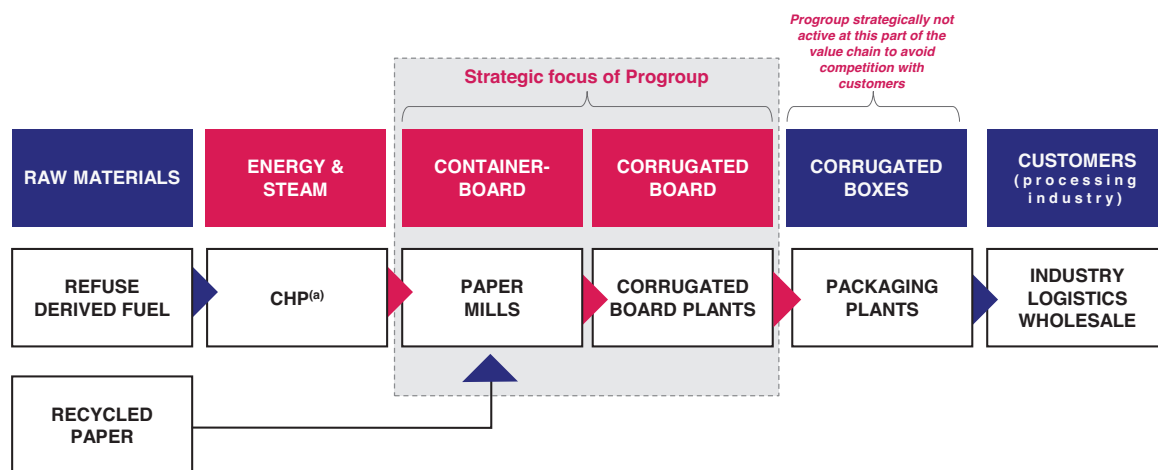
*The following is a discussion of the results of operations and financial condition of the Issuer as of and for the financial years ended December 31, 2016, 2017 and 2018. The financial information contained in the following section is derived from the audited consolidated financial statements of the Issuer as of and for the fiscal years ended December 31, 2016, 2017 and 2018, from the unaudited condensed consolidated interim financial statements and notes thereto of the Issuer as of and for the three-month period ended March 31, 2019 (“**2019 Unaudited Three Months Condensed Consolidated Financial Statements**”) as well as from the accounting records and other internal documents of the Issuer.*

Our consolidated financial statements included in this offering memorandum have been prepared in accordance with German GAAP, which differs in certain significant respects from IFRS. For a discussion of significant differences between German GAAP and IFRS, see “—Summary of Significant Differences between German GAAP and IFRS”. In this offering memorandum, the term “financial statements” refers to the audited consolidated financial statements and the notes thereto of the Issuer and its subsidiaries as of and for the fiscal years ended December 31, 2016, 2017 and 2018 and the 2019 Unaudited Three Months Condensed Consolidated Statements. The audit reports of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (formerly PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft) with respect to the consolidated financial statements as of and for the fiscal years ended December 31, 2016, 2017 and 2018 are included in this offering memorandum beginning on page F-12. Furthermore, we have included in this offering memorandum the 2019 Unaudited Three Months Condensed Consolidated Financial Statements which include comparative figures for the three-month period ended March 31, 2018.

The following discussion should be read in conjunction with “Selected Financial and Other Information” and our audited consolidated financial statements contained elsewhere in this offering memorandum. In addition, some of the information contained in this discussion, including information with respect to our plans and strategies for our business and our plans for future capital expenditures, contain forward-looking statements that involve risks and uncertainties. You should read “Forward-Looking Statements” for a discussion of the risks related to those statements. You should also read “Business” and “Risk Factors” for more information about us, including a discussion of certain factors that may adversely affect our business, results of operations and financial condition.

OVERVIEW

We are a leading, family-owned producer and supplier of containerboard and corrugated board in Central Europe and are headquartered in Landau, Germany. According to Vision Hunters, we are the third largest producer of corrugated board in Europe (by production capacity) through our corrugated board business (“**Board**”) and the sixth largest producer of recycled containerboard in Europe (by production capacity) through our containerboard business (“**Paper**”). We focus on the highly efficient production and processing of standardized grades and customized small batch series of corrugated board sheets for our mostly family-owned box manufacturing customers. In this core market segment, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters. We believe we differentiate ourselves from other market participants (*i.e.*, fully integrated paper and packaging producers) through our strategic focus on those elements of the value chain that bring added-value to our customers in the packaging industry, *i.e.* the automated and integrated production of containerboard and corrugated board. Our customers serve various end markets, including industrial/manufacturing, consumer durables, processed foods, non-food manufactured consumer goods and fresh food. Unlike many fully integrated market players, we do not produce boxes and therefore do not compete with our box manufacturing customers but instead focus solely on the production of containerboard and corrugated board.



(a) Combined heat and power plant

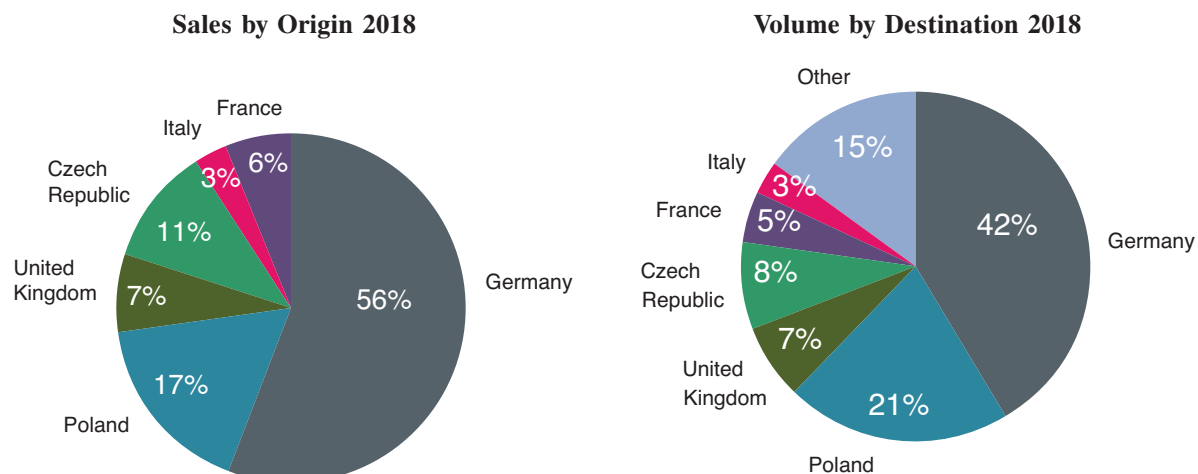
Through our large scale and highly flexible production, built up primarily via a greenfield approach, we are able to realize significant economies of scale. Since we commenced operations in 1992, we have carefully selected the locations of our production sites and have grown organically by pursuing primarily a greenfield strategy to create an optimal geographic set-up of our production sites across the markets in which we operate. As a result, we benefit from a well-invested asset base and production sites with high technological standards, resulting in a relatively low cost base compared to many of our competitors and relatively low requirements for additional capital expenditures in the short- to medium-term. Given the high technological standards of our production facilities, we believe we are well-positioned to benefit from major growth trends in our industry, such as (i) increasing demand for light-weight packaging, (ii) the increasing importance of small-size packaging due to the growing importance of e-commerce, and (iii) the general trend towards a more efficient and sustainable use of raw materials and energy, which can help reduce costs, CO₂ emissions and fresh water consumption.

Our core business comprises Paper and Board. The focus of Paper's operations is highly flexible containerboard production using almost exclusively recycled paper, with high output volumes to increase cost efficiency and short delivery times. In 2016, 2017, 2018 and the first three months of 2019, containerboard produced by Paper accounted for most of the containerboard sourcing requirements of our corrugated board production within Board. We believe that a high degree of vertical integration and the ability of Board to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. In addition, our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options.

Paper manufactures containerboard at our two paper mills in Germany, with an envisaged total annual production capacity of approximately 1,100,000 tons of containerboard. Our two existing paper machines, PM1 in Burg and PM2 in Eisenhüttenstadt, have complementary production layouts which allow us to produce brown containerboard with grammages between 60-230g/m² using almost exclusively recycled paper. This, in turn, allows us to internally source consistently high-quality containerboard with the appropriate widths for Board's ten existing corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom, with a total annual production capacity of approximately 1,440,000 tons of corrugated board, including our latest corrugated board "mega plant" (PW12) at Ellesmere Port, United Kingdom. Our historic greenfield location strategy ensures close customer proximity and high production flexibility. Effective as of midnight on December 31, 2015, we further acquired Progroup Power 1 GmbH, the combined heat and power plant (the "CHP") adjacent to our paper mill in Eisenhüttenstadt and certain related assets (the "CHP Acquisition"). As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves ("Power").

In 2018, we sold approximately 1,151,000 tons of corrugated board and approximately 176,000 tons of containerboard to external customers across Europe, resulting in external corrugated board and containerboard sales, respectively, of €840.0 million (86.9% of total sales) and €84.5 million (8.7% of total sales). Paper's total sales in 2018 include €17.9 million (1.9% of total sales) in revenues from the sale of electricity and revenues from the incineration of refuse-derived fuel resulting from the integration of the CHP as well as €9.7 million (1.0% of total sales) in sales from passing purchased fuel costs to Sales and

Solutions GmbH. Total external sales by Board and Paper in 2018 (including sales other than corrugated board or containerboard sales, respectively) amounted to €840.8 million (87.0% of total sales) and €112.9 million (11.7% of total sales). Our total sales and EBITDA in 2018 amounted to €966.1 million and €275.5 million, respectively. Sales in Germany (origin), our core market, accounted for 55.8% of total sales and 42.0% of sales by volume in 2018.



Primarily to support our core business, Paper and Board, we have established our own logistics operations, including a fleet of currently 59 trucks (“**Logistics**”). Most of the remaining €12.4 million in sales (1.3% of total sales) in 2018 were generated by Logistics.

Founded in 1991, we are indirectly majority-owned by Jürgen Heindl, our founder and chief executive officer.

KEY FACTORS AFFECTING OUR RESULTS OF OPERATIONS

We principally generate revenue through the sale of containerboard and corrugated board. We sell our corrugated board only to third-party customers in the packaging industry. Our mills primarily supply the containerboard we produce to Group-owned corrugated board plants; however, only third-party sales are reflected in our revenue. We also sell, to a lesser degree, containerboard to third parties. In 2018, corrugated board sales and external containerboard sales accounted for 86.9% and 8.7%, respectively, of our total sales.

Key factors that affect our operating results are:

- changes in demand and industry production capacity;
- the cost of recycled paper, other raw materials and other costs of manufacturing;
- changes in energy costs, both as a result of market price movements and regulatory changes, including energy tax refund schemes and other statutory accommodations for energy intensive industries;
- changes in freight and transportation costs;
- our ability to pass on price increases in raw materials and other input costs into the prices we charge for third-party sales of containerboard and corrugated board;
- the performance and the utilization of our production sites as well as the performance of certain facilities owned and operated by us, such as the CHP;
- the level of vertical integration between Paper and Board;
- currency exchange rate movements;
- our ability to achieve cost savings; and
- our ability to successfully complete ongoing and future expansion projects.

Because many of these factors are beyond our control and certain of these factors have historically been volatile, past performance is not necessarily indicative of future performance and it is difficult to predict future performance with any degree of certainty.

Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs

Fluctuations in Demand and Industry Capacity

Demand for our products is generally driven by the level of economic growth and activity. Increased levels of economic growth and activity typically result in higher per capita use of packaging materials, both with respect to transportation of goods and consumer presentation. This increase in the use of packaging materials (including paper-based packaging materials), in turn, results in an increase in the demand for our recycled containerboard and corrugated board products. Because the markets for containerboard and corrugated board products in the developed economies in which we primarily operate are generally mature, historically there has been a close correlation between general economic growth and demand for packaging products such as corrugated containers and, therefore, for their component materials such as containerboard and corrugated board. Less developed economies, including those in Eastern Europe, have a lower per capita consumption of packaging materials and therefore also of containerboard and corrugated board products but also, as a result, have the potential for higher growth as per capita consumption of packaging materials increases towards levels of developed economies.

To a lesser degree, demand for corrugated containers and their component materials, including our containerboard and corrugated board, is affected by changes in their market prices. Significant increases in the price of corrugated containers have, on occasion, resulted in decreased demand as end-customers elected to purchase substitute products, such as reusable plastic containers, wooden crates or shrink-wrap.

Historically, prices for containerboard and corrugated board have tended to be cyclical. This cyclicity has resulted from significant imbalances in supply and demand for containerboard. On the one hand, containerboard production capacity cannot be readily adapted to reflect changing market conditions due to the high capital intensity of paper production facilities and the long lead time between the planning and construction of a new containerboard mill. On the other hand, significant containerboard and corrugated board price reductions and inventory growth have resulted when capacity has exceeded demand. In the past, many leading paper manufacturers have reacted to reduced demand by taking downtime and by rationalizing high-cost and inefficient capacity.

Fluctuations in Raw Material Costs

Because the primary raw material for the production of recycled containerboard is recycled paper, the price of which tends to fluctuate, our two recycled containerboard mills (*i.e.*, our paper machines PM1 and PM2) can experience temporary increases and decreases in profits. Except for the period between 2009 and 2010 following the financial and economic crisis, our paper mill in Burg (PM1) has historically generated a relatively stable margin, in part because we primarily sell our containerboard to our own corrugated board plants. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Board have increased to approximately 82% (or 93%, if we include containerboard sales to swap partners) of the total sales, by volume, of Paper in 2018. With the fast and successful ramp-up of production at our corrugated board production site (PW10) in Trzcinica, Poland, we had already accomplished one of our long-standing strategic goals and had already been operating at the top end of our long-term target corridor with regard to the level of integration between Paper and Board. We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019,, *i.e.* we expect that the recycled containerboard sourcing requirements of our corrugated board production within Board will significantly exceed the internal supply capacities of Paper. As we have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany (with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020) and plan to establish up to three further corrugated board production sites in Central Europe between 2019 and 2021 (including a further corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021), we expect to successively increase this net short position with regard to containerboard even further at least in the short-term to mid-term. We therefore currently do not expect

the volume of our external containerboard sales to significantly increase again unless and until we complete our proposed further paper machine project (PM3). For more details on our expansion projects and investment program, see also “*Expansion Projects and Investment Program*” below.

Our overall profitability is also affected by the length of time it takes us to translate price increases in raw materials and other input costs into prices we charge for third-party sales of containerboard and corrugated board. To the extent our containerboard is sold internally, our profitability will only be affected by the ability to recover any price increases from third-party sales of corrugated board to our third party customers in the packaging industry. Furthermore, to the extent that selling prices fall, if we are unable to generate cost savings through producing products more efficiently or lower our fixed costs, our results may be negatively affected.

An important driver of recycled paper prices is the balance of supply and demand for paper products in general as well as collection rates of recycled paper. When the price of recycled paper increases, containerboard manufacturers attempt to raise their prices to preserve profit margins, which generally narrow as a result of higher raw material costs. It typically takes approximately two to three months for mills to pass on their raw material price increases to corrugated board manufacturers. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for these manufacturers, including us, to pass these increases on to their customers.

In a down cycle, as recycled paper prices fall, manufacturers of paper and paper-based packaging products (including manufacturers of containerboard and corrugated board) attempt to maintain prices. In the past, we have typically been able to maintain our prices for two to three months in such a down cycle. As a result, the effect of price fluctuations on our mills and corrugated board operations varies, depending on the relevant point in the industry cycle. During periods of rising containerboard prices, our profitability can therefore be adversely affected. Conversely, during periods of declining containerboard prices, our profitability can be positively affected.

However, our ability to pass the costs of our raw materials and other input costs on to our packaging customers depends on a number of other factors, including the supply and demand balance for containerboard and corrugated board in a particular region and the ability of our customers to maintain or increase prices with their own customers. We generate almost all of our sales through purchase orders from our customers based on our price lists which we adjust in response to market price movements and only have very few contracts with our customers which provide minimum purchase obligations and/or pricing clauses that would allow us to automatically pass increased costs on to our customers. As a result of these factors, there can be no guarantee that the price of recycled paper and the prices for our containerboard and corrugated board products will always be closely correlated. Any extended mismatch between the price of recycled paper and the market prices for our products could have a significant effect on our margins and overall profitability.

For example, between 2009 and 2010, our results of operations and financial condition deteriorated. There were two main reasons for this deterioration. First, the global financial and economic crisis led to a significant drop in the price of recycled paper in the second half of 2008, followed by a significant decrease in the demand for our products and a corresponding decrease in the market prices for both containerboard and corrugated board. Following the significant drop in the prices for recycled paper in the second half of 2008, the prices for recycled paper started to recover in the first half of 2009, notwithstanding the continuing economic weakness and contrary to historic trends. This, in turn, led to a compression of our margins during the third quarter of 2009 when the sales prices for some of our finished products were insufficient to cover our variable input costs. As a result, we incurred significant losses and a few of our competitors were forced to close or mothball less efficient production facilities, which led at least temporarily to a drop in market-wide containerboard and corrugated board capacity. Our margins only returned to more sustainable levels towards the end of 2010, following multiple price increases for recycled paper, containerboard and corrugated board. Conversely, due to a combination of (i) a higher level of integration between our containerboard and corrugated board businesses, (ii) positive effects from measures we took as part of our Continuous Improvement Program and the immediate measures we took at the time in response to the deterioration of our results of operations and financial condition, and (iii) sustained economic growth in Germany in 2014 and 2015, we were able to increase the average selling price for both our containerboard and corrugated board products in 2014 and 2015, while the price of recycled paper generally remained stable throughout 2014 and only moderately increased in the second and third quarters of 2015, which had a significant positive impact on our margins and general profitability.

During the course of 2016, corrugated board and containerboard prices slowly and steadily decreased from 2015 price levels. At the same time prices for recycled paper increased throughout the first three quarters of 2016, before decreasing slightly in the fourth quarter of 2016. As a result, following a strong improvement in our operating results in 2014 and 2015, we experienced a leveling of our operating results in 2016.

Due to strong demand, especially from Asia, prices for recycled paper were significantly higher during 2017 compared to 2016, especially during the first half of 2017. The average price per ton for recycled paper grades we purchased was approximately €150 during 2017, compared to €130 during 2016. During the third quarter of 2017, however, prices for recycled paper started to gradually decline again, a trend which continued through the end of 2017, in part as a result of policy changes and stricter import controls in China, which resulted in decreasing recycled paper exports to China. During the fourth quarter of 2017, the average price per ton for recycled paper grades we purchased was approximately €142 per ton, compared to €136 per ton in the fourth quarter of 2016. Partly as a result of the increases in recycled paper prices, prices for recycled containerboard in Europe also steadily increased again during the course of 2017. The average prices for our containerboard increased from €376 per ton (for the overall product portfolio mix sold externally) during 2016 to €413 per ton during 2017. During the course of 2017, we were able to achieve aggregate price increases for our containerboard of €90-100 per ton in total, which are not fully reflected in the average sales figures. On the other hand, the average price per ton for the containerboard we were required to purchase externally also increased in 2017. Partly as a result of the increases in recycled containerboard prices, corrugated board prices also increased again during 2017, following the increases in containerboard prices with a slight time lag. During the course of 2017, the average prices for our corrugated board increased from approximately €634 per ton during 2016 to €657 per ton during 2017. During the course of 2017, we were able to achieve aggregate price increases for our corrugated board products of €90-100 per ton in total, which are not fully reflected in the average sales figures.

Due to decreases in demand from outside Europe, resource price levels for recycled paper declined in the first and second quarter of 2018. Since then, prices for recycled paper remained at a favorable level for the rest of the year. The average price per ton for recycled paper grades we purchased was approximately €108 during 2018, compared to €150 during 2017. In the first three months of 2019, the purchasing price for recycled paper remained at an almost stable low price point. On the other hand, prices for both corrugated board and containerboard increased in the first quarter of 2018, remaining elevated for the remainder of the year but with a slight trend towards normalisation in the fourth quarter. The average prices for our containerboard increased from €413 per ton (for the overall product portfolio mix sold externally) during 2017 to €480 per ton during 2018, while the average price per ton for the containerboard we were required to purchase externally also increased in 2018. After a continuously upward trend in 2017 and the first quarter of 2018, prices for recycled containerboard were primarily stable in the second and third quarter of 2018. In the fourth quarter of 2018, prices for recycled containerboard started to decline. This development usually follows the price development of recycled paper. In 2018, we observed an opposite development since purchasing prices for recycled paper declined in the first and second quarter of 2018 and remained at a low level for the rest of the year 2018. Corrugated board prices increased again during 2018, following the increases in containerboard prices with a slight time lag. During the course of 2018, the average prices for our corrugated board increased 11.1% from approximately €657 per ton during 2017 to €730 per ton during 2018. Following the containerboard market price development, prices for corrugated board increased since March 2017. In March and April 2018, the earlier containerboard price increase was passed on to the corrugated board customers, which led to a price peak in May and a slightly decreasing trend since the beginning of the third quarter.

During the fourth quarter of 2018 and the first quarter of 2019, both containerboard and corrugated board experienced a considerable price normalization, i.e. prices for both containerboard and corrugated board started to decline. Due to the typical time lags in passing on price developments to customers, we expect this normalization of containerboard and corrugated board price levels to further negatively impact our performance in 2019. In the short-to-mid term, we anticipate further potential downward price adjustments as part of the ongoing normalization of the market conditions, which is likely to have a negative impact on our margins and EBITDA.

Fluctuations in Energy Costs

Another important input for us is energy. Our production processes, in particular the production of containerboard at our two mills, are energy intensive. In 2008, we entered into certain framework and

ancillary agreements with EnBW for the supply of steam to PM2 via the CHP, which reduced our exposure to fluctuations in gas prices. As described in more detail under “—*The CHP Acquisition*” below, effective as of midnight on December 31, 2015, we acquired Progroup Power 1 GmbH from EnBW, the CHP and certain related assets outright. As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves. The completion of the CHP Acquisition constituted a significant milestone in our efforts to optimize our cost structure and allowed us to significantly reduce our energy costs. However, our production processes are nevertheless reliant on third parties for the supply of energy. Market prices for energy, in particular for electricity, oil and natural gas, have historically been volatile and have had a corresponding effect on our production costs. As a result, we have undertaken significant efforts in recent years to decrease our energy consumption and costs throughout our business. For further information, see “*Business—Procurement/Purchasing—Energy*” and “*Business—Sustainability Focus; Research and Development*”.

The key drivers of our energy expenses have been, and will continue to be, fluctuations in the market prices for energy, the performance of the CHP adjacent to our paper mill in Eisenhüttenstadt as well as regulatory decisions. Any extended shutdowns of the CHP may have a negative impact on our results of operations. For example, a longer than scheduled maintenance shutdown of the CHP in the third and fourth quarters of 2016 resulted in €16.0 million in items of exceptional size or incidence, including €13.9 million in exceptional expenses and €2.1 million in lost sales. In addition, in Germany, our core market, energy prices have been strongly impacted by regulatory decisions related to the so-called “*Energiewende*”, a significant shift in government policy following the nuclear accident in Fukushima, Japan in 2011. The energy policy in Germany focuses on promoting the development of renewable energy sources and contemplates the complete cessation of the production of nuclear power by 2021. To mitigate the impact of the resulting significant increases in electricity prices for energy-intensive industries, the German government adopted rules that provide for various businesses, including us, to be reimbursed for certain infrastructure investment surcharges necessary for the implementation of the “*Energiewende*”. However, those rules have not only been subject to challenges in German courts and EU scrutiny as potentially illegal subsidies, but also continue to be the subject of political scrutiny by various interest groups. Although the relevant rules have been modified to address certain of these concerns, there is no guarantee that they will not change again or that we will continue to be able to benefit from current accommodations, reimbursement rules and/or energy tax refund schemes.

Notwithstanding increases in production volumes, our energy costs have declined in recent years for a variety of reasons, including (i) our efforts to reduce energy consumption, in particular with regard to PM2, (ii) falling energy prices, (iii) the optimization of our energy procurement processes, (iv) the optimization of the operating costs of the CHP, in particular with regard to ash disposal, as well as (v) the full utilization of all available accommodations, credits and refunds under applicable energy laws and regulations. For more information about our energy management efforts, see “—*Sustainability Focus; Research and Development*”.

Fluctuations in Freight/Logistics Costs

Our production operations require us to coordinate and monitor complex logistics processes between each step of our internal value chain and our production processes to ensure the efficient flow of materials and products. This includes the shipment of large rolls of containerboard from our two paper mills in Germany to our ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom as well as the shipment of our finished corrugated board to our customers in the packaging industry (box plants). We meet our freight and logistics requirements mainly through the use of external logistics companies and, to a much lesser extent, our own fleet of currently 59 trucks. Due to the relatively large size and weight of our products compared to value, freight and logistics expenses play an important role in our business, and fluctuations in freight prices can have a significant impact on our profitability.

Currency Fluctuations

Given the growing geographic spread of our operations, we are increasingly exposed to currency exchange rate fluctuations. For example, the United Kingdom, the Czech Republic and Poland do not use the euro as their national currency. During the year ended December 31, 2018, 7%, 7% and 16% of our total sales derived from sales in British pounds, Czech koruna and Polish zloty, respectively. In addition, we currently finance several of our foreign subsidiaries, including subsidiaries outside the euro zone, through borrowings in euro.

To reduce (but not eliminate) our exposure to exchange rate fluctuations between the euro and the Polish zloty, Progroup Board sp. z o.o. entered into the 2015 Senior Secured PLN Facility on December 1, 2015 to pay back euro denominated intra-Group loans. To finance the investment in our corrugated board production site (PW10) in Trzcínica, Poland, Progroup Board sp. z o.o. entered into the 2016 Senior Secured PLN Facility on May 31, 2016. As of March 31, 2019, PLN 58.9 million (carrying amount at March 31, 2019: €13.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on March 31, 2019) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 76.0 million (carrying amount at March 31, 2019: €17.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility. For more details about the Existing Senior Secured PLN Facilities, including scheduled repayments on the Existing Senior Secured PLN Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured PLN Facilities*”.

To reduce (but not eliminate) our exposure to exchange rate fluctuations between the euro and the British pound, Progroup Board Ltd. entered into the Existing Senior Secured GBP Facility on December 21, 2017. As of March 31, 2019, the Existing Senior Secured GBP Facility was fully utilized with drawings of GBP3 million (carrying amount at March 31, 2019: €3.5 million, calculated based on an exchange rate of €1.00 = GBP 0.8583, which was the exchange rate of the British pound against the euro reported by the European Central Bank on March 31, 2019). The Existing Senior Secured GBP Facility was fully utilized as of the date of this offering memorandum. For more details about the Existing Senior Secured GBP Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured GBP Facility*”.

Prior to 2015, we were not permitted under our former financing arrangements to hedge for currency risks. As a result, fluctuations in the value of local currencies against the euro have had, and may have in the future, a significant effect on our operations and on our reported results in euro and the comparability of our performance between financial periods can be significantly affected by fluctuations in local currencies against the euro. We have since started to implement foreign currency risk management in order to monitor our foreign currency risk and to enable us to consider taking action if we decide to do so, but there is no assurance that such measures will be effective.

The relative strength or weakness of the U.S. dollar is also important for the European containerboard industry, because exports from the European market influence the balance of supply and demand and the price development of containerboard in Europe. Movements in the U.S. dollar exchange rate may also have an effect on trading, because a strong U.S. dollar tends to make U.S. dollar exports less competitive, while a weak euro may create export opportunities for European containerboard producers, which can reduce containerboard supplies in the European market and promote price stability. Conversely, a weak U.S. dollar over a sustained period has historically resulted in lower (U.S. dollar-denominated) exports by European containerboard manufacturers with a negative (for our business) effect on the supply and demand balance and an immediate effect on the pricing of containerboard in Europe. In addition, a weak U.S. dollar over a sustained period has, in the past, also resulted in lower sales by other European manufacturers who ship products in corrugated packaging, resulting in lower European demand for corrugated packaging and, therefore, for our containerboard and corrugated board. A weak U.S. dollar may also result in additional competition in the European market from U.S. manufacturers that have an incentive to sell more products in Europe, due to increased European demand for the relatively lower-priced U.S. goods over higher-priced European goods.

Significant Synergies through High Degree of Vertical Integration between Paper and Board

In 2018, containerboard produced by Paper accounted for approximately 75% of the containerboard, by volume, used by our corrugated board production within Board. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Board have increased from approximately 62% (or 67%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Paper in 2016 to approximately 82% (or 93%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Paper in 2018. With the fast and successful ramp-up of production at our corrugated board production site (PW10) in Trzcínica, Poland during 2017 and early 2018, we had already accomplished one of our long-standing strategic goals and had already been operating at the top end of our long-term target corridor with regard to the level of integration between Paper and Board. We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the

new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019, i.e. we expect that the recycled containerboard sourcing requirements of our corrugated board production within Board will significantly exceed the internal supply capacities of Paper. As we have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany (with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020) and plan to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023 (including a further corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021), we expect to successively increase this net short position with regard to containerboard even further at least in the short-term. We therefore currently do not expect the volume of our external containerboard to significantly increase again unless and until we complete our proposed further paper machine project (PM3) in the second half of 2020. For more details on our expansion projects and investment program, see also”—*Expansion Projects and Investment Program*” below

With an envisaged total annual containerboard capacity of approximately 1,100,000 tons, Paper produced approximately 1,020,000 tons and 1,035,000 tons of containerboard in 2018 and 2016, respectively. In 2018, approximately 811,000 tons were sold internally to Board (2016: 738,000 tons of internal containerboard sales), and a further approximately 111,500 tons were sold pursuant to swap agreements with other containerboard producers (2016: 106,000 tons of sales to swap partners), which allow us to reduce transportation costs, optimize our production program and swap internally produced containerboard for certain containerboard grades we do not produce in sufficient quantities, such as kraftliner. The remaining approximately 64,000 tons of containerboard we sold in 2018 were sold externally (2016: approximately 198,000 tons of external containerboard sales, excluding sales to swap partners). With a total annual corrugated board production capacity of approximately 1,440,000 tons (including (i) 100,000 tons of capacity of our new corrugated board production site (PW11) in Drizzona, Italy, which commenced production in early March 2018 and (ii) more than 200,000 tons of capacity of our new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom, which commenced production in January 2019) as of the date of this offering memorandum (2016: total annual corrugated board production capacity of approximately 1,130,000 tons), Board produced approximately 1,151,000 tons of containerboard in 2018, compared to approximately 930,000 tons of corrugated board in 2016. We believe that a high degree of vertical integration and making full use of the ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. At the same time, we believe that the high share of internal containerboard sales may help us stabilize or improve our overall Group margins by reducing our exposure to lower or more volatile margins (compared to corrugated board margins) of certain external containerboard sales. Our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options. The steady increase in the degree of vertical integration between Paper and Board over the last few years has also been allowing us to further optimize our internal logistics and supply chain.

Expansion Projects and Investment Program

To maintain and further strengthen our position as a leading, low-cost corrugated board producer in Europe in the long-term and to allow us to successfully meet ongoing and expected future market growth and the requirements of our customers with regard to supply certainty and product quality, we intend to continue to make prudent and controlled investments to further expand and improve the efficiency of our production facilities as part of our long-term “Two Twentyfive” strategy. In addition to further capacity expansion, our “Two Twentyfive” strategy, among other things, also contemplates a gradual technological transition and generation change away from the use of corrugators with a trim width of 2.5m, which are installed and currently in use at some of our older corrugated board production sites, to the use of more modern corrugators with trim widths of 2.8m or 3.3m at most of our corrugated board production sites. Following the successful completion of the ramp-up of production at our corrugated board production site (PW9) in Plössberg, Germany, which commenced production in October 2015, we had already accomplished one of our long-standing strategic goals in 2016 and were already operating within our target corridor with regard to the level of integration between Paper and Board. However, in the short-term to mid-term, we still intend to continue to focus our investment activities on further expanding our corrugated board production capacity to be able to seize what we believe are numerous further market opportunities for profitable growth, similar to those that led to the successful establishment of our most recent production sites (PW9, PW10, PW11 and PW12) in Plössberg (Germany), Trzcínica (Poland), Drizzona (Italy) and Ellesmere Port (United Kingdom). In continuation of our organic growth strategy, we

intend to primarily achieve further growth by pursuing further expansion opportunities via greenfield projects.

In addition to the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018 following commencement of commercial production in April 2017, we commenced production at our corrugated board production site (PW11) in Drizzona, Italy, in early March 2018 and at our newest corrugated production site (PW12) in Ellesmere Port, United Kingdom, in January 2019. As with our corrugated board production site (PW9) in Plössberg, Germany and our corrugated board production site (PW10) in Trzcinica, Poland, we established our production site (PW11) in Drizzona, Italy, as a packaging park project in immediate proximity to the existing packaging plant of a customer, Italian packaging specialist Imbal Carton S.r.l., which allows us to supply this new customer largely without freight and other logistics costs. The commencement of production at our corrugated board production site (PW11) in Drizzona, Italy, with an annual corrugated board production capacity of approximately 100,000 tons, also marked our entry into the largest corrugated sheet board market in Europe. With a total investment of approximately €85-90 million into the establishment of our new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom to replace our now decommissioned corrugated board production site (PW8) located just a few kilometers from the new site, we have now also become a significant player in the UK market. This newest corrugated board production site operates with a 3.35m trim width and has an annual corrugated board production capacity of more than 200,000 tons, more than double the production capacity of approximately 85,000 tons of the old site (PW8), which we established in 2009 with a used corrugator with a 2.5m trim width. We believe that the new production site, with its large capacity and state-of-the-art equipment, is one of the largest and most efficient corrugated sheet board plants globally and positions us well to further grow in the United Kingdom, a market in which we have historically been able to achieve above average EBITDA margins.

While we have historically pursued a pure greenfield growth strategy, including the three packaging park projects (PW9, PW10 and PW11), our newest corrugated board production site (PW12) in the United Kingdom as well as the proposed new corrugated board production sites (PW13 and PW14), we are also evaluating and will continue to evaluate opportunities to acquire attractive assets from competitors which would complement our existing network of production sites, advance our goal of further increasing our corrugated board production capacity and meet the other internal investment and financing criteria described above. In addition, in order to maintain and/or strengthen our relationships with certain large and long-standing customers or in response to opportunities to establish relationships with significant new customers, we will consider additional packaging park projects whereby we would establish corrugated board production sites at or in proximity to the packaging plants of the relevant customers.

With the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland, we had already accomplished one of our long-standing strategic goals and had already been operating at the top end of our long-term target corridor with regard to the level of integration between Paper and Board. We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019, i.e. we expect that the recycled containerboard sourcing requirements of our corrugated board production within Board will significantly exceed the internal supply capacities of Paper. In the short-term to mid-term, we nevertheless intend to continue to focus our investment activities on further expanding our corrugated board production capacity. We have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany, with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020. We expect to make total net investments (net of subsidies) of approximately €60 million at this site, which is slightly higher than our earlier estimates of approximately €50 million. This cost increase primarily relates to additional investments which will increase the annual corrugated board production capacity of the new site to approximately 175,000 tons, from the originally proposed capacity of approximately 140,000 tons. Higher than originally expected civil engineering costs (due to the booming construction sector) also contributed to the expected overall cost increase. In addition, we plan to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023, including a further corrugated board “mega plant” (PW14), which we expect will operate with a 3.35m trim width and have an annual corrugated board production capacity of up to 215,000 tons. We expect to invest approximately €70-75 million into this new plant, which will have capabilities similar to our “mega plant” (PW12) in Ellesmere Port, United Kingdom and, we envisage, will commence

production in late 2020 or early 2021. Primarily to fund our expected investments into this new site, we entered into the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility, with total commitments of €75 million. For more details about these New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank Facility*”, “*Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities*” and “*Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility*”. As a result of these proposed additional corrugated board production sites, we expect our annual corrugated board production capacity to increase from approximately 3.0 billion square meters (including our corrugated board production sites (PW11 and PW12) in Drizzona, Italy and Ellesmere Port, United Kingdom) to approximately 4.2 billion square meters.

Furthermore, in order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Board, we have also begun to actively pursue the realization of a further paper machine project (PM3) in Sandersdorf-Brehna, Germany. Earthworks for the new paper machine already started in January 2019 and, subject (among other things) to obtaining the missing regulatory approvals and construction proceeding according to plan, we currently expect this further state-of-the-art paper machine to start production in the second half of 2020, with a total annual containerboard capacity of approximately 750,000 tons. Following completion of the ramp-up phase of this potential further paper mill, this would mean an increase of the total annual containerboard capacity of Paper from currently approximately 1,100,000 tons to approximately 1,850,000 tons. The new paper machine (PM3) will have a 9.2m trim width, which would allow us to optimize containerboard production to meet the requirements of the more modern corrugators with trim widths of 2.8m or 3.3m at most of our newer corrugated board production sites, which would result in low volumes of cutting scrap and higher productivity. Once PM3 has commenced operations, we also plan for further specialization of our then three paper machines which we expect will further enhance the productivity of all our paper machines as each paper mill will be able to focus on clearly defined paper grades. We currently expect total net investment costs (i.e. net of expected subsidies) of approximately €465 million for this new paper machine project over a several year period, including approximately €116.7 million of initial expenditures (e.g. for advance payments for the paper machine and certain preliminary work) we had already incurred as of the end of the first quarter of 2019. We expect to fund any such investments with a combination of cash generated from our operating activities and additional borrowings, including drawings under the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured HSBC Facility. The currently expected total net investment costs of approximately €465 million in connection with the proposed establishment of our newest paper mill (PM3) significantly exceed our earlier estimates of €375-400 million, primarily due to certain additional strategic and value accretive investments we decided to make, which we expect to have significant economical as well as ecological benefits once the new paper mill will be operational. A large portion of the increase in the expected total net investment costs relates to investments into more energy-efficient components as part of our overall waste-heat concept from the new paper mill. The installation of these components is not legally mandated, but we expect it will result in significant cost savings in the mid- to long-term as well as a reduction of CO₂ emissions of up to 151,000 tons per year. In addition, we decided to install a closed cycle waste water treatment system. Once our new paper mill is operating at the full intended capacity of 750,000 tons of containerboard, we expect that this closed cycle waste water treatment system will help us to avoid approximately 3,775,000 m³ of waste water per year, cut the fresh water consumption of the new paper mill by 3,750,000 m³ and reduce CO₂ emissions by approximately a further 19,900 tons per year. At full capacity, the system is expected to produce approximately 65,000,000 kWh per year of bio gas as part of the waste water treatment process. The paper mill will use this bio gas in connection with its production process, cutting its natural gas consumption by approximately 7-8%. We further believe that the proposed closed cycle waste water system will minimize our reliance on third party waste water treatment facilities (which have led to capacity constraints at our existing paper machine (PM2) in Eisenhüttenstadt, Germany in the past) and result in significant related cost savings in the future. We further decided to install (i) a steam turbine which will allow us to produce a portion of the electricity requirements of the new paper mill in an environmentally friendly manner and (ii) a direct rail connection, which will give us the option to ship a portion of our future production in an environmentally friendly manner by rail and, we believe, result in savings of freight cost and other operational benefits. An increase in the expected costs of the necessary civil engineering works, due to the booming construction sector, also contributed to the overall increase in the expected total net investment costs.

Even successful expansion (or acquisition) projects can have a negative impact on our profitability in the short-term. For example, our reduced profitability between 2009 and 2010 following the global financial and economic crisis coincided with the launch of production at our corrugated board production sites in Strykow, Poland (PW7) and Ellesmere Port, United Kingdom (PW8) and at our paper mill in Eisenhüttenstadt, Germany (PM2), which involved significant start-up and ramp-up costs. The related costs were largely expected and are normal in our industry, but their timing further exacerbated our financial condition. In addition, even in a positive market environment, it typically takes two to three years from the launch of a new corrugated board production site until the production site is fully utilized. For example, we launched our corrugated board production site in Strykow, Poland (PW7) in 2009, but the site only completed its ramp-up phase in 2012 and therefore, did not operate at a three-shift capacity for an entire year until 2013. Our corrugated board production site (PW9) in Plössberg, Germany commenced production in October 2015 and completed its ramp-up phase in 2017, while our corrugated board production site (PW10) in Trzcinica, Poland completed a very fast and successful ramp-up and will likely operate at a full, three-shift capacity for an entire year for the first time in 2018. Our corrugated board production site (PW11) in Drizzona, Italy commenced production in March 2018 and we expect the ramp up of production to continue through the end of 2020. We expect our newest corrugated board production site (PW12) in Ellesmere Port, United Kingdom (which commence production in January 2019) and our proposed new corrugated board production site (PW13) in Eisfeld, Germany and proposed further corrugated board “mega-plant” (PW14) described above to also undergo ramp-up phases of different durations with a corresponding impact on our result of operations. The start-up and ramp-up costs and short-term to mid-term impact on our profitability of our latest paper machine project (PM3) will be proportionately higher, due to the much larger size, higher level of complexity and longer implementation timeframe of such a project, compared to the establishment of a new corrugated board production site. For our paper mill in Eisenhüttenstadt (PM2), for example, we executed some of the definitive agreements with our main project partners (including the related financing arrangements) as early as the summer of 2008, before starting initial ground works later that year. In addition, even though our paper mill in Eisenhüttenstadt (PM2) commenced operations in March 2010, it only completed its initial ramp-up phase in 2013. Since then, we have been continuing our efforts to further optimize our operations at our mill in Eisenhüttenstadt, which involves not only the optimization of the performance of PM2, but also the optimization of connected processes, including the operation of the CHP we acquired from EnBW effective as of midnight on December 31, 2015. For more information about the risks associated with the integration of potential expansion projects and acquisitions, see also “*Risk Factors—Risks Related to our Industry and our Business—The costs and difficulties of integrating complementary businesses through organic and acquisitive expansion could impede our future growth and adversely affect our competitiveness*”.

Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases

We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the newest corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom in January 2019 as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019. As already described in more detail above, apart from a further corrugated board production site (PW13) in Eisfeld, Germany (for which we have already commence construction and expect test production to start in the fourth quarter in 2019 or the first quarter of 2020), we currently expect to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023. See also “—*Expansion Projects and Investment Program*”. Unless and until we complete the proposed new paper machine project (PM3), this expected increase in our corrugated board production may cause us to further increase the level of internal containerboard sales to Board (and thereby the level of integration between Paper and Board) in 2019 and to increasingly rely on purchasing containerboard from third party suppliers. We believe that targeted external containerboard purchases that meet the specific sourcing requirements of Board will give us additional flexibility and provide us with opportunities to further optimize (i.e., minimize) our variable costs, for example, by allowing us to purchase containerboard that matches the specific grade and optimal trim-width required for our corrugated board production from time to time, from external suppliers located in close proximity to the relevant Board plants. We hope this will allow us to further reduce cutting scrap, further optimize logistics expenses and give us additional flexibility to optimize the utilization of our existing paper machines (PM1 and PM2).

Continuous Improvement Program

As described above, we operate in a cyclical industry where the price of our containerboard and corrugated board as well as recycled paper, our primary raw material, is subject to cyclical fluctuations. Other major cost items, such as personnel expenses, are the subject of annual increases, and the costs of energy and freight, which are also significant expenses, have partly trended upwards. In order to maintain profitability throughout the economic cycle, we have implemented a comprehensive profitability improvement program (the “**Continuous Improvement Program**”) to ensure the long-term success of our Group. Our Continuous Improvement Program focuses on (i) improving the effectiveness of our sales and marketing activities, (ii) optimizing (*i.e.*, minimizing) our variable costs and (iii) stabilizing our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry.

Since 2012, our main focus in connection with our goal of achieving sales excellence has been on (i) growing our external sales in excess of the general growth in market volumes (and thereby increasing our market share), (ii) maximizing the impact of the introduction of our “next generation” products into the market, and (iii) optimizing our sales portfolio. As part of our efforts to optimize our variable costs, we have focused on (i) reducing our consumption of raw materials, (ii) optimizing our energy consumption and energy costs, especially at our paper mill in Eisenhüttenstadt (PM2), and (iii) reducing the purchase prices of our key production factors, such as recycled paper, starch and freight services. Our continued ability to implement these and other efficiency improvement projects successfully may have a significant impact on our profitability. For more information about our past and ongoing efforts to ensure the sustainability of our business and to maintain our position as a cost leader, see also “—*Significant Synergies through High Degree of Vertical Integration between Paper and Board*”, “—*Achieving further cost-savings and efficiency improvements through increased external containerboard purchases*” and “*Business—Sustainability Focus; Research and Development*”.

The CHP Acquisition

Effective as of midnight on December 31, 2015, we acquired Progroup Power 1 GmbH from EnBW, the combined heat and power plant adjacent to our paper mill in Eisenhüttenstadt, Germany (the “**CHP**”), and certain related assets (such acquisition, the “**CHP Acquisition**”). As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves. The completion of the CHP Acquisition constituted a significant milestone in our efforts to optimize our cost structure and allowed us to significantly reduce our energy costs.

However, following completion of the CHP Acquisition, we are bearing certain additional risks associated with the ownership and operation of the CHP that were previously being borne by EnBW. In connection with a scheduled maintenance shutdown of the CHP in the third quarter of 2016, for example, we discovered certain technical faults within the CHP that we were not previously aware of. See also “*Risk Factors—Risks Related to Our Industry and our Business—We could be exposed to risks related to the CHP which have not been detected during the due diligence process preceding the CHP Acquisition*”. Because of our long-term economic interest in the efficient and uninterrupted (except for necessary maintenance shutdowns we schedule on a regular basis) operation of the CHP, we decided to significantly extend the originally scheduled maintenance shutdown period to allow us to make certain repairs and replace certain faulty components. This decision led to a significantly longer than scheduled maintenance shutdown of the CHP in the third and fourth quarters of 2016 and caused us to incur €16.0 million in “items of exceptional size or incidence”, including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales. We took this decision in the expectation that it would reduce the risk of future unscheduled shutdowns related to the faulty components, which could have resulted in even higher costs in the future. There were no significant unscheduled shutdowns of the CHP in 2017, 2018 or the first three months of 2019.

There can be no guarantee that we will be able to realize any cash savings as a result of the CHP Acquisition in future periods. For example, there can be no guarantee that the actual annual personnel expenses, repair and maintenance costs and insurance costs for the CHP will not be higher than previously estimated, that these expenses will not increase further in the future or that the actual requirements for capital investments per annum will not be higher than our previous estimates. Furthermore, following completion of the CHP Acquisition, we became directly responsible for, and we are now bearing all risks related to, the ownership and day-to-day operation of the CHP, which includes the risk of any further unexpected repair costs, the risk of any further significant unscheduled or longer than scheduled shutdowns of the CHP, the operational risks associated with the disposal of the ash generated by the CHP (*i.e.*, that we are unable to

procure the proper disposal of the ash and may therefore be forced to shut down the CHP) as well as certain other operational and regulatory risks. See also “*Risk Factors—We could be exposed to risks related to the CHP which have not been detected during the due diligence process preceding the CHP Acquisition*”.

KEY INCOME STATEMENT ITEMS

The following is a description of certain line items in our consolidated income statement.

Sales

Sales primarily include income derived from the sale of corrugated board and external sales of containerboard. We report sales as sales in Germany and sales abroad, respectively, based on the country in which the invoicing entity within the Group is located. As a result, this geographic split does not necessarily reflect the location of our customers. Other sales primarily include freight sales of Logistics, for example, when we hire out trucks from our own fleet to avoid empty trips or to make use of opportunities in the freight market.

Increase/(decrease) in finished goods and work in process

Increase/(decrease) in finished goods and work in process records the increase/(decrease) in finished goods and work in process at manufacturing cost. The manufacturing costs include direct material and labor costs as well as material and production overheads allocated proportionally on the assumption of normal utilization of production capacity.

Other operating income

Other operating income consists of all income from ordinary business activities not already recognized under other income items. Other operating income includes, among other things, income from investment subsidies, income from other periods, income from the release of provisions, refunds of energy tax, income from insurance refunds from damage events, income from reduction of bad debt allowance, and exchange rate gains.

Cost of materials

Cost of materials consists of costs of raw materials, consumables and supplies and purchased goods such as recycled paper, externally purchased containerboard, costs of chemicals, costs for auxiliary materials as well as pallet costs. It also includes costs of purchased services, including energy (*i.e.*, for electricity, gas and steam) and costs of waste disposal. In 2018, we also reclassified costs for water and waste water treatment from part of “other operating expenses” to costs of materials.

Personnel expenses

Personnel expenses include all expenses for wages and salaries (including bonuses) and other employment benefits, contributions to pension plans and social security contributions. Personnel expenses also include the costs of hiring new personnel and training costs.

Other operating expenses

Other operating expenses primarily include freight expenses (39.6% of total other operating expenses in 2016, 38.4% of total other operating expenses in 2017 and 39.7% of total other operating expenses in 2018), maintenance costs, costs of replacing paper machine clothing's, other production costs, expenses for external labor, waste water treatment costs, expenses from exchange rate differences, rental and leasing costs, legal and consulting expenses and expenses from other periods. In 2018, we also reclassified costs for water and waste water treatment from part of “other operating expenses” to “costs of materials”.

Amortization and depreciation of fixed intangible and tangible assets

We incur expense for depreciation and amortization of property, plant and equipment and intangible fixed assets as a result of both scheduled depreciation and impairment losses on these assets. Depreciation and amortization are usually charged on a straight-line basis over the expected useful life of the assets.

Interest income/(expenses), net

Interest income/(expenses), net includes other interest and similar income as well as interest and similar expenses. Interest and similar expenses primarily include interest expense and other financing costs related to long-term loans, short-term bank liabilities as well as bank and bank guarantee provisions.

Taxes

Taxes comprise trade taxes, corporate taxes, foreign taxes, deferred taxes as well as other taxes, such as taxes on substance (mainly real estate taxes as well as motor vehicle taxes).

RESULTS OF OPERATIONS

Three-Month Period Ended March 31, 2019 Compared to Financial Year Ended March 31, 2018

The following table sets out certain information with respect to our unaudited consolidated income statement for three-month periods ended March 31, 2018 and March 31, 2019:

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited) (€ in thousands)		(%)
Sales	243,786	245,356	0.6
Increase/(decrease) in finished goods and work in process	(3,608)	(2,573)	—
Other operating income ⁽¹⁾	1,573	3,335	112.0
Other own work capitalized	1,521	3,077	102.3
Total output ⁽²⁾	243,273	249,196	2.4
Cost of materials	(119,321)	(117,791)	(1.3)
Gross profit ⁽³⁾	123,952	131,405	6.0
Personnel expenses	(18,367)	(21,352)	16.3
Other operating expenses ⁽¹⁾	(42,355)	(42,501)	0.3
EBITDA ⁽⁴⁾	69,780	67,289	(3.6)
Amortization and depreciation of fixed intangible and tangible assets . . .	(12,293)	(13,839)	12.6
Other interest and similar income	10	19	83.2
Interest and similar expenses	(6,007)	(6,089)	1.4
Taxes on income	(12,310)	(13,903)	12.9
Earnings after taxes	32,630	33,739	3.4
Other taxes	(350)	(328)	(6.3)
Consolidated net income/(net loss) for the period	32,280	33,411	3.5
Consolidated unappropriated retained earnings brought forward	193,358	233,817	20.9
Consolidated net retained profits	225,639	267,229	18.4

(1) In response to certain changes to German GAAP with regard to the preparation of financial information for any period beginning after December 31, 2015, we do not report “income/(loss) on ordinary activities” and “extraordinary net income/(loss)” separately anymore. As a result, effective as of January 1, 2016, we report as “other operating income” and “other operating expenses” certain items we would previously have reported as “extraordinary income” and “extraordinary expenses”, as applicable. “Other operating expenses” for the three-month periods ended March 31, 2018 and 2019 as presented in the table above includes €6.9 million and €65 thousand, respectively, we would previously have reported as “extraordinary expenses”.

(2) Total output (not a German GAAP measure) is calculated as the sum of sales, increase/(decrease) in finished goods and work in process, other operating income and other own work capitalized.

(3) Gross profit (not a German GAAP measure) is calculated by deducting cost of materials from total output.

(4) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. While our reported EBITDA excludes the impact of any “extraordinary” items for all periods presented, it has not yet been adjusted for “items of exceptional size or incidence”.

Sales

Total sales increased slightly by €1.6 million or 0.6%, from €243.8 million in the first three months of 2018 to €245.4 million in the first three months of 2019 due to further strong growth in our corrugated board sales as a result of a higher volume sold and a slightly higher price level. Total corrugated board sales increased by €11.0 million or 5.2% in the first three months in 2019 compared to the first three months of 2018. Corrugated board sales volumes increased by approximately 12,700 tons, from approximately 294,600 tons in the first three months of 2018 to approximately 307,300 tons in the first three months of 2019. This increase in sales volumes was primarily attributable to our new corrugated board production site (PW11) in Drizzona, Italy, which only commenced operations in March 2018. External sales of containerboard decreased by approximately 19,300 tons or 36.0% from approximately 53,700 tons in the first three months of 2018 to approximately 34,400 tons in the first three months of 2019 due to scheduled maintenance shutdowns of both our existing paper machines (PM1 and PM2) in March 2019. Additionally, the increased sales volume of corrugated board sold led to a higher internal usage of containerboard by 5.2% or 16,000 tons and therefore to a further decrease in the external volume sold. See also “—Key Factors Affecting our Results of Operations—Significant Synergies through High Degree of Vertical Integration between Paper and Board” above.

The following table shows our sales by geographic origin and by product

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited) (€ in thousands)		(%)
Sales in Germany (origin)	140,584	129,393	(8.0)
Corrugated board	105,547	103,742	(1.7)
Containerboard	25,265	15,338	(39.3)
Other	9,772	10,313	5.5
Sales abroad (origin)	103,202	115,963	12.4
Corrugated board	103,202	115,963	12.4
Containerboard	—	—	—
Other	—	—	—
Total sales	243,786	245,356	0.6

In the first three months of 2019, sales in Germany accounted for 52.7% of total sales compared to 57.7% of total sales in the first three months of 2018. Sales in Germany decreased by €11.2 million or 8.0%, from €140.6 million in the first three months of 2018 to €129.4 million in the first three months of 2019, primarily due to a €9.9 million or 39.3% decrease in external containerboard sales for the reasons described above. Sales of corrugated board in Germany decreased by €1.8 million or 1.7%, and other sales in Germany increased by €0.5 million or 5.5%, primarily as a result of sales of electricity produced by the CHP, sales related to the incineration of refused derived fuel and other sales at our paper machine PM1. Corrugated board sales abroad increased by €12.8 million or 12.4%, from €103.2 million in the first three months in 2018 to €116.0 million in the first three months in 2019 for the reasons described above.

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited) (€ in thousands)		(%)
Corrugated board	208,749	219,705	5.2
Containerboard	25,265	15,338	(39.3)
Other	9,772	10,313	5.5
Total sales	243,786	245,356	0.6

Total corrugated board sales increased by €11.0 million or 5.2% in the first three months of 2019 compared to the first three months of 2018, with the main growth momentum coming from our new Italian operations. External sales of containerboard decreased by €9.9 million or 39.3%, from €25.3 million in the first three months of 2018 to €15.3 million in the first three months of 2019, while other sales increased by €0.5 million or 5.5%, from €9.8 million in the first three months of 2018 to €10.3 million in the first three

months of 2019. As a result, corrugated board sales as a percentage of total sales further increased from 85.6% in the first three months in 2018 to 89.5% in the first three months of 2019, while containerboard sales as a percentage of total sales further decreased from 10.4% in the first three months of 2018 to 6.3% in the first three months of 2019.

Increase/(decrease) in finished goods and work in process

Primarily due to planned maintenance downtimes at both paper mills, our finished goods and work in progress decreased by €1.0 million in the first three months in 2019.

Other operating income

	Three-month period ended March 31,		
	2018	2019	Change
	(unaudited)		(%)
	(€ in thousands)		
Investment subsidies	63	99	56.8
Income from other periods	820	1,267	54.5
Exchange rate differences	537	1,606	199.2
Extraordinary Income	0	1	—
Other income	153	362	136
Other operating income	1,573	3,335	112.0

Other operating income increased by €1.8 million or 112.0% from €1.6 million in the first three months of 2018 to €3.3 million in the first three months of 2019, mainly as a result of higher income from exchange rate differences which increased by €1.1 million or 199.2%, from €0.5 million in the first three months of 2018 to €1.6 million in the first three months of 2019. Income from other periods also increased by €0.4 million or 54.5%, from €0.8 million in the first three months of 2018 to €1.3 million in the first three months of 2019, primarily due to bonus credits from our suppliers for the previous year.

Income from investment subsidies amounted to €63 thousand in the first three months of 2018 and €99 thousand in the first three months of 2019 and relates to (i) subsidies we received in connection with the construction of our corrugated board production sites in Schüttorf and Plössberg (both Germany) and (ii) a €1.3 million KfW repayment grant we were awarded with regard to Facility A under the Existing Senior Secured IKB Facilities, the proceeds of which we used to fund certain investments that promote energy efficiency at our paper machine (PM1) in Burg, Germany, all of which we recognize as other operating income in line with the depreciation of the relevant assets.

Cost of materials

	Three-month period ended March 31,		
	2018	2019	Change
	(unaudited)		(%)
	(€ in thousands)		
Cost of raw materials, consumables and supplies	(97,850)	(94,808)	(3.1)
Cost of purchased services	(21,471)	(22,983)	7.0
Cost of materials	(119,321)	(117,791)	(1.3)

Cost of materials decreased slightly by €1.5 million or 1.3%, from €119.3 million in the first three months of 2018 (48.9% of sales, or 49.0% of total output) to €117.8 million in the first three months of 2019 (48.0% of sales, or 47.3% of total output), mainly as a result of lower costs of raw materials, consumables and supplies. The main driver for this decrease was declining prices for recycled paper. Contrary effects came from a higher quantity of externally purchased containerboard within the growth of our corrugated board business and a higher average price level for the externally purchased containerboard. See also “—Key Factors Affecting our Results of Operations—Significant Synergies through High Degree of Vertical Integration between Paper and Board” and “—Key Factors Affecting our Results of Operations—Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs—Fluctuations in Raw Material Costs” above.

The cost of purchased services increased by €1.6 million or 7.0%, from €21.5 million in the first three months of 2018 to €23.0 million in the first three months of 2019, due to higher costs for freight brokerage at Logistics (€2.8 million in the first three months of 2018 compared to €3.3 million in the first three months of 2019) and energy costs (i.e. electricity, gas and steam), which amounted to €14.5 million in the first three months of 2018 and €16.0 million in the first three months of 2019. Costs for waste water treatment decreased to €1.7 million in the first three months of 2019 compared to €2.3 million in the first three months of 2018, while costs for disposal of ash and rejects (€1.9 million in the first three months of 2018 compared to €1.9 million in the first three months of 2019) and other external services purchased remained broadly stable.

Gross profit

Gross profit increased by €7.5 million or 6.0%, from €124.0 million (50.8% of sales, or 51.0% of total output) in the first three months of 2018 to €131.4 million (53.6% of sales, or 52.7% of total output) in the first three months of 2019. This increase of our gross profit is primarily due to a further strong operating performance with growth in sales volume of corrugated board.

Personnel expenses

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited)		
	(€ in thousands)		(%)
Wages and salaries	(15,548)	(18,178)	16.9
Social security and pensions	(2,819)	(3,174)	12.6
—of which for pension expenses:	(49)	(98)	100.0
Personnel expenses	(18,367)	(21,352)	16.3

Personnel expenses in the first three months of 2018 increased by €3.0 million or 16.3%, from €18.4 million in the first three months of 2018 to €21.4 million in the first three months of 2019, reflecting a €2.6 million or 16.9% increase in wages and salaries and a €0.4 million or 12.6% increase in social security and pensions. These increases were due to an increase in the average number of employees (from 1,064 in the first three months of 2018 to 1,128 in the first three months of 2019), primarily related to the hiring of new employees starting in the first quarter of 2019 in connection with the ongoing establishment of our new corrugated board production site (PW13) in Eisfeld, Germany, and our paper machine project (PM3) in Sandersdorf-Brehna, Germany as well as, to a lesser extent, the creation of additional administrative and Group positions, which reflect the strong growth within the Group.

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited)		(%)
Administrative employees	254	296	16.5
Factory workers	810	832	2.7
Average number of employees	1,064	1,128	6.0

Both the average number of administrative employees and the average number of factory workers increased from 254 and 810, respectively, in the first three months of 2018 to 296 and 832, respectively, in the first three months of 2019, for the reasons described above.

Other operating expenses

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited) (€ in thousands)		(%)
Expenses from exchange rate differences	(780)	(199)	(74.5)
Expenses from other periods	(258)	(580)	124.8
Maintenance and repair	(7,642)	(10,965)	43.5
Freight expenses	(17,126)	(18,779)	9.7
Paper machine clothing's	(1,670)	(1,813)	8.6
Rental and leasing costs	(1,865)	(2,208)	18.4
Legal and consulting fees	(779)	(1,235)	58.5
Extraordinary expenses	(6,900)	(65)	(99.1)
Others	(5,335)	(6,657)	24.7
Other operating expenses	(42,355)	(42,501)	0.3

Other operating expenses increased slightly by €0.1 million or 0.3%, from €42.4 million in the first three months of 2018 to €42.5 million in the first three months of 2019, mainly due to increases in the expenses for maintenance and repair and freight expenses, which more than off-set a significant decrease in extraordinary expenses.

Expenses for maintenance and repair increased significantly by €3.3 million or 43.5%, from €7.6 million in the first three months of 2018 to €11.0 million in the first three months of 2019, primarily due to the scheduled downtimes of both our existing paper machines (PM1 and PM2), while freight expenses increased by €1.7 million or 9.7%, from €17.1 million in the first three months of 2018 to €18.8 million in the first three months of 2019, due to a higher freight volume and higher freight rates. Rental and leasing costs increased by €0.3 million or 18.4%, from €1.9 million in the first three months of 2018 to €2.2 million in the first three months of 2019, expenses for paper machine clothing's increased by €0.1 million or 8.6%, expenses from other periods also increased by €0.3 million or 124.8% and legal and consulting fees increased by €0.5 million or 58.5% from €0.8 million in the first three months of 2018 to €1.2 million in the first three months of 2019. Finally, "others" increased by €1.3 million or 24.7%, from €5.3 million in the first three months of 2018 to €6.7 million in the first three months of 2019, primarily due to planned maintenance shut downs of both our existing paper machines (PM1 and PM2). Extraordinary expenses of €6.9 million in the first three months of 2018 primarily relate to the expenses we incurred in connection with the offering of the Existing Notes in March 2018.

EBITDA

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited) (€ in thousands)		(%)
EBITDA ⁽¹⁾	69,780	67,289	3.6

(1) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. While our reported EBITDA excludes the impact of any "extraordinary" items for all periods presented, it has not yet been adjusted for "items of exceptional size or incidence".

Our EBITDA decreased slightly by €2.5 million or 3.6% from €69.8 million in the first three months of 2018 (28.6% of sales) to €67.3 million in the first three months of 2019 (27.4% of sales), as a result of the factors described above.

Amortization and depreciation of fixed intangible and tangible assets

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited)		
	(€ in thousands)		(%)
Depreciation on intangible assets	(696)	(713)	2.4
Depreciation on tangible assets	(11,597)	(13,126)	13.2
Total amortization and depreciation of fixed intangible and tangible assets	(12,293)	(13,839)	12.6

Amortization and depreciation expenses increased by €1.5 million or 12.6% from €12.3 million in the first three months of 2018 to €13.8 million in the first three months of 2019. This increase was primarily due to (i) amortization charges with regard to our new corrugated board production site (PW11) in Drizzona, Italy, which commenced production in March 2018, and our new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom, which commenced production in January 2019, as well as (ii) certain maintenance capital expenditure in the first three months of 2019.

Interest income/(expenses), net

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited)		
	(€ in thousands)		(%)
Other interest and similar income	10	19	83.2
Interest and similar expenses	(6,007)	(6,089)	1.4
Interest income/(expenses), net	(5,996)	(6,070)	1.2

Our net interest expense in the first three months of 2019 increased slightly by €0.1 million or 1.2% from net expenses of €6.0 million in the first three months of 2018 to net expenses of €6.1 million in the first three months of 2019, due to the amortization of €19.3 million in lump sum fee payments we made to JH-Holding and our minority shareholders on March 8, 2018 in consideration for granting security over their shares in the Issuer to secure our obligations under our various financing arrangements, as described in more detail under “*Certain Relationships and Related Party Transactions—Provision of Share Pledges by JH-Holding GmbH and our Minority Shareholders*”. Liabilities represented by bonds and bank loans were €600 million and €102.0 million, respectively, as of March 31, 2019 compared to liabilities represented by bonds and bank loans of €945 million and €40.2 million, respectively, as of March 31, 2018.

Taxes

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited)		
	(€ in thousands)		(%)
Taxes on income	(12,310)	(13,903)	12.9
Other taxes	(350)	(328)	(6.3)
Total taxes (unaudited)	(12,660)	(14,231)	12.4

Total taxes increased by €1.6 million or 12.4%, from €12.7 million in the first three months of 2018 to €14.2 million in the first three months of 2019, primarily because of our strong financial performance. Total taxes mainly include trade tax and corporate income tax for the current financial year. Furthermore, total taxes include expenses arising from the adjustment of deferred tax assets, which amounted to €0.8 million in the first three months of 2019.

Consolidated net income/(net loss)

	Three-month period ended March 31,		Change
	2018	2019	
	(unaudited) (€ in thousands)		(%)
Consolidated net income/(loss) for the period	<u>32,280</u>	<u>33,411</u>	<u>3.5</u>
Consolidated unappropriated retained earnings brought forward	<u>193,358</u>	<u>233,817</u>	<u>20.9</u>
Consolidated net retained profits	<u>225,639</u>	<u>267,229</u>	<u>18.4</u>

Consolidated net income/(loss) for the period increased by €1.1 million or 3.5% from a profit of €32.3 million in the first three months of 2018 to a profit of €33.4 million in the first three months of 2019. This was the result of the factors described above.

Financial Year Ended December 31, 2018 Compared to Financial Year Ended December 31, 2017

The following table sets out certain information with respect to our audited consolidated income statement for the financial years ended December 31, 2017 and December 31, 2018:

	Year ended December 31,		Change
	2017	2018	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Sales	804,256	966,118	20.1
Increase/(decrease) in finished goods and work in process	10,298	23,361	128.9
Other operating income ⁽¹⁾	17,603	17,725	0.7
Other own work capitalized	2,637	7,573	187.1
Total output (unaudited)⁽²⁾	<u>834,795</u>	<u>1,014,778</u>	<u>21.6</u>
Cost of materials	(430,481)	(493,641)	14.7
Gross profit (unaudited)⁽³⁾	<u>404,314</u>	<u>521,137</u>	<u>28.9</u>
Personnel expenses	(68,326)	(78,925)	15.5
Other operating expenses ⁽¹⁾	(160,425)	(168,800)	5.2
EBITDA (unaudited)⁽⁴⁾	<u>180,354</u>	<u>275,479</u>	<u>52.7</u>
Amortization and depreciation of fixed intangible and tangible assets . .	(50,032)	(58,153)	16.2
Other interest and similar income	65	86	32.2
Interest and similar expenses	(23,678)	(32,062)	35.4
Taxes on income	(28,058)	(54,865)	95.5
Earnings after taxes	<u>73,861</u>	<u>128,418</u>	<u>73.9</u>
Other taxes	(1,449)	(1,453)	0.2
Consolidated net income/(net loss) for the period	<u>72,412</u>	<u>126,965</u>	<u>75.3</u>
Consolidated unappropriated retained earnings brought forward	<u>120,947</u>	<u>106,852</u>	<u>(11.7)</u>
Consolidated net retained profits	<u>193,358</u>	<u>233,817</u>	<u>20.9</u>

(1) In response to certain changes to German GAAP with regard to the preparation of financial information for any period beginning after December 31, 2015, we do not report “income/(loss) on ordinary activities” and “extraordinary net income/(loss)” separately anymore. As a result, effective as of January 1, 2016, we report as “other operating income” and “other operating expenses” certain items we would previously have reported as “extraordinary income” and “extraordinary expenses”, as applicable. “Other operating income” for the fiscal year ended December 31, 2018 as presented in the table above includes €4.0 million we would previously have reported as “extraordinary income”. “Other operating expenses” for the fiscal years ended December 31, 2017 and 2018 as presented in the table above includes €6.2 million and €7.5 million, respectively, we would previously have reported as “extraordinary expenses”.

(2) Total output (not a German GAAP measure) is calculated as the sum of sales, increase/(decrease) in finished goods and work in process, other operating income and other own work capitalized.

(3) Gross profit (not a German GAAP measure) is calculated by deducting cost of materials from total output.

- (4) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. While our reported EBITDA excludes the impact of any “extraordinary” items for all periods presented, it has not yet been adjusted for “items of exceptional size or incidence”.

Sales

Total sales increased significantly by €161.9 million or 20.1%, from €804.3 million in 2017 to €966.1 million in 2018. This increase in sales was primarily attributable to a significant increase in corrugated board sales, both in Germany and abroad, which significantly exceeded general market growth. Total corrugated board sales increased by €176.0 million or 26.5% in 2018 compared to 2017. Corrugated board sales volumes increased strongly by approximately 140,000 tons, from approximately 1,011,000 tons in 2017 to approximately 1,151,000 tons in 2018. This significant increase in sales volumes was attributable to (i) the successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland following commencement of commercial production in April 2017, (ii) the successful (but on-going) ramp-up at our corrugated board production site (PW11) in Drizzona, Italy, following commencement of commercial production in March 2018 (iii) our ongoing efforts to improve the effectiveness of our sales and marketing activities as part of our Continuous Improvement Program as well as (iv) our continuing efforts to further optimize production of our corrugated board plants. See also “—Key Factors Affecting our Results of Operations—Expansion Projects and Investment Program” and “—Key Factors Affecting our Results of Operations—Continuous Improvement Program” above. At the same time, our total containerboard sales volume slightly decreased by approximately 31,000 tons or 3.1%, from approximately 1,018,000 tons in 2017 to approximately 987,000 tons in 2018, primarily due to deliberate build-up of inventories. External sales of containerboard significantly decreased by approximately 66,000 tons or 27.2% from approximately 242,000 tons in 2017 to approximately 176,000 tons in 2018 as we managed to further increase the share of internal containerboard sales to our corrugated board operations within Board. This was due to further improved utilization of our existing corrugated board production sites, the successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland as well as the successful (but ongoing) ramp-up at our corrugated board production site (PW11) in Drizzona, Italy. As a result, the average grade of integration between Paper and Board, including swap agreements, increased from 87% in 2017 to 93% in 2018. The average price of corrugated board in 2018 was significantly above the average price of 2017 (+11.1%). During the course of 2017 and the first half of 2018, price level for corrugated board increased following the recycled containerboard’s price development. The average price per ton for externally sold containerboard in 2018 was significantly above the average price in 2017 (+16.4%), which also had a positive impact on our total sales in 2018. After a continuously upward trend during 2017 and the first quarter of 2018, prices for recycled containerboard were primarily stable in the second and third quarter of 2018 and declined in the fourth quarter of 2018. See also “—Key Factors Affecting our Results of Operations—Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs—Fluctuations in Raw Material Costs” above.

The following table shows our sales by geographic origin and by product:

	Year ended December 31,		Change
	2017	2018	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Sales in Germany (origin) (unaudited)	484,291	539,086	11.3
Corrugated board	343,957	412,940	20.1
Containerboard	99,729	84,456	(15.3)
Other	40,605	41,690	2.7
Sales abroad (origin)	319,965	427,032	33.5
Corrugated board	319,965	427,026	33.5
Containerboard	—	—	—
Other	—	6	—
Total sales	804,256	966,118	20.1

In 2018, sales in Germany accounted for 55.8% of total sales compared to 60.2% of total sales in 2017. Sales in Germany increased by €54.8 million or 11.3%, from €484.3 million in 2017 to €539.1 million in

2018, primarily due to a €69.0 million or 20.1% increase in corrugated board sales for the reasons described above. In contrast, external sales of containerboard in Germany decreased by €15.3 million or 15.3%, also for the reasons described above. Other sales in Germany increased by €1.1 million or 2.7%, primarily as a result of income from external freight brokerage. Corrugated board sales abroad also increased by €107.1 million or 33.5%, from €320.0 million in 2017 to €427.0 million in 2018 following strong growth of corrugated board described above.

	Year ended December 31,		Change
	2017	2018	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Corrugated board (unaudited)	663,922	839,966	26.5
Containerboard	99,729	84,456	(15.3)
Other	40,605	41,696	2.7
Total sales	804,256	966,118	20.1

Total corrugated board sales increased by €176.0 million or 26.5% in 2018 compared to 2017, due to the €54.8 million increase in sales in Germany and €107.1 million increase in sales abroad. External sales of containerboard decreased significantly by €15.3 million or 15.3%, from €99.7 million in 2017 to €84.5 million in 2018, while other sales increased by €1.1 million or 2.7%, from €40.6 million in 2017 to €41.7 million in 2018. As a result, corrugated board sales as a percentage of total sales further increased from 82.6% in 2017 to 86.9% in 2018, while containerboard sales as a percentage of total sales further decreased from 12.4% in 2017 to 8.7% in 2018.

Increase/(decrease) in finished goods and work in process

Primarily due to higher stocks of containerboard as work in process in 2018, our finished goods and work in progress increased by €13.1 million in 2018.

Other own work capitalised

Other own work capitalised in 2017 and 2018 relates to our two new corrugated board production sites (PW11 and PW12) in Drizzona, Italy and Ellesmere Port, United Kingdom, as well as the ongoing establishment of a further corrugated board production site (PW13) in Eisfeld, Germany, and our further paper machine project (PM3) in Sandersdorf-Brehna, Germany.

Other operating income

	Year ended December 31,		Change
	2017	2018	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Investment subsidies	252	251	(0.4)
Income from other periods	12,567	13,268	(28.4)
<i>Thereof extraordinary income</i>	0	3,972	—
Exchange rate differences	3,930	2,929	(25.5)
Other income (unaudited)	854	1,277	49.5
Other operating income	17,603	17,725	0.7

Other operating income increased slightly by €0.1 million or 0.7% from €17.6 million in 2017 to €17.7 million in 2018, primarily due to extraordinary income which amounted to €4.0 million in 2018 and more than off-set significant decreases in income from other periods and income from exchange rate differences. Extraordinary income in 2018 includes, among other things, a release of provisions for finance costs and indemnity claims against EnBW in relation to additional tax payments regarding the fiscal year 2013. The income from EnBW relates to certain tax indemnities we received from EnBW in connection with the CHP Acquisition which cover tax liabilities with regard to periods prior to the acquisition date. We

have recorded a corresponding tax expense under “income tax”. Other income also increased by €0.4 million or 49.5%, from €0.9 million in 2017 to €1.3 million in 2018.

Contrary effects came from lower income from other periods which increased by €0.7 million or 5.6% from €12.6 million in 2017 to €13.3 million in 2018, primarily due to a different timing of refunds for grid charges and energy taxes. Income from exchange rate differences also decreased by €1.0 million or 25.5% from €3.9 million in 2017 to €2.9 million in 2018.

Income from investment subsidies amounted to €0.3 million in 2017 and €0.3 million in 2018 and relates to subsidies we received in connection with the construction of our corrugated board production sites in Schüttorf and Plössberg (both Germany) and the construction of our paper machine in Burg. We recognize these subsidies as other operating income in line with the depreciation of the relevant assets over a period of up to 33 years.

Cost of materials

	Year ended December 31,		
	2017	2018	Change
	(audited)		
	(€ in thousands)		(%)
Cost of raw materials, consumables and supplies	(361,659)	(400,079)	10.6
Cost of purchased services	(68,822)	(93,563)	35.9
Cost of materials	(430,481)	(493,641)	14.7

Cost of materials increased significantly by €63.2 million or 14.7%, from €430.5 million in 2017 (53.5% of sales, or 51.6% of total output) to €493.6 million in 2018 (51.1% of sales, or 48.6% of total output), mainly as a result of a significant increase of €38.4 million or 10.6% in the cost of raw materials, consumables and supplies as a result of the significant increase in our corrugated board production as described under “—Sales” above. The increase in costs of materials was significantly below the 20.1% increase in total sales in 2018. The price of recycled paper declined between the fourth quarter of 2017 and the second quarter of 2018 and remained at a comparatively low level for the rest of the year. As a result, our own average costs per ton for the recycled paper grades we purchased during 2018 were significantly lower (28.0%) compared to 2017. These considerable lower recycled paper prices and the unchanged production volume resulted in a decrease of recycled paper costs from €163.1 million in 2017 to €116.4 million in 2018. Costs of raw materials also include the costs of externally purchased containerboard as raw material for our corrugated board plants, which significantly rose from €160.5 million in 2017 to €246.4 million in 2018. This increase was attributable to significantly higher production and sales volumes of corrugated board, higher average purchase prices for external containerboard and a higher quantity of externally sourced containerboard. See also “—Key Factors Affecting our Results of Operations—Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs—Fluctuations in Raw Material Costs” above.

The cost of purchased services also increased significantly by €24.7 million or 35.9%, from €68.8 million in 2017 to €93.6 million in 2018, due to the reclassification of costs for waste water treatment from other operating expenses to cost of materials. These costs amounted to €5.8 million in 2017 and €14.2 million in 2018. The significant increase in costs of waste water treatment resulted from provisions for potential exceptional charges for waste water treatment in 2018.

Energy costs (i.e. electricity, gas and steam) increased significantly from €50.5 million in 2017 to €60.3 million in 2018 due to higher prices for energy consumption and power network charges, in particular at our two existing paper machines (PM1 and PM2). Costs for freight brokerage at Logistics increased from €10.3 million in 2017 to €11.5 million in 2018.

Gross profit

Gross profit increased by €116.8 million or 28.9%, from €404.3 million (50.3% of sales, or 48.4% of total output) in 2017 to €521.1 million (53.9% of sales, or 51.4% of total output) in 2018. This increase of our gross profit is primarily due to the increase in sales volumes of corrugated board and higher margins in both our containerboard and corrugated board businesses.

Personnel expenses

	Year ended December 31,		Change
	2017	2018	
	(audited) (€ in thousands)		(%)
Wages and salaries	(58,294)	(67,541)	15.9
Social security and pensions	(10,032)	(11,385)	13.5
—of which for pension expenses:	(258)	(266)	3.1
Personnel expenses	(68,326)	(78,925)	15.5

Personnel expenses in 2018 increased by €10.6 million or 15.5%, from €68.3 million in 2017 to €78.9 million in 2018, reflecting a €9.2 million or 15.9% increase in wages and salaries and a €1.4 million or 13.5% increase in social security and pensions. These increases were due to (i) a 5.4% increase in the average number of employees (from 1,040 in 2017 to 1,096 in 2018), primarily related in the hiring of new employees in connection with the launch and subsequent ramp-up at our corrugated board production site (PW11) in Drizzona, Italy, starting in the third quarter of 2017, and the creation of additional administrative and Group positions, which reflect the strong growth within the Group, as well as (ii) regular annual salary and wage increases.

	Year ended December 31,		Change
	2017	2018	
	(audited)		(%)
Administrative employees	248	276	11.3
Factory workers	792	820	3.5
Average number of employees	1,040	1,096	5.4

Both the average number of administrative employees and the average number of factory workers increased from 248 and 792, respectively, in 2017 to 276 and 820, respectively, in 2018, for the reasons described above.

Other operating expenses

	Year ended December 31,		Change
	2017	2018	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Freight expenses	(61,653)	(66,954)	8.6
Maintenance and repair	(41,405)	(45,239)	9.3
Paper machine clothing's	(6,557)	(6,344)	(3.3)
Rental and leasing costs	(6,624)	(7,832)	18.2
Legal and consulting fees	(2,571)	(4,043)	57.2
Expenses from exchange rate differences	(3,340)	(4,566)	36.7
Expenses from other periods	(1,935)	(1,352)	(30.1)
Extraordinary expenses	(6,240)	(7,492)	20.1
Others	(30,100)	(24,978)	(17.0)
Other operating expenses	(160,425)	(168,800)	5.2

Other operating expenses increased by €8.4 million or 5.2%, from €160.4 million in 2017 to €168.8 million in 2018. Freight expenses increased by €5.3 million or 8.6%, from €61.7 million in 2017 to €67.0 million, mainly due to increased freight volumes as a result of our increased sales volume of corrugated board. In addition, expenses for maintenance and repair increased by €3.8 million or 9.3%, from €41.4 million in 2017 to €45.2 million in 2018, primarily due to the replacement of the sizer at our paper machine PM1 and some higher maintenance costs at our corrugated board plants.

Legal and consulting fees increased by €1.5 million or 57.2%, from €2.6 million in 2017 to €4.0 million in 2018, primarily due to consulting costs for supporting organizational change. The €1.3 million or 20.1% increase in extraordinary expenses, from €6.2 million in 2017 to €7.5 million in 2018, primarily relates to expenses we incurred in connection with the issuance of the Existing Notes in March 2018 and the negotiation and execution, in the third quarter of 2018, of Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured Commerzbank Facilities and the Existing Senior Secured SaarLB Facility to finance a portion of our paper machine project (PM3) at Sandersdorf-Brehna, Germany. Expenses from exchange rate differences increased by €1.2 million or 36.7%, from €3.3 million in 2017 to €4.6 million in 2018. Rental and leasing costs increased by €1.2 million or 18.2%, from €6.6 million in 2017 to €7.8 million in 2018, primarily due to rental costs for the building housing our new corrugated board production site (PW11) in Drizzona, Italy.

These increases more than offset the decreases in other expenses, expenses from other periods and expenses for paper machine clothing's. Other expenses significantly decreased by €5.1 million or 17.0%, from €30.1 million in 2017 to €25.0 million in 2018, mainly due to the reclassification of costs for waste water treatment from other operating expenses to costs of materials. Expenses from other periods decreased by €0.6 million or 30.1%, from €1.9 million in 2017 to €1.4 million in 2018. Expenses for paper machine clothing's decreased by €0.2 million or 3.3%, from €6.6 million in 2017 to €6.3 million in 2018.

EBITDA

	Year ended December 31,		Change
	2017	2018	
	(unaudited)		
	(€ in thousands)		(%)
EBITDA ⁽¹⁾	180,354	275,479	52.7

(1) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. While our reported EBITDA therefore excludes the impact of any "extraordinary" items for all periods presented, it has not yet been adjusted for "items of exceptional size or incidence".

Our EBITDA increased significantly by €95.1 million or 52.7% from €180.4 million in 2017 (22.4% of sales) to an exceptional €275.5 million in 2018 (28.5% of sales), as a result of the factors described above, following the strong operating performance and supported by favorable market conditions.

Amortization and depreciation of fixed intangible and tangible assets

	Year ended December 31,		Change
	2017	2018	
	(audited)		
	(€ in thousands)		(%)
Depreciation on intangible assets	(2,821)	(2,795)	(0.9)
Depreciation on tangible assets	(47,212)	(48,957)	3.7
Depreciation on current assets	0	(6,400)	—
Total amortization and depreciation of fixed intangible and tangible assets	(50,032)	(58,153)	16.2

Amortization and depreciation expenses increased by €8.1 million or 16.2% from €50.0 million in 2017 to €58.2 million in 2018. This increase was primarily due to (i) an exceptional write-down of slowly moving spare parts, as well as (ii) certain maintenance capital expenditure in 2018.

Interest income/(expenses), net

	Year ended December 31,		Change
	2017	2018	
	(audited) (€ in thousands)		(%)
Other interest and similar income	65	86	32.2
Interest and similar expenses	(23,678)	(32,062)	35.4
Interest income/(expenses), net	(23,613)	(31,976)	35.4

Net interest expenses in 2018 increase significantly by €8.4 million, or 35.4%, from net interest expenses of €23.6 million in 2017 to net interest expenses of €32.0 million in 2018, due to an increase in interest and similar expenses by €8.4 million or 35.4% from €23.7 million in 2017 to €32.1 million in 2018, mainly due to an earlier redemption premium we were required to pay in connection with the redemption of the Issuer's €345,000,000 5.125% senior secured fixed rate notes due 2022 in May 2018 with a portion of the proceeds from the issuance of the Existing Notes in March 2018. Liabilities represented by bonds and bank loans were €600 million and €74.0 million, respectively, as of December 31, 2018 compared to liabilities represented by bonds and bank loans of €495 million and €42.5 million, respectively, as of December 31, 2017.

Taxes

	Year ended December 31,		Change
	2017	2018	
	(audited) (€ in thousands)		(%)
Taxes on income	(28,058)	(54,865)	95.5
Other taxes	(1,449)	(1,453)	0.2
Total taxes	(29,507)	(56,318)	90.9

Total taxes increased significantly by €26.8 million or 90.9%, from €29.5 million in 2017 to €56.3 million in 2018. Total taxes mainly include trade tax and corporate income tax for the current financial year. Furthermore, total taxes include deferred payments of trade tax and corporate tax for previous years, which amounted to €3.0 million in 2018 and expenses arising from the adjustment of deferred tax assets, which amounted to €0.8 million in 2018. Taxes on income also include tax expenses for prior years at Progroup Power 1 GmbH in an amount of €2.7 million. This tax expense is the result of a tax audit for the years prior to the CHP Acquisition. Pursuant to certain tax indemnity provisions, EnBW was required to compensate us for such historic tax liabilities, and we have recorded the related indemnification payments under "other operating income" as described above.

Consolidated net income/(net loss)

	Year ended December 31,		Change
	2017	2018	
	(audited) (€ in thousands)		(%)
Consolidated net income/(loss) for the period	72,412	126,965	75.3
Consolidated unappropriated retained earnings brought forward	120,947	106,852	(11.7)
Consolidated net retained profits	193,358	233,817	20.9

Consolidated net income/(loss) for the period increased by €54.6 million or 75.3% from a profit of €72.4 million in 2017 to a profit of €127.0 million in 2018. This was the result of the factors described above.

Financial Year Ended December 31, 2017 Compared to Financial Year Ended December 31, 2016

The following table sets out certain information with respect to our audited consolidated income statement for the financial years ended December 31, 2016 and December 31, 2017:

	Year ended December 31,		Change (%)
	2016	2017	
	(audited, unless otherwise stated) (€ in thousands)		
Sales	733,228	804,256	9.7
Increase/(decrease) in finished goods and work in process	(6,554)	10,298	—
Other operating income ⁽¹⁾	14,713	17,603	19.6
Other own work capitalized	1,116	2,637	136.3
Total output (unaudited)⁽²⁾	742,502	834,795	12.4
Cost of materials	(371,550)	(430,481)	15.9
Gross profit (unaudited)⁽³⁾	370,952	404,314	9.0
Personnel expenses	(61,423)	(68,326)	11.2
Other operating expenses ⁽¹⁾	(154,293)	(160,425)	4.0
EBITDA (unaudited)⁽⁴⁾	154,679	180,354	16.6
Amortization and depreciation of fixed intangible and tangible assets . . .	(47,372)	(50,032)	5.6
Other interest and similar income	144	65	(54.9)
Interest and similar expenses	(25,334)	(23,678)	(6.5)
Taxes on income	(19,793)	(28,058)	41.8
Earnings after taxes	62,883	73,861	17.5
Other taxes	(1,479)	(1,449)	(2.0)
Consolidated net income/(net loss) for the period	61,404	72,412	17.9
Consolidated unappropriated retained earnings brought forward	117,062	120,947	3.3
Consolidated net retained profits	178,465	193,358	8.3

- (1) In response to certain changes to German GAAP with regard to the preparation of financial information for any period beginning after December 31, 2015, we do not report “income/(loss) on ordinary activities” and “extraordinary net income/(loss)” separately anymore. As a result, effective as of January 1, 2016, we report as “other operating income” and “other operating expenses” certain items we would previously have reported as “extraordinary income” and “extraordinary expenses”, as applicable. “Other operating expenses” for the fiscal years ended December 31, 2016 and 2017 as presented in the table above includes €0.9 million and €6.2 million, respectively, we would previously have reported as “extraordinary expenses”.
- (2) Total output (not a German GAAP measure) is calculated as the sum of sales, increase/(decrease) in finished goods and work in process, other operating income and other own work capitalized.
- (3) Gross profit (not a German GAAP measure) is calculated by deducting cost of materials from total output.
- (4) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. While our reported EBITDA therefore excludes the impact of any “extraordinary” items for all periods presented, it has not yet been adjusted for “items of exceptional size or incidence”. Excluding the negative effect of €16.0 million in “items of exceptional size or incidence” (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million.

Sales

Total sales increased significantly by €71.0 million or 9.7%, from €733.2 million in 2016 to €804.3 million in 2017 due to further strong growth of our corrugated board sales as a result of both higher sales volumes and higher average price levels in 2017 compared to 2016. Total corrugated board sales increased by €74.7 million or 12.7% in 2017 compared to 2016, significantly in excess of general market growth. Corrugated board sales volumes increased by approximately 81,000 tons, from approximately 930,000 tons in 2016 to approximately 1,011,000 tons in 2017. This significant increase in sales volumes was attributable to (i) the successful ramp-up at our corrugated board production site (PW9) in Plössberg, Germany during

2016 and 2017 following commencement of commercial production in October 2015, (ii) the quick and successful (but ongoing) ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland following commencement of commercial production in April 2017, (iii) our ongoing efforts to improve the effectiveness of our sales and marketing activities as part of our Continuous Improvement Program as well as (iv) our continuing efforts to further optimize production of our Board plants. See also “—Key Factors Affecting our Results of Operations—Expansion Projects and Investment Program” above. Our total containerboard sales volume decreased by approximately 24,000 tons or 2.3%, from approximately 1,042,000 tons in 2016 to approximately 1,018,000 tons in 2017, primarily due to capacity constraints imposed on the operation of our paper machine (PM2) in Eisenhüttenstadt as a result of certain technical limitations of the local waste water treatment plant. The trend towards lighter containerboard impacted the production program of PM2 and led to a substitution of standard weight grades through super-light-weight containerboard. The lower output of super-light-weight containerboard in tons per hour is in general offset by higher sales prices. External sales of containerboard decreased by approximately 62,000 tons or 20.4% from approximately 304,000 tons in 2016 to approximately 242,000 tons in 2017 as we managed to further increase the share of internal containerboard sales to Board through further improved utilization of our existing corrugated board production sites, the successful ramp-up at our corrugated board production site (PW9) in Plössberg, Germany as well as the quick and successful (but ongoing) ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland. During the course of 2017, price levels for both corrugated board and containerboard increased significantly, which also had a positive impact on our total sales in 2017. See also “—Key Factors Affecting our Results of Operations—Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs—Fluctuations in Raw Material Costs” above.

The following table shows our sales by geographic origin and by product:

	Year ended December 31,		Change
	2016	2017	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Sales in Germany (origin) (unaudited)	455,362	484,291	6.4
Corrugated board	311,380	343,957	10.5
Containerboard	114,256	99,729	(12.7)
Other	29,726	40,605	36.6
Sales abroad (origin)	277,866	319,965	15.2
Corrugated board	277,866	319,965	15.2
Containerboard	—	—	—
Other	—	—	—
Total sales	733,228	804,256	9.7

In 2017, sales in Germany accounted for 60.2% of total sales compared to 62.1% of total sales in 2016. Sales in Germany increased by €28.9 million or 6.4%, from €455.4 million in 2016 to €484.3 million in 2017, primarily due to a €32.6 million or 10.5% increase in corrugated board sales for the reasons described above. External sales of containerboard in Germany decreased by €14.5 million or 12.7%, and other sales in Germany increased by €10.9 million or 36.6%, primarily as a result of sales of electricity produced by the CHP. Corrugated board sales abroad also increased by €42.1 million or 15.2%, from €277.9 million in 2016 to €320.0 million in 2017 for the reasons described above.

	Year ended December 31,		Change
	2016	2017	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Corrugated board (unaudited)	589,246	663,922	12.7
Containerboard	114,256	99,729	(12.7)
Other	29,726	40,605	36.6
Total sales	733,228	804,256	9.7

Total corrugated board sales increased by €74.7 million or 12.7% in 2017 compared to 2016, due to the €32.6 million increase in sales in Germany and €42.1 million increase in sales abroad. External sales of containerboard decreased by €14.5 million or 12.7%, from €114.3 million in 2016 to €99.7 million in 2017, while other sales increased by €10.9 million or 36.6%, from €29.7 million in 2016 to €40.6 million in 2017. Increased sales of electricity produced by the CHP, which were negatively affected by the longer than scheduled CHP shutdown in 2016, also contributed to the increase in other sales. As a result, corrugated board sales as a percentage of total sales further increased from 80.4% in 2016 to 82.6% in 2017, while containerboard sales as a percentage of total sales further decreased from 15.6% in 2016 to 12.4% in 2017.

Increase/(decrease) in finished goods and work in process

Primarily due to higher stocks of containerboard as work in process in 2017, our finished goods and work in progress increased by €10.3 million in 2017.

Other operating income

	Year ended December 31,		Change
	2016	2017	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Investment subsidies	252	252	0.0
Income from other periods	11,204	12,567	12.2
Exchange rate differences	1,920	3,930	104.7
Other income (unaudited)	1,337	854	(36.1)
Other operating income	14,713	17,603	19.6

Other operating income increased by €2.9 million or 19.6% from €14.7 million in 2016 to €17.6 million in 2017, mainly as a result of higher income from exchange rate differences which increased by €2.0 million or 104.7%, from €1.9 million in 2016 to €3.9 million in 2017. Income from other periods also increased by €1.4 million or 12.2%, from €11.2 million in 2016 to €12.6 million in 2017, primarily due to a different timing of refunds for grid charges and energy taxes.

Income from investment subsidies amounted to €0.3 million in 2016 and €0.3 million in 2017 and relates to subsidies we received in connection with the construction of our corrugated board production sites in Schüttorf and Plössberg (both Germany) and which we recognize as other operating income in line with the depreciation of the relevant assets over a period of up to 33 years.

Cost of materials

	Year ended December 31,		Change
	2016	2017	
	(audited) (€ in thousands)		(%)
Cost of raw materials, consumables and supplies	(309,632)	(361,659)	16.8
Cost of purchased services	(61,918)	(68,822)	11.2
Cost of materials	(371,550)	(430,481)	15.9

Cost of materials increased significantly by €58.9 million or 15.9%, from €371.6 million in 2016 (50.7% of sales, or 50.0% of total output) to €430.5 million in 2017 (53.5% of sales, or 51.6% of total output), mainly as a result of a significant increase in the cost of raw materials, consumables and supplies. The main drivers for this increase were predominantly volume based higher costs for externally purchased containerboard, both of a result of the increase in corrugated board sales volumes and higher containerboard prices, and significantly higher prices for recycled paper. See also “—Key Factors Affecting our Results of Operations—Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs—Fluctuations in Raw Material Costs” above.

The cost of purchased services also increased significantly by €6.9 million or 11.2%, from €61.9 million in 2016 to €68.8 million in 2017, due to the reclassification (in 2017 only) of costs for disposal of ash and

rejects from cost of raw materials, consumables and supplies to cost of purchased services to. These costs amounted to €6.8 million in 2016 and €7.8 million in 2017.

Costs for freight brokerage at Logistics (€10.3 million in 2017 compared to €10.1 million in 2016) and energy costs (i.e. electricity, gas and steam), which amounted to €50.5 million in 2017 and €50.5 million in 2016, remained largely stable, while other external services purchased decreased to €0.1 million in 2017 compared to €1.3 million in 2016, due to the reclassification (in 2017 only) of the cost of services for cleaning and surveillance to other operating costs.

Gross profit

Gross profit increased by €33.4 million or 9.0%, from €371.0 million (50.6% of sales, or 50.0% of total output) in 2016 to €404.3 million (50.3% of sales, or 48.4% of total output) in 2017. This increase of our gross profit is primarily due to the increase in sales volumes of corrugated board and higher margins in both our containerboard and corrugated board business.

Personnel expenses

	Year ended December 31,		Change
	2016	2017	
	(audited)		
	(€ in thousands)		(%)
Wages and salaries	(52,627)	(58,294)	10.8
Social security and pensions	(8,795)	(10,032)	14.1
—of which for pension expenses:	(134)	(258)	92.5
Personnel expenses	(61,423)	(68,326)	11.2

Personnel expenses in 2017 increased by €6.9 million or 11.2%, from €61.4 million in 2016 to €68.3 million in 2017, reflecting a €5.7 million or 10.8% increase in wages and salaries and a €1.2 million or 14.1% increase in social security and pensions. These increases were due to (i) a 6.3% increase in the average number of employees (from 978 in 2016 to 1,040 in 2017), primarily related in the hiring of new employees in connection with the launch and subsequent ramp-up at our corrugated board production sites PW10 and PW11 in Trzcínica, Poland and Drizzona, Italy and a slight increase in the number of overhead group positions and (ii) regular annual salary and wage increases.

	Year ended December 31,		Change
	2016	2017	
	(audited)		(%)
Administrative employees	230	248	7.8
Factory workers	748	792	5.9
Average number of employees	978	1,040	6.3

Both the average number of administrative employees and the average number of factory workers increased from 230 and 748, respectively, in 2016 to 248 and 792, respectively, in 2017. The increase in the number of employees related primarily to the launch and subsequent ramp-up at our corrugated board production site (PW10) in Trzcínica, Poland and the hiring of new employees for our new corrugated board production site (PW11) in Drizzona, Italy.

Other operating expenses

	Year ended December 31,		Change
	2016	2017	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Expenses from exchange rate differences	(3,405)	(3,340)	(1.9)
Expenses from other periods	(2,548)	(1,935)	(24.1)
Maintenance and repair (unaudited)	(46,885)	(41,405)	(11.7)
Freight expenses (unaudited)	(61,174)	(61,653)	0.8
Paper machine clothing's (unaudited)	(5,740)	(6,557)	14.2
Rental and leasing costs	(6,396)	(6,624)	3.6
Water and waste water treatment expenses (unaudited)	(6,044)	(7,222)	19.5
Legal and consulting fees (unaudited)	(2,672)	(2,571)	(3.8)
Extraordinary expenses	(921)	(6,240)	577.5
Others (unaudited)	(18,507)	(22,878)	23.6
Other operating expenses	(154,293)	(160,425)	4.0

Other operating expenses increased slightly by €6.1 million or 4.0%, from €154.3 million in 2016 to €160.4 million in 2017, mainly due to significantly higher extraordinary expenses, partly offset by significantly lower expenses for maintenance and repair.

In connection with the implementation of the changes introduced by the BilRUG, we were required to report as other operating expenses those items we previously reported under a separate line item as “extraordinary expenses” in prior periods. See also “—Key Income Statement Items—Other Operating Expenses” above. Extraordinary expenses significantly increased by €5.3 million or 577.5%, from €0.9 million in 2016 to €6.2 million in 2017, primarily as a result of extraordinary expenses we incurred in connection with the offering of the Floating Rate Notes in March 2017 and in connection with the amendments of the Super Senior Revolving Credit Facility and the Existing Senior Secured PLN Facilities and the entry into the Existing Senior Secured IKB Facilities and the Existing Senior Secured GBP Facility in December 2017.

Water and waste water treatment expenses increased by €1.2 million or 19.5%, from €6.0 million in 2016 to €7.2 million in 2017, mainly due to higher fees for waste water treatment at our paper machine (PM2) in Eisenhüttenstadt, Germany. Freight expenses increased slightly by €0.5 million or 0.8%, from €61.2 million in 2016 to €61.7 million in 2017, due to the higher sales volume. Rental and leasing costs increased slightly by €0.2 million or 3.6%, from €6.4 million in 2016 to €6.6 million in 2017 and expenses for paper machine clothings increased by €0.8 million or 14.2%, due to higher requirements to replace paper machine clothings at our paper machine (PM2) in Eisenhüttenstadt, Germany. Finally, “others” increased by €4.4 million or 23.6%, from €18.5 million in 2016 to €22.9 million in 2017, primarily due to (i) the reclassification (in 2017 only) of the cost of services for cleaning and surveillance as “other operating expenses” from “costs of purchased services” within “cost of materials” and (ii) costs incurred in connection with our 25-year anniversary.

Expenses for maintenance and repair decreased by €5.5 million or 11.7%, from €46.9 million in 2016 to €41.4 million in 2017, primarily due to the longer than scheduled maintenance shutdown of the CHP in 2016, while expenses from other periods decreased by €0.6 million or 24.1%, mainly due to scrapping of fixed assets. Legal and consulting fees also decreased by €0.1 million or 3.8% from €2.7 million in 2016 to €2.6 million in 2017.

EBITDA

	Year ended December 31,		Change
	2016	2017	
	(unaudited) (€ in thousands)		(%)
EBITDA ⁽¹⁾	154,679	180,354	16.6

(1) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. While our reported EBITDA therefore excludes the impact of any “extraordinary” items for all periods presented, it has not yet been adjusted for “items of exceptional size or incidence”.

Our EBITDA increased by €25.7 million or 16.6% from €154.7 million in 2016 (21.1% of sales) to €180.4 million in 2017 (22.4% of sales), as a result of the factors described above. Excluding the negative effect of €16.0 million in “items of exceptional size or incidence” (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million (23.2% of sales).

Amortization and depreciation of fixed intangible and tangible assets

	Year ended December 31,		Change
	2016	2017	
	(audited) (€ in thousands)		(%)
Depreciation on intangible assets	(2,856)	(2,821)	(1.2)
Depreciation on tangible assets	(44,516)	(47,212)	6.1
Total amortization and depreciation of fixed intangible and tangible assets	(47,372)	(50,032)	5.6

Amortization and depreciation expenses increased by €2.7 million or 5.6% from €47.4 million in 2016 to €50.0 million in 2017. This increase was primarily due to (i) amortization charges with regard to our corrugated production site in (PW10) in Trzcinica, Poland (which commenced production in April 2017), (ii) one-off amortization charges we recognized on parts of a used corrugator we were not able to use (as originally planned) in connection with the establishment of our new corrugated board production site (PW11) in Drizzona, Italy, as well as (iii) certain maintenance capital expenditure in 2017.

Interest income/(expenses), net

	Year ended December 31,		Change
	2016	2017	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Other interest and similar income	144	65	(54.9)
Interest and similar expenses	(25,334)	(23,678)	(6.5)
Interest income/(expenses), net (unaudited)	(25,190)	(23,613)	(6.3)

Our net interest expense in 2017 decreased by €1.6 million or 6.3% from net expenses of €25.2 million in 2016 to net expenses of €23.6 million in 2017. This decrease was almost entirely due to a decrease in interest and similar expenses by €1.7 million or 6.5% from €25.3 million in 2016 to €23.7 million in 2017, due to lower average interest rates and notwithstanding higher average gross debt in 2017 than in 2016. Liabilities represented by bonds and bank loans were €495 million and €42.5 million, respectively, as of December 31, 2017 compared to liabilities represented by bonds and bank loans of €420 million and €26.3 million, respectively, as of December 31, 2016.

Taxes

	Year ended December 31,		Change
	2016	2017	
	(audited, unless otherwise stated) (€ in thousands)		(%)
Taxes on income	(19,793)	(28,058)	41.8
Other taxes	(1,479)	(1,449)	(2.0)
Total taxes (unaudited)	(21,272)	(29,507)	38.7

Total taxes increased significantly by €8.2 million or 38.7%, from €21.3 million in 2016 to €29.5 million in 2017. Total taxes mainly include trade tax and corporate income tax for the current financial year. Furthermore, total taxes include deferred payments of trade tax and corporate tax for previous years, which amounted to €8 thousand in 2017 and expenses arising from the adjustment of deferred tax assets, which amounted to €4.2 million in 2017.

Consolidated net income/(net loss)

	Year ended December 31,		Change
	2016	2017	
	(audited) (€ in thousands)		(%)
Consolidated net income/(loss) for the period	61,404	72,412	17.9
Consolidated unappropriated retained earnings brought forward	117,062	120,947	3.3
Consolidated net retained profits	178,465	193,358	8.3

Consolidated net income/(loss) for the period increased by €11.0 million or 17.9% from a profit of €61.4 million in 2016 to a profit of €72.4 million in 2017. This was the result of the factors described above.

LIQUIDITY AND CAPITAL RESOURCES

Overview

Our primary sources of financing are cash generated from our operating activities, the Existing Notes, the Additional Notes and drawings under the Senior Secured Facilities. As of the date of this offering memorandum, Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured HSBC Facility and the New Senior Secured Facilities remain undrawn. In addition, we have undrawn capacity of €50 million under the Super Senior Revolving Credit Facility as of the date of this offering memorandum. Our cash requirements consist mainly of debt and tax servicing requirements, the purchase of raw materials, energy and freight, working capital, personnel expenses and capital expenditures.

As of March 31, 2019, we had total financial debt (calculated as bank loans plus finance leases plus bonds, including the Existing Notes) of €702.0 million compared to €674.0 million as of December 31, 2018, €537.5 million as of December 31, 2017 and €455.3 million as of December 31, 2016. As of March 31, 2019, we had cash-in-hand, bank balances in the amount of €136.0 million and net financial debt of €566.0 million (calculated as total financial debt less cash-in-hand, bank balances). We drew the remaining GBP67 million of available commitments under the Existing Senior Secured GBP Facility during the course of May 2019. As a result, as of the date of this offering memorandum, the GBP70 million Existing Senior Secured GBP Facility was fully drawn.

Our ability to generate cash from our operating activities depends on our future operating performance, which is in turn dependent, to some extent, on general economic, financial, competitive, market, regulatory and other factors, many of which are beyond our control, as well as other factors discussed under “*Risk Factors*”. In addition, our ability to draw under the Super Senior Revolving Credit Facility will only be available if, among other things, we meet the financial covenant set out therein. See “*Description of Certain Financing Arrangements—Super Senior Revolving Credit Facility*”.

Although we believe that our expected cash flows from operating activities, capacity under the Super Senior Revolving Credit Facility, future drawings under Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured HSBC Facility and the New Senior Secured Facilities and cash-in-hand, bank balances, will be adequate to meet our anticipated liquidity and debt service needs, we cannot assure you that our business will generate sufficient cash flows from operating activities or that future debt and equity financing will be available to us in an amount sufficient to enable us to pay our debts when due, including the Additional Notes, or to fund our other liquidity needs.

We believe that the potential risks to our liquidity include:

- a reduction in operating cash flows due to a decrease of operating profit from our operations, which could be the result of a downturn in our performance or in the industry as a whole;
- the failure or delay of our customers to make payments due to us;
- risks associated with our expansion and other investment projects, in particular our new paper machine project;
- the failure to realize the expected benefits from our Continuous Improvement Program and from further future optimization initiatives;
- the failure to further maintain a lean cost structure;
- the failure to execute capacity expansion projects successfully;
- any significant unplanned downtime of one or more of our production facilities and/or the CHP adjacent to our paper mill (PM2) in Eisenhüttenstadt;
- a failure to maintain low working capital requirements;
- currency exchange rate fluctuations;
- an increase in variable interest payments or taxes; and
- the need to fund capacity expansion, unexpected replacement capital expenditures and other development capital expenditures.

If our future cash flows from operating activities and other capital resources (including borrowings under our current or any future credit facility) are insufficient to pay our obligations as they mature or to fund our liquidity needs, we may be forced to:

- reduce or delay our business activities and capital expenditures;
- sell certain of our assets;
- obtain additional debt or equity financing; or
- restructure or refinance all or a portion of our debt, including the Additional Notes, on or before maturity.

We cannot assure you that we would be able to accomplish any of these alternatives on a timely basis or on satisfactory terms, if at all. In addition, the terms of the Existing Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the New Senior Secured Facilities, the Additional Notes and any future debt may limit our ability to pursue any of these alternatives.

Cash flows

The following table sets forth our cash flows for the years ended December 31, 2016, 2017 and 2018 and the three-month periods ended March 31, 2018 and 2019.

	Year ended December 31,			Three months ended March 31,	
	2016	2017	2018	2018	2019
	(audited, unless stated otherwise)			(unaudited)	
	(€ in thousands)				
Consolidated net income for the period	61,404	72,412	126,965	32,280	33,411
Amortization and depreciation of fixed assets	47,372	50,032	51,753	12,293	13,839
Increase/(decrease) in provisions	(6,709)	6,183	13,102	(3,155)	(597)
Other non-cash expenses/(income)	(496)	(1,228)	(830)	336	872
(Increase)/decrease in inventories, trade receivables and other assets (not attributable to investing or financing activities)	3,049	(32,056)	(53,407)	(34,110)	(23,458)
Increase/(decrease) in trade payables and other liabilities (not attributable to investing or financing activities)	9,983	(10,431)	3,307	1,779	(2,703)
(Gain)/loss on disposal of fixed assets	510	0	166	—	—
Interest expenses/(income)	25,190	23,613	31,976	5,996	6,070
Expenditure/(income) of exceptional size or incidence	14,835	6,240	3,519	6,900	65
Income tax expenses/(income)	19,793	28,058	54,865	12,310	13,903
Cash payments relating to expenditure of exceptional size or incidence	(11,736)	(2,178)	0	—	—
Income taxes paid	(10,631)	(17,939)	(34,202)	(3,409)	(9,327)
Cash flow from operating activities	152,564	122,706	197,214	31,220	32,075
Proceeds from disposal of intangible and tangible fixed assets	144	150	375	0	0
Payments to acquire intangible fixed assets	(472)	(176)	(407)	(58)	(30)
Payments to acquire tangible fixed assets	(22,976)	(47,762)	(158,965)	(18,666)	(70,899)
Payments to acquire entities included in the basis of consolidation	—	—	—	—	—
Interest received	103	53	48	10	22
Cash flow from investing activities	(23,201)	(47,735)	(158,949)	(18,714)	(70,907)
Free cash flow (unaudited)⁽¹⁾	129,363	74,971	38,265	12,506	(38,832)
Proceeds from the issuance of bonds and borrowings	2,081	173,187	490,575	450,000	30,000
Cash repayments of bonds and borrowings	(75,847)	(83,642)	(352,867)	(1,983)	(2,174)
Proceeds from grants received	313	0	1,345	—	—
Cash payments relating to expenditure of exceptional size or incidence	(4,109)	(3,317)	(8,702)	(3,859)	0
Interest paid	(26,473)	(24,891)	(50,112)	(20,891)	(1,951)
Dividends paid to shareholders of the parent entity	(6,222)	(57,519)	(86,506)	0	0
Cash flow from financing activities	(110,257)	3,818	(6,267)	423,267	25,875
Net change in cash funds	19,106	78,789	31,998	435,773	(12,957)
Effect on cash funds of exchange rate movements	(2,498)	1,787	(1,513)	(319)	519
Cash funds at beginning of period	20,762	37,370	117,946	117,946	148,431
Cash funds at end of period	37,370	117,946	148,431	553,400	135,993

(1) We define free cash flow (not a German GAAP measure) as cash flow from operating activities less cash outflows from investing activities.

Cash flow from operating activities

In the three-month period ended March 31, 2019, our cash flow from operating activities increased by €0.9 million from €31.2 million in the first three months of 2018 to €32.1 million in the first three months of

2019. This increase follows our strong performance and a lower increase in working capital compared to previous year's first quarter. Contrary effects related to the absence of expenditure of exceptional size or incidence in the reporting period compared to the first quarter in 2018. Furthermore, higher income taxes paid impacted cash flows from operating activities.

In 2018, our cash flow from operating activities increased by €74.5 million from €122.7 million in 2017 to €197.2 million in 2018. The increase in our cash flow from operating activities was primarily attributable to our improved EBITDA as a result of our strong operational performance. Contrary effects resulted from a €55.3 million increase in our trade working capital, from €114.2 million as at December 31, 2017 to €169.5 million as at December 31, 2018, as described in more detail below.

In 2017, our cash flow from operating activities decreased by €29.9 million from €152.6 million in 2016 to €122.7 million in 2017, notwithstanding the significant increase in our net income for the period from €61.4 million in 2016 to €72.4 million in 2017. The decrease in our cash flow from operating activities was primarily attributable to the significant increase in our trade working capital, both as a result of a significant increase in inventories, trade receivables and other assets (not attributable to investing or financing activities) and a significant decrease in trade payables and other liabilities (not attributable to investing or financing activities), for the reasons discussed below. A significant increase in income taxes paid (from €10.6 million in 2016 to €17.9 million in 2017), due to higher net income in 2017 and a lower amount of tax loss carry-forwards available to off-set our net income, also contributed to the decrease in our cash flow from operating activities in 2017.

Our cash flow from operating activities is significantly affected by changes in our net working capital. As a result, our cash flow from operating activities can be significantly affected by changes in raw material prices or an increase or decrease of sales volumes as well as payment terms, as those factors affect the amount of inventories, trade receivables and trade payables. The following table sets forth our net working capital as of the dates indicated:

	As of December 31,			As of March 31,
	2016	2017	2018	2019
	(audited, unless otherwise stated)			(unaudited)
	(€ in thousands)			
Trade receivables	59,562	78,859	108,756	128,229
Inventories	73,944	86,864	110,512	108,001
Raw materials, consumables and supplies	51,480	53,985	54,352	54,446
Work in process	18,396	27,671	50,136	46,991
Finished products	4,038	5,061	5,957	6,530
Prepayments	29	147	67	35
Trade payables	(58,020)	(51,524)	(49,787)	(54,430)
Trade working capital (unaudited)⁽¹⁾	<u>75,486</u>	<u>114,199</u>	<u>169,481</u>	<u>181,800</u>

(1) Trade working capital (not a German GAAP measure) we define as trade receivables plus inventories, minus trade payables.

We record a liability under trade payables only if we have received the related supplier invoice by the relevant balance sheet date and provided that all other prerequisites for the recognition as a liability have been met. We record liabilities related to goods or services we have received during the relevant period, but for which we have not yet received an invoice, under other provisions on our balance sheet. These provisions for outstanding invoices amounted to €20.6 million, €22.1 million and €26.3 million as of December 31, 2016, 2017 and 2018, and €33.1 million as of March 31, 2019, respectively.

In the first three months of 2019, our trade working capital increased by €12.3 million, or 7.3%, from €169.5 million as of December 31, 2018 to €181.8 million as of March 31, 2019. Trade receivables increased by €19.5 million, or 17.9%, from €108.8 million as of December 31, 2018 to €128.2 million as of March 31, 2019, mainly due to year-end effects based on lower sales in December. At the same time, the amount of trade payables increased by €4.6 million, or 9.3%, from €49.8 million as of December 31, 2018 to €54.4 million as of March 31, 2019. This increase is primarily related to a higher external containerboard purchases to cover the raw material demand of our growing corrugated board business and our ongoing expansion projects.

In 2018, our trade working capital increased by €55.3 million, or 48.4%, from €114.2 million as of December 31, 2017 to €169.5 million as of December 31, 2018, following the increase in our total output, as well as in the amount of income taxes paid. The increase in our trade working capital is attributable to

(i) a significant increase in our trade receivables, (ii) a significant increase in our inventories and a slight decrease in our trade payables. Trade receivables increased by €29.9 million, or 37.9%, from €78.9 million as of December 31, 2017 to €108.8 million as of December 31, 2018 following our sales growth especially in countries with longer than average payment terms and as a result of a lower forfeiting volume in the fiscal year 2018 due to an already high cash position. The significant increase of €23.6 million, or 27.2%, in inventories from €86.9 million as of December 31, 2017 to €110.5 million is mainly driven by an increase in work in process by €22.5 million as a result of higher volume of stocks at our paper machines and higher volume of stocks of internal purchased containerboard at our corrugated board plants. Furthermore, a higher amount of spare parts led to an increase in raw materials, consumables and supplies. At the same time, the amount of trade payables decreased slightly by €1.7 million, or 3.5%, from €51.5 million as of December 31, 2017 to €49.8 million as of December 31, 2018 due to one-off effects as a result of reporting date factors.

In 2017, our trade working capital increased significantly by €38.7 million or 51.3% from €75.5 million as of December 31, 2016 to €114.2 million as of December 31, 2017, notwithstanding the increase in our total output in 2017 of only 12.4%. Trade receivables increased by €19.3 million or 32.4% from €59.6 million as of December 31, 2016 to €78.9 million as of December 31, 2017 due to (i) significantly higher sales volumes towards year end 2017 compared to year end 2016, mainly as a result of our corrugated board production site (PW9) in Plössberg, Germany completing its ramp-up phase in 2017 and the fast ramp-up of our corrugated board production site (PW10) in Trzcinica, Poland during 2017, following commencement of commercial production in April 2017, as well as (ii) significantly higher prices for our corrugated board products at year end 2017 compared to year end 2016, and (iii) timing effects at year end 2016 and 2017. Inventories also increased significantly by €12.9 million or 17.5% from €73.9 million as of December 31, 2016 to €86.9 million as of December 31, 2017, mostly as a result of a €9.3 million or 50.4% increase in work in process from €18.4 million as of December 31, 2016 to €27.7 million as of December 31, 2017. This increase in work in process as of yearend 2017 relates to (i) our additional corrugated board production site (PW10) in Trzcinica, Poland, which commenced production in April 2017 as well as (ii) a planned extended maintenance shutdown of our paper machine (PM1) in Burg, Germany. In anticipation of this planned shutdown, we already started to increase stock levels of the relevant containerboard grades produced by our paper machine (PM1) to be able to continue to meet the relevant containerboard sourcing requirements of our corrugated board production during the planned extended shutdown. Inventories of finished products also increased by €1.0 million or 25.3% from €4.0 million as of December 31, 2016 to €5.1 million as of December 31, 2017, both as a result of the higher volume of finished goods and the increase in the price for our finished goods at year end 2017. At the same time, the amount of trade payables decreased significantly by €6.5 million or 11.2% from €58.0 million as of December 31, 2016 to €51.5 million as of December 31, 2017, notwithstanding a significant increase in our raw material sourcing requirements in 2017 due to the increase in our corrugated board production and significantly higher prices for recycled paper and recycled containerboard in 2017 compared to 2016. The lower amount of trade payables at year end 2017 was primarily due to a high amount of trade payables as of December 31, 2016 related to the construction of our corrugated board production site (PW10) in Trzcinica, Poland.

Cash flow from investing activities

Cash flows from investing activities generally consist of cash outflows for investments in tangible and intangible fixed assets as well as cash inflows from the disposal of fixed assets as well as interest received concerning financial assets and cash in hand.

In the first three months of 2019, our cash outflow from investing activities increased by €52.2 million, or 278.9%, from €18.7 million in the first three months of 2018 to €70.9 million in the first three months of 2019. This increase was primarily due to the start of skeleton construction works for our new paper machine project (PM3) as well as investments into our corrugated board plants (PW12 and PW13) in Ellesmere Port, United Kingdom and Eisfeld, Germany, each as described in more detail below. Smaller investments in different plants as part of our continuous maintenance capital expenditures also contributed to the overall increase.

In 2018, our cash outflows from investing activities significantly increased by €111.2 million, or 233.0%, from €47.7 million in 2017 to €158.9 million in 2018. These cash outflows related to capital expenditures in connection with our new paper machine project (PM3) in Sandersdorf-Brehna, Germany, our new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom, our corrugated board project (PW13) in Eisfeld, Germany, the replacement of the sizer at our paper machine (PM1) in Burg, Germany,

our new corrugated board production site (PW11) in Drizzona, Italy and the extension of our existing corrugated board plant (PW6) in Offenbach, Germany, each as described in more detail below. Furthermore, we have made several smaller investments in our other existing production sites as part of our continuous maintenance capital expenditures. As a result, investments in tangible fixed assets significantly increased by €111.2 million from €47.8 million in 2017 to €159.0 million in 2018.

In 2017, our cash outflows from investing activities increased by €24.5 million or 105.7%, from €23.2 million in 2016 to €47.7 million in 2017. This is due to the higher cash outflows due to payments to acquire tangible fixed assets related to the establishment of our corrugated board production sites (PW10, PW11 and PW12) in Trzcinica, Poland, Drizzona, Italy and Ellesmere Port, United Kingdom in 2017. Cash outflows from investing activities in 2016 primarily related to cash outflows due to payments to acquire tangible fixed assets in connection with the establishment of our corrugated board production site (PW10) in Trzcinica, Poland.

We primarily finance our maintenance capital expenditures with cash flow from operating activities. From time to time, we have also financed our expansion capital expenditures through borrowings. The following table sets forth our capital expenditures for the years ended December 31, 2016, 2017 and 2018 and for the three-month periods ended March 31, 2018 and 2019:

	Year ended December 31,			Three months ended March 31,	
	2016	2017	2018	2018	2019
	(audited, unless otherwise stated)			(unaudited)	
	(€ in thousands)				
Payments to acquire fixed assets (capital expenditures)					
(unaudited)	23,448	47,938	159,372	18,724	70,929
Payments to acquire tangible fixed assets	22,976	47,762	158,965	18,666	70,899
Payments to acquire intangible fixed assets	472	176	407	58	30

As discussed in more detail under “*Business—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments*” and “*—Key Factors Affecting our Results of Operations—Expansion Projects and Investment Program*” above, our strategy involves significant additional investments to further expand both our corrugated board and containerboard production capacities.

In the first three months of 2019, capital expenditures increased significantly by €52.2 million, or 278.8%, from €18.7 million in the first three months of 2018 to €70.9 million in the first three months of 2019, primarily due to (i) €53.1 million of capital expenditures in connection with the start of skeleton construction works for our new paper machine (PM3) and (ii) €3.1 million and €6.0 million of capital expenditures related to our corrugated board plant projects (PW12 and PW13) in Ellesmere Port, United Kingdom and Eisfeld, Germany, respectively.

Capital expenditures of €159.4 million in 2018 primarily relate to (i) €63.6 million of capital expenditures in connection with the start of construction works for our new paper machine project (PM3) in Sandersdorf-Brehna, Germany, (ii) €54.0 million of capital expenditures in connection with the establishment of our new corrugated board production “mega plant” (PW12) in Ellesmere Port, United Kingdom (which commenced production in January 2019), (iii) €9.4 million of capital expenditures in connection with the start of construction works for our new corrugated board production site (PW13) in Eisfeld, Germany, (iv) €7.3 million of capital expenditures in connection with the replacement of the sizer at our paper machine (PM1) in Burg, Germany and (v) €3.4 million of capital expenditures in connection with the extension of our existing corrugated board plant (PW6) in Offenbach, Germany.

Capital expenditures of €47.9 million in 2017 primarily reflect (i) €16.0 million of capital expenditures in connection with the establishment of our corrugated board production site (PW10) in Trzcinica, Poland (which commenced production in April 2017), (ii) €8.5 million in 2017 of capital expenditures in connection with the establishment of our new corrugated board production site (PW11) in Drizzona, Italy (which commenced production in early March 2018) and (iii) €11.6 million of capital expenditures in connection with the ongoing construction of our corrugated board production site (PW12) in Ellesmere Port, United Kingdom (following the start of construction in October 2017).

Payments of capital expenditures of €23.4 million in 2016 primarily relate to our €22.1 million investment in connection with the establishment of our corrugated board production site (PW10) in Trzcinica, Poland, on land we purchased from our large customer Janmar Centum adjacent to its existing packaging plant.

Free cash flow

We define free cash flow as cash flow from operating activities less cash outflows from investing activities. Free cash flow comprises the cash surplus or deficit after expenditure on investments and taxes but before net cash used in/provided by financing activities, and before taking into account cash proceeds and payments relating to shareholders' equity and financial liabilities. The reasons for changes in the free cash flow are therefore the same as explained above. In the first three months of 2019, our free cash flow decreased by €51.3 million from a cash inflow of €12.5 million in the first three months of 2018 to a cash outflow of €38.8 million in the first three months of 2019. In 2018, our free cash flow decreased by €36.7 million from a cash inflow of €75.0 million in 2017 to a cash inflow of €38.3 million in 2018. In 2017, our free cash flow decreased by €54.4 million from a cash inflow of €129.4 million in 2016 to a cash inflow of €75.0 million in 2017.

Cash flow from financing activities

In the first three months of 2019, we reported a cash inflow from financing activities of €25.9 million, compared to a cash inflow of €423.3 million in the first three months of 2018. Cash flows from financing activities in the first three months of 2019 mainly related to €30 million of drawings under the Existing Senior Secured Commerzbank Facilities to finance the ongoing construction of our new paper machine (PM3) and interest paid as well as scheduled repayments under the Existing Senior Secured PLN Facilities. The high cash inflows of €423.3 million in the first three months of 2018 primarily relates to the issuance of the Existing Notes in March 2018, with the majority of the proceeds only used in May 2018 to redeem the Issuer's €345,000,000 5.125% senior secured fixed rate notes due 2022.

In 2018, we reported a cash outflow from financing activities of €6.3 million, mainly as a result of (i) the €352.9 million repayment of bonds and borrowings, which related to the redemption of the Issuer's €345,000,000 5.125% senior secured fixed rate notes due 2022 on May 1, 2018 and scheduled repayments under the Existing Senior Secured PLN Facilities (€7.9 million), (ii) a €86.5 million special dividend payment to JH-Holding and our minority shareholders for the purpose of enabling JH-Holding to redeem all of its then-remaining €81.1 million outstanding principal amount of its PIK toggle notes on June 1, 2018, (iii) €50.1 million of interest paid, including interest payments under the Issuer's senior secured notes as well as bank loans and lump sum fee payments (€19.3 million) to JH-Holding and our minority shareholders in return for granting security over their shares in the Issuer to secure our obligations under our various financing arrangements, as well as (iv) €8.7 million of cash outflows related to payments relating to expenditure of exceptional size or incidence due to extraordinary expenses (transaction costs, advisory and professional fees and others) we incurred in connection with the issuance of the Existing Notes in March 2018 and the negotiation and execution, in the third quarter of 2018, of Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured HSBC Facility to finance a portion of our paper machine project (PM3) at Sandersdorf-Brehna, Germany. These cash outflows from financing activities more than offset cash inflows in 2018 relating to proceeds of bonds and borrowings of €490.6 million, including (i) €450 million from the offering of the Existing Notes in March 2018, (ii) €38.5 million of borrowings under the Facility A and the Facility B under the Existing Senior Secured IKB Facilities and (iii) GBP3 million (carrying amount as of December 31, 2018: €3.5 million) of borrowings under the Existing Senior Secured GBP Facility. The amount repayable under Facility A under the Existing Senior Secured IKB Facilities was subsequently reduced from €8.5 million to €7.2 million as of December 31, 2018 a result of a €1.3 million KfW repayment grant, which we reported as proceeds from grants received in 2018.

In 2017, we reported a cash inflow from financing activities of €3.8 million, mainly as a result of (i) the excess proceeds from the €150 million aggregate principal amount of the Floating Rate Notes due 2024 issued in March 2017, after application of a portion of the proceeds to redeem €75 million aggregate principal amount of the Issuer's senior secured floating rate notes due 2022 and payment of costs, fees and expenses for the offering and (ii) PLN 92.0 million of drawings under the 2016 Senior Secured PLN Facility in 2017 in connection with the completion of our corrugated board production site (PW10) in Trzcinica, Poland. These cash inflows from financing activities more than offset (i) €57.5 million in dividends distributed to our shareholders, including a €55.0 million special dividend in April 2017, which

enabled JH-Holding, together with cash-in-hand, bank balances, to purchase €43.9 million aggregate principal amount of the PIK Toggle Notes in a tender offer and subsequently transfer such PIK Toggle Notes to JH-Holding Finance SA for cancellation, (ii) €8.9 million of payments in relation to a former finance lease agreement for the corrugator at our corrugated board production site (PW9) in Plössberg, Germany, including €1.5 million in regular payments during the course of 2017 and €7.4 million in payments upon termination of the financing lease agreement in December 2017, as well as (iii) PLN 36.4 million in scheduled repayments under the Existing Senior Secured PLN Facilities.

In 2016, we reported a cash outflow from financing activities of €110.3 million as a result of the early optional redemption of €75.0 million in principal amount of the Floating Rate Notes, €26.5 million in interest payments and €6.2 million in dividends distributed to our shareholders.

Liquidity management

While we intend to primarily meet our liquidity requirements with cash generated from our operating activities and drawings under Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured HSBC Facility and the New Senior Secured Facilities, we expect to have sufficient capacity available under the Super Senior Revolving Credit Facility to be able to meet any additional operating requirements. As of the date of this offering memorandum, we have undrawn capacity of €50 million under the Super Senior Revolving Credit Facility.

Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities and the Existing Senior Secured HSBC Facility will remain undrawn on the date of this offering memorandum. We may utilize the €25.0 million Facility C under the Existing Senior Secured IKB Facilities, the €25.0 million Existing Senior Secured SaarLB Facility and the €45.0 million Facility A under the Existing Senior Secured Commerzbank Facilities until August 10, 2019. For more details about the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured Commerzbank Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured IKB Facilities*”, “*Description of Certain Financing Arrangements—Existing Senior Secured SaarLB Facility*” and “*Description of Certain Financing Arrangements—Existing Senior Secured Commerzbank Facilities*”. We may utilize the €30.0 million Existing Senior Secured HSBC Facility until one month before December 31, 2023. For more details about the Existing Senior Secured HSBC Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured HSBC Facility*”.

The utilization of the New Senior Secured Facilities is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the Additional Notes. As a result, the New Senior Secured Facilities will remain undrawn on the issue date of the Additional Notes. We may utilize the €30 million, €30 million and €15 million under the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility until June , 2021, May, 2020 and May, 2020, respectively. For more details about the New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank Facility*”, “*Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities*” and “*Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility*”.

To manage our liquidity, we maintain a largely centralized cash management system, which includes all our subsidiaries. In particular, liquidity plans are prepared with the Group budget on a monthly rolling period for the upcoming 12 months in which the expected cash receipts and payments for the specified time period are set off against each other. The upcoming four weeks are planned two times per month and include a deviation analysis.

OFF-BALANCE SHEET ARRANGEMENTS

The following discussion describes our material off-balance sheet arrangements.

Forfaiting Program

Our subsidiary Progroup Board GmbH finances a portion of its trade receivables through an off balance sheet forfaiting program with CommerzFactoring GmbH. Under the forfaiting program it sells trade receivables to CommerzFactoring GmbH on a non recourse basis in return for immediate cash payments. The forfaiting transactions occur up to a maximum aggregate transaction volume of €15 million. As of March 31, 2019, no trade receivables were sold under the forfaiting program.

CONTRACTUAL OBLIGATIONS

Financing Arrangements

As of March 31, 2019, on a *pro forma* basis to give effect to the Offering and the intended use of proceeds therefrom as described under “*Use of Proceeds*”, namely the proposed redemption of our Floating Rate Notes, the third party financing arrangements of the Group would have been as follows:

	Commitments ⁽¹⁾⁽²⁾⁽³⁾						
	Total	<1 Year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	>5 Years
	(unaudited) (€ in thousands)						
Additional Notes offered hereby ⁽⁴⁾	150,000	—	—	—	—	—	150,000
Existing Notes ⁽⁴⁾	450,000	—	—	—	—	—	450,000
Super Senior Revolving Credit Facility	—	—	—	—	—	—	—
Existing Senior Secured Commerzbank Facilities ⁽⁵⁾	30,000	—	—	4,000	4,000	4,000	18,000
Existing Senior Secured GBP Facility ⁽⁶⁾	3,495	—	—	—	—	—	3,495
Existing Senior Secured IKB Facilities ⁽⁷⁾	37,155	1,469	4,813	4,813	4,813	4,813	16,437
Existing Senior Secured PLN Facilities ⁽⁸⁾	31,356	9,045	11,254	11,057	—	—	—
Total indebtedness⁽⁹⁾	702,006	10,514	16,067	19,870	8,813	8,813	637,932

- (1) As adjusted to give effect to the Offering and the intended use of proceeds therefrom as described under “*Use of Proceeds*”, namely the proposed redemption of our Floating Rate Notes, in each case as if they had taken place as of March 31, 2019.
- (2) Table does not show any drawings under Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities or the Existing Senior Secured HSBC Facility. Facility C of the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility, Facility A of the Existing Senior Secured Commerzbank Facilities and the Existing Senior Secured HSBC Facility will remain undrawn on the date of this offering memorandum. We may utilize the €25.0 million Facility C under the Existing Senior Secured IKB Facilities, the €25.0 million Existing Senior Secured SaarLB Facility and the €45.0 million Facility A under the Existing Senior Secured Commerzbank Facilities until August 10, 2019. For more details about the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured Commerzbank Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured IKB Facilities*”, “*Description of Certain Financing Arrangements—Existing Senior Secured SaarLB Facility*” and “*Description of Certain Financing Arrangements—Existing Senior Secured Commerzbank Facilities*”. We may utilize the €30.0 million Existing Senior Secured HSBC Facility until one month before December 31, 2023. For more details about the Existing Senior Secured HSBC Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured HSBC Facility*”.
- (3) Table also does not show any drawings under the New Senior Secured Facilities. The utilization of the New Senior Secured Facilities is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the Additional Notes. As a result, the New Senior Secured Facilities will remain undrawn on the issue date of the Additional Notes. We may utilize the €30 million, €30 million and €15 million under the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility until June, 2021, May, 2020 and May, 2020, respectively. For more details about the New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank Facility*”, “*Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities*” and “*Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility*”.
- (4) Represents the aggregate principal amount of Additional Notes to be issued in the Offering and Existing Notes, respectively.
- (5) As of March 31, 2019, €15 million and €15 million, respectively, in borrowings under Facility B and Facility C of the Existing Senior Secured Commerzbank Facilities remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under Facility B and Facility C of the Existing Senior Secured Commerzbank Facilities. For more details about the Existing Senior Secured Commerzbank Facilities, including scheduled repayments on the Existing Senior Secured Commerzbank Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured Commerzbank Facilities*”.
- (6) As of March 31, 2019, GBP3 million (carrying amount at March 31, 2019: €3.5 million, calculated based on an exchange rate of €1.00 = GBP 0.8583, which was the exchange rate of the British pound against the euro reported by the European Central Bank on March 31, 2019) in borrowings under the Existing Senior Secured GBP Facility were outstanding. As of the date of this offering memorandum, we have fully utilized the Existing Senior Secured GBP Facility and GBP70 million of borrowings were therefore outstanding under the Existing Senior Secured GBP Facility. For more details about the Existing Senior Secured GBP Facility, including scheduled repayments on the Existing Senior Secured GBP Facility, see “*Description of Certain Financing Arrangements—Existing Senior Secured GBP Facility*”.

- (7) As of March 31, 2019, €7.2 million and €30.0 million, respectively, in borrowings under Facility A and Facility B of the Existing Senior Secured IKB Facilities remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under Facility A and Facility B of the Existing Senior Secured IKB Facilities. For more details about the Existing Senior Secured IKB Facilities, including scheduled repayments on the Existing Senior Secured IKB Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured IKB Facilities*”.
- (8) As of March 31, 2019, PLN 58.9 million (carrying amount at March 31, 2019: €13.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on March 31, 2019) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 76.0 million (carrying amount at March 31, 2019: €17.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility. The adjusted figures do not reflect PLN 5.4 million and PLN 4.0 million, respectively, in scheduled repayments under the 2015 Senior Secured PLN Facility and the 2016 Senior Secured PLN Facility we will be required to make on June 30, 2019. For more details about the Existing Senior Secured PLN Facilities, including scheduled repayments on the Existing Senior Secured PLN Facilities, see “*Description of Certain Financing Arrangements—Existing Senior Secured PLN Facilities*”.
- (9) Total indebtedness excludes obligations under our off-balance sheet forfaiting program. See “*—Off-Balance Sheet Arrangements*” above.

Other Contractual Obligations

In addition, we have other contractual obligations incurred in the ordinary course of business, such as power supply agreements, maintenance agreements and agreements for the provision of other services. As of December 31, 2018, the minimum amount of undiscounted future payments under operating leases and for other financial obligations (total payment obligations) were as follows:

	As of December 31, 2018
	(unaudited)
	(€ in thousands)
Operating leases	8,239
Other financial obligations	287,584
Total payment obligations	295,823

We lease forklifts and trucks pursuant to operating leases that are not recorded on our balance sheet. These operating leases typically have a term of between three and six years, and the total remaining payment obligations under those leases amounted to €8.2 million as of December 31, 2018. In addition, we have entered into leasing agreements for other property as well as for commercial real estate. The total remaining lease payments under those leasing agreements amounted to €16.1 million as of December 31, 2018.

As of December 31, 2018, we also had contractual off-take obligations under recycled paper and containerboard supply agreements, which amount to €46.3 million for the remainder of 2019. In addition, as of December 31, 2018, our contractual obligations under energy supply agreements amounted to €8.1 million for the remainder of 2019. Furthermore, as of December 31, 2018, we had commitments under open purchase orders amounting to €217.0 million.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to a number of different market risks arising from our normal business activities.

Based on our assets, liabilities and pending and planned transactions, we are particularly exposed to risks arising from changes in exchange rates, interest rates and commodity prices, as well as credit risks, such as the risk of default by counterparties. Furthermore, solvency must be assured at all times (liquidity risk). The objective of risk management is to use appropriate measures to control these risks where they affect our cash flows. Derivative financial instruments are used only for hedging purposes. They are not used for trading or speculative purposes. Exchange effects resulting from the translation of financial statements in foreign currencies into our reporting currency are not hedged. The guidelines for risk hedging and their implementation are defined and continuously monitored by our Group Treasury Management department.

Raw material price risks

Raw material price risks result primarily from increases in the prices of recycled paper and containerboard, which cannot fully be passed on to customers through higher sales prices or can only be passed on to customers with a time lag of two to three months.

Energy price risks

Energy price risks result primarily from fluctuations in global energy prices and regulatory risks in Germany and other markets in which we operate.

Currency risk

The foreign currency risk is due to the increasing internationalization of the Group and is an additional risk that has increasing relevance as a result of the increased volatility in global interest rate and currency markets relevance. We primarily generate our sales in euro. In our foreign subsidiaries where the euro is not the local currency, there is a currency risk as these subsidiaries generate their sales mainly in local currencies but their material costs are mainly measured in euro. Currency risk also arises on trade receivables and payables in foreign currencies. Furthermore, there are currency risks due to the euro-financing of foreign subsidiaries. Throughout the years 2016, 2017 and 2018 and the first three months of 2019, there were currency risks mainly in the British pound, Polish zloty and Czech koruna relative to the euro.

Interest rate risk

Currently, interest rate risks arise mainly on interest-bearing liabilities that are denominated in euro.

We expect that our exposure to interest rate fluctuations will relate primarily to potential drawings under our €50 million Super Senior Revolving Credit Facility, our drawings under the GBP70 million Existing Senior Secured GBP Facility as well as potential drawings under our €30 million Existing Senior Secured HSBC Facility and our €30 million New Senior Secured Erste Bank Facility. From time to time, we will evaluate the necessity of future interest rate hedging.

Credit risks

Credit risks arise mainly on trade receivables, bank balances and derivative financial instruments. In view of our relatively diversified customer list, which extends over various regions, the impact arising from credit risk on trade receivables is limited. Further, the trade receivables of some of our subsidiaries are credit insured up to the limit the credit insurer approves.

To minimize the credit risks from the operational business activity, transactions with customers are only entered into after an internal credit check and a credit approval process. Based on the internal credit check, a limit for a maximum credit risk per customer is established.

SIGNIFICANT ACCOUNTING POLICIES

In preparing our consolidated financial statements, assumptions and estimates have been made which affect the amounts and presentation of the assets and liabilities recognized in the statement of financial position, income and expenses, and contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that may require a material adjustment to the carrying amount of our assets and liabilities in future periods.

By “significant”, we mean that the following accounting policies are both important to the portrayal of our financial condition and results and require management’s subjective judgments, often as a result of the need to estimate the effects of matters that are inherently uncertain. We discuss the impact and risks associated with these significant accounting policies on our business operations throughout this discussion and analysis where such policies affect our reported and expected financial results. You should note that the preparation of our financial statements requires us to make estimates and assumptions that affect the reported amount of assets and liabilities, disclosure of contingent assets and liabilities at the date of our financial statements and the reported amounts of revenue and expenses during each reporting period.

All assumptions and estimates are made according to the best of management’s knowledge and belief in order to present a true and fair view of our net assets, financial position and results of operations. Since the actual values may, in individual cases, differ from the assumptions and estimates that were made, these are continuously reviewed. Adjustments to the estimates that are relevant for the financial statements are made in the period in which the change occurs, provided that the change relates only to this period. If the change relates not only to the reporting period but also to subsequent periods, the change is taken into account both in the period of the change and in the subsequent periods.

Tangible Fixed Assets

Tangible fixed assets are measured at cost (including production costs and borrowing costs) less depreciation. Production costs include material cost, manufacturing costs and exceptional manufacturing costs, reasonable and necessary material and production overheads, general and administrative costs and expenses for social services, voluntary social contributions and company pensions. Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are included in the cost of that asset. Depreciation is generally calculated on a straight-line basis. Straight-line depreciation rates are increased by 50% for fixed assets which are used throughout the year in three-shift operations or more.

Investment Grants

Investment grants (*Investitionszuschüsse*) are separately recorded as special reserve on our balance sheet under “Investment Grants for Fixed Assets” and reversed on a pro rata basis in accordance with useful life of the fixed asset being subsidized. Investment bonuses (*Investitionszulagen*) have been recorded in our income statement as other operating income at the time they are earned.

Emission Allowances

The German government has granted us a certain number of free emission allowances. These were acquired free of charge as part of public allocation. We have recognized these emission allowances at their nominal amount (zero) rather than at their fair market value, which German GAAP would have allowed us to do. The fair value of the allowances recognized at a carrying amount of zero amounted to €3.5 million as of December 31, 2016, €4.7 million as of December 31, 2017 and €15.5 million as of December 31, 2018.

Valuation of Inventories

Raw materials, consumables and supplies are measured at actual cost or, taking into account the principle of lower of cost or market value, at lower market values as of the relevant reporting date. Appropriate valuation allowances are applied to inventories which are obsolete, second-hand, damaged or slow moving (€1.6 million in 2016, €1.8 million in 2017 and €8.7 million in 2018-).

Goods-in-progress and finished goods are measured at production cost. Production costs of goods-in-progress comprises, in addition to direct manufacturing and material costs, appropriate portions of overhead costs. Appropriate valuation allowances are applied to obsolete, second-hand, damaged or slow-moving inventories.

Receivables and Other Assets

Receivables and other assets are recognized at their nominal value or at their lower fair value as of the balance sheet date. Appropriate valuation allowances are provided for receivables whose recoverability is associated with identifiable risks; irrecoverable receivables are written off in full. To cover the general default and credit risk, a global valuation allowance of 1% is recognized on domestic and foreign receivables (net of value added tax) which are not subject to a specific valuation allowance.

Pension provisions

Pension provisions for entitlements and current pension obligations are calculated using the Projected Unit Credit (PUC) Method. They are calculated pursuant to section 253, paragraph 1, clause 2, section 253, paragraph 2 and section 246, paragraph 2 of the German Commercial Code (*Handelsgesetzbuch, HGB*). Actuarial opinions have been furnished. Calculations are based on the “Guide tables 2018 G” of Dr. Klaus Heubeck and an interest rate of 3.21% in 2018 (2017: 3.68%, 2016: 4.03%, in each case based on the “Guide tables 2005 G”).

Anticipated salary increases are reflected at a rate of 2.0% for 2018, 2017 and 2016. Pension increases is reflected at a rate of 2.0%, 2.0% and 0.0%, respectively, for 2016, 2017 and 2018. A fluctuation rate of 0.0% was used.

As of December 31, 2018, pension obligations for which provision were required to be recognized amounted to €1.4 million. A pledged pension liability insurance policy was classified as a plan asset. After offsetting the fair value of the plan asset with the present value of the defined benefit obligation the

unfunded defined benefit obligation has been disclosed as pension provision (€173 thousand in 2017 and €280 thousand in 2018).

Tax and Other Provisions

Tax and other provisions are recognized for all identifiable risks and uncertain liabilities at settlement amount. They are recorded at an amount in line with a reasonable business assessment. All risks arising up to the balance sheet date and identifiable up to the date of preparation of the financial statements have been taken into account. Provisions with a remaining term in excess of one year are discounted at the average market interest rate for the last seven financial years as published by the German Central Bank (*Deutsche Bundesbank*) corresponding to their remaining maturity.

In order to calculate deferred taxes due to the temporary differences between accounting for assets and liabilities for commercial law purposes and for tax purposes or due to tax loss carry-forwards, the amounts of the resulting tax charges or reductions are measured using the tax rates of the individual companies over the time that the differences are phased out and not discounted. Deferred tax assets and liabilities are offset against each other and are carried in the balance sheet at their nominal amounts.

Deferred tax assets on tax losses carried forward were recognized to the extent that the underlying tax planning confirmed that the amounts recognized could be utilized to reduce tax liabilities in the next five years.

SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN GERMAN GAAP AND IFRS

Our consolidated financial statements included elsewhere in this offering memorandum have been prepared on the basis of German GAAP, which differ in certain respects from IFRS. The following paragraphs summarize certain significant differences between German GAAP and IFRS as of December 31, 2018.

The organizations that promulgate IFRS have ongoing projects that could have a significant impact on future comparisons of German GAAP and IFRS. This description is not intended to provide a comprehensive listing of all such differences specifically related to us or the industry in which we operate. IFRS are generally more restrictive and more comprehensive than German GAAP regarding recognition and measurement of transactions, account classification and presentation and disclosure requirements. We have not attempted to identify all disclosure, presentation or classification differences that would affect the manner in which transactions and events are presented in the consolidated financial statements or the notes thereto included elsewhere in this offering memorandum.

We have not prepared audited consolidated financial statements in accordance with IFRS. Accordingly, we cannot assure you that the differences described below would, in fact, be the accounting principles creating the greatest material differences between our consolidated financial statements prepared under German GAAP and under IFRS. In addition, we cannot estimate the net effect that applying IFRS would have on our results of operations or our financial position, or any part of them, in any of the presentations of financial information in this offering memorandum. The effect of such differences may be material and, in particular, it may be that the total shareholders' equity (capital deficit) and net income prepared on the basis of IFRS would be materially different due to these differences.

Financial Statement Presentation

Under IFRS, the presentation of the balance sheet is based on a current/non-current distinction of assets and liabilities. IFRS requires the presentation of assets and liabilities in order of liquidity only when a liquidity presentation provides information that is reliable and is more relevant than a current/ non-current presentation. Under German GAAP, the presentation of the balance sheet is based on the liquidity of the assets and liabilities. This results, for example, in the different presentation of financial assets and liabilities and deferred taxes in the statement of financial position under IFRS and German GAAP.

Unlike IFRS, German GAAP does not require the presentation of the statement of comprehensive income and it is very common (but not required) that the income statement under the German GAAP will be prepared using the "nature of expense" method and not the "cost of sales" method, which is generally used in the IFRS financial statements. In addition, the disclosures required in the explanatory notes to the financial statements are far more extensive under IFRS than under German GAAP.

Consolidation Principles

Under IFRS, capital consolidation has to follow the acquisition method, with identifiable assets and liabilities being measured at their acquisition-date fair values.

Under German GAAP, capital consolidation was required to be reported using the carrying amount method until 2009. From 2010, the acquisition method and valuation by acquisition date fair values was introduced into German GAAP.

Under IFRS, an entity (investor) is required to consolidate another entity (investee), depending on whether it controls the investee. An investor controls an investee when it has power over an investee, is exposed, or has rights to the variable returns from its involvement and due to his power can influence the amount of these variable returns. The consolidation conclusions under IFRS will not differ significantly from the German GAAP regulations for the most straightforward entities. However, some differences may arise where there are complex group structures or where specific entities have been established. Investors that are most likely affected have their involvements, for example, in the following entities:

- Entities with a dominant investor without a majority of the voting or similar rights and where the rest of voting rights belongs to the widely-dispersed shareholders (de-facto control);
- Structured entities (formerly “special purpose entities”) where voting or similar rights are not the dominant means to determine the power.

Under German GAAP, an investor is required to consolidate the investee if an investor holds the majority of voting rights, enjoys the right to appoint or dismiss the majority of the management and supervisory board members, enjoys the right to exercise a controlling influence on financial and operating policies or in substance obtains the majority of risks and rewards of an investee that has a narrow, well-defined purpose (“special purpose entity”).

Business Combination

Under IFRS 3 acquisition related cost (transaction cost) that incurs to effect a business combination are accounted as expenses in the periods in which the costs are incurred and the services are received.

Acquisition-related costs are not part of the consideration transferred to the seller in return for the business; they are not part of the fair value of the acquired business; they do not represent an asset of the acquirer. Acquisition-related costs represent services that have been rendered to and consumed by the acquirer. As such, IFRS 3 states that they are accounted for as an expense when the acquirer consumes the related service.

Under German GAAP certain cost which have been incurred after the decision to acquire an entity qualify for capitalization and form part of the acquisition cost (e.g. due diligence cost, consultancy cost for valuation reports). All expenses incurred prior to the decision making have to be expensed as incurred.

Costs related to the issuance of financial liabilities are expensed as incurred. Optionally, interest-like expenses are capitalized and amortized over the term of the debt.

For purchase price allocation all identifiable assets, liabilities, and contingent liabilities of the subsidiaries are reflected at their fair value regardless of the level of minority share. Under IFRS 3, goodwill acquired in a business combination, must be allocated to a cash generating unit (CGU) or group(s) of CGUs. A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Under German GAAP goodwill is allocated to the respective business unit to which it refers.

Under IFRS goodwill is not amortized but tested for impairment annually and if there is an indication that goodwill may be impaired.

The recoverable amount of the CGU is compared with its carrying amount. Recoverable amount is defined as the higher of an asset’s fair value less costs of disposal and its value in use. If the recoverable amount of an asset or CGU is less than its carrying amount, an entity should reduce the carrying amount to the recoverable amount. The reduction is an impairment loss. For assets carried on the depreciated historical cost basis the impairment loss should be recognized in profit or loss immediately. For assets that are carried at revalued amounts an impairment loss is treated as a revaluation decrease. The loss is first set against any revaluation surplus relating to the asset in other comprehensive income to the extent of the surplus and the remaining balance of the loss (if any) is then treated as an expense in profit or loss.

German GAAP requires goodwill to be amortized over its economic life. Goodwill should be reviewed for impairment and its remaining useful life once a year. Goodwill is impaired if its carrying amount exceeds its fair value.

Property, plant and equipment

Under IFRS, the recorded acquisition cost of property, plant and equipment includes appropriate dismantling, removal and restoration costs. Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset are capitalized as part of the cost of that asset. Overhead costs, such as general and administrative costs and expenses for social services, voluntary social benefits and company pensions are not part of the production cost. Under IFRS, individual items within property, plant and equipment are frequently composed of different component parts with varying useful lives or consumption patterns. These parts are individually replaced during the useful life of an asset. Under IFRS, each such part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is recognized and depreciated separately (component approach). Costs of required and regular major inspections are capitalized and depreciated if it is probable that future economic benefits associated with the item will flow to the reporting entity and the cost of the item can be measured reliably. After initial recognition IFRS further offers an option to value items of property, plant and equipment at either the (lower) cost of the item less any accumulated depreciation and impairment or at its fair value at the date of revaluation less any subsequent accumulated depreciation and impairment.

Under German GAAP, property, plant and equipment is initially valued at purchase or production cost and includes general and administrative costs and expenses for social services, voluntary social benefits and company pensions. Capitalization of costs directly attributable to the acquisition, construction or production of a qualifying asset is permitted, but not required (alternative treatment). The component approach is not specifically contemplated by German GAAP rules, but its use for balance sheet purposes is generally permitted. Costs of regular major inspections are recognized in the income statement as incurred. A revaluation model is not permitted. Costs of demolishing or restoring an item of property, plant and equipment do not qualify for capitalization but are required to be reported as provision over the item's useful life. After initial recognition, property, plant and equipment are accounted for at cost less any accumulated depreciation.

Government Grants

Under IFRS, government grants related to a particular asset are recorded on the balance sheet either as deferred income or by deducting the grant in arriving at the carrying amount of the asset.

Under German GAAP, government grants related to a particular asset are recorded on the balance sheet either as deferred income or by deducting the grant in arriving at the carrying amount of the asset. Alternatively, a grant may be recorded as other income in the income statement on the grant date.

Business Start-up and Expansion Expenses

Under German GAAP, expenses for the start-up and expansion of a business, if incurred prior to the end of 2009, were permitted to be capitalized and amortized over a period of four years in accordance with section 269 of the German Commercial Code (*Handelsgesetzbuch, HGB*). In the subsequent periods, a similar to IFRS accounting approach for recognition of the business start-up and expansion expenses is applied.

Under IFRS, expenses for start-up and expansion of a business do not qualify for capitalization and have to be expensed in the income statement at the time of incurrence.

Impairment of Assets

Under IFRS, an impairment loss is recognized if the recoverable amount of an asset is less than its carrying amount. An asset's recoverable amount is the higher of an asset's or cash generating unit's fair value less cost of disposal and its value in use. The recoverable amount is determined for an individual asset unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets.

Under German GAAP, an impairment loss for non-current assets must only be recorded if a permanent impairment in value is anticipated. The concept of cash generating units is not applicable under German

GAAP, and the impairment loss is determined on an item-by-item basis. An impairment loss is to be recognized when the carrying amount of an asset exceeds its fair value.

Provisions, Other Liabilities and Contingencies

Some provisions in the financial statements under German GAAP will be required to be reported as other liabilities in accordance with IFRS. Under IFRS, provisions are recognized if an enterprise has a present obligation as a result of a past event, it is probable (*i.e.*, more likely than not to occur) that an outflow of resources will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. In cases where the outflow of economic resources is expected to occur, an obligation will be reported as a liability. The discount rate used to determine the amount of any provisions is determined by reference to a pre-tax interest rate for a risk-free obligation that matches the maturity of the liability to which the provision relates.

Under German GAAP, the criteria for the recognition of provisions and contingencies are less detailed and prescriptive than under IFRS. Accordingly, there is greater flexibility under German GAAP to record provisions for onerous contracts and restructuring expenses. In addition, German GAAP estimates are typically made in a more conservative manner. The recognition of a provision with a probability lower than 50% is possible. German GAAP requires the recording of provisions for deferred maintenance that is expected to be performed within three month after the end of the reporting period, uncertain liabilities and expected losses from executory contracts. Long-term provisions (*i.e.*, with a maturity of more than one year) are discounted using an average market interest rate for the preceding seven years as published by the German Central Bank (*Deutsche Bundesbank*).

Under IFRS, acquisition costs for property, plant and equipment include the initial estimated costs of dismantling and removing the item and restoring the site on which it is located. The corresponding restructuring provision is required to be made at its present value. Under German GAAP, restructuring provisions are build up incrementally over the useful life of the acquired property, plant or equipment at a discounted settlement amount.

Valuation of Assets and Liabilities; Currency Translation

Under IFRS, initial recognition and subsequent measurement of financial assets and liabilities—if qualified as financial assets and liabilities at fair value through profit and loss—is required at its fair value. Foreign currency receivables and liabilities are measured at fair value.

Under German GAAP, current financial assets are required to be recorded at acquisition cost and financial liabilities are required to be recorded at repayment cost. Current receivables and liabilities in foreign currency are measured at fair value. The valuation of non-current currency receivables and liabilities with a maturity more than one year has to be in line with lower of cost or market principle and higher carrying amount at the balance sheet date respectively.

Interest-Bearing Loans and Borrowings; Prepaid Expenses

Under IFRS, all interest-bearing loans and borrowings are initially recorded at the fair value of the consideration received, less directly attributable transaction costs. After initial recognition, interest bearing loans and borrowings are measured at amortized cost using the effective interest method.

Under German GAAP, interest-bearing loans and borrowings are recorded at their repayment amounts. Transaction costs, except for costs to be paid to the finance providers, are expensed as incurred. Only equivalent to interest transaction costs paid to finance providers are deferred as prepaid expenses and amortized on a straight-line basis to interest expense.

Sales, Trade Receivables

Under German GAAP in effect as of January 1, 2016, the definition of “sales” includes all revenue derived from the regular business activities of the reporting entity.

Under IFRS, “revenue from certain ancillary business activities is recorded as “other operating income”, rather than “sales”.

For IFRS, the standard (IFRS 15) sets a five-step-model for recognizing revenue from contracts with customers 1. Identify the contract with customer, 2. Identify the performance obligations in the contract,

3. Determine the transaction price, 4. Allocate the transaction price to the performance obligations,
5. Recognise revenue when (or as) each performance obligation is satisfied.

Under German GAAP, valuation allowances for losses on individual trade receivables must be recorded. In addition, a general provision for doubtful accounts—reflecting the general default risk of receivables—has to be recorded. Under IFRS, the recording of such a general provision for doubtful allowances would be prohibited.

Leasing

Under IFRS until December 31, 2018, a lease had to be classified either as an operating lease or as a finance lease. A finance lease was a lease that transfers substantially all the risks and benefits incident to ownership of the leased item. For finance leases, the lessee recorded an asset and an obligation at an amount equal to the lower of the fair value of leased property and the present value of the minimum lease payments. Operating leases were expensed as incurred.

With implementation of IFRS 16, starting for periods after January 1, 2019, lessee has a right of use asset and contrary a liability.

The right-of-use asset is a lessee's right to use an asset over the life of a lease. The asset is calculated as the initial amount of the lease liability, plus any lease payments made to the lessor before the lease commencement date, plus any initial direct costs incurred, minus any lease incentives received.

The amortization period for the right-of-use asset is from the lease commencement date to the earlier of the end of the lease term or the end of the useful life of the asset. An exception is when it is reasonably certain that the lessee will exercise an option to purchase the asset, in which case the amortization period is through the end of the asset's useful life.

If a right-of-use asset is determined to be impaired, the impairment is immediately recorded, thereby reducing the carrying amount of the asset. Its subsequent measurement is calculated as the carrying amount immediately after the impairment transaction, minus any subsequent accumulated amortization.

At the termination of a lease, the right-of-use asset and associated lease liability are removed from the books of the lessee. The difference between the two amounts is accounted for as a profit or loss at that time.

Under German GAAP, accounting for leases is mainly driven by tax regulations, so the lease contracts in Germany typically consider such rules in order to avoid capitalization at the lessee level. These rules differ from the IFRS rules in several respects.

Provisions for Pensions

Under IFRS, provisions for defined benefit pension obligations are accounted for under the projected unit credit method. The defined benefit obligation is measured using various actuarial assumptions, including assumptions as to future compensation and benefits levels. Under IFRS, the discount rate reflects the long-term view of the plan and not current rates that could be used to settle the pension obligation. This discount rate is derived at the reporting date based on then current capital market conditions. Under one of the options provided by IFRS, remeasurement gains and losses that result from changes in actuarial assumptions (including changes in mortality tables) or actual experience that differs from the underlying assumptions do not require recognition of gains and losses as components of net pension cost of the period in which they arise. Rather they are recognized in other comprehensive income, which will never be reclassified in profit or loss in the future.

Pension reserves under German GAAP are also be accounted for under the projected unit credit method since the enactment of the German Accounting Law Modernization Act in 2009. Under German GAAP, the discount rate used represents a ten-year average of market derived interest rates (until 2015: seven-year average market derived interest rate). In addition, German GAAP requires recognition of the remeasurement gain or losses in profit and loss and not as other comprehensive income as required under IFRS.

Deferred Taxes

Deferred tax assets (DTA) and deferred tax liabilities (DTL) are the income taxes recoverable or payable in future years. They are mainly based on the taxable or deductible temporary differences between the

carrying amount of an asset or liability and the respective tax base. Due to the IFRS accounting principles, the carrying amount of an asset or liability can differ from the amount under German GAAP. Accordingly the respective deferred tax assets and liabilities change as well.

Under German GAAP, net DTL must be recognized in full, while the recognition of net DTA is optional. Unlike German GAAP, IFRS does not provide an option to capitalize net DTA and, therefore, both net DTA and net DTL have to be recognized in the respective period.

Under IFRS, DTA shall also be recognized for tax loss carryforwards to the extent that it is probable that future taxable profit will be available. Under German GAAP, the capitalization of DTA for loss carryforward shall only be taken into consideration if the tax benefit from the tax loss carryforward can be expected to be recovered within the next five years.

Derivative Financial Instruments and Hedging

Under IFRS, derivative financial instruments are recorded in the consolidated balance sheets at fair value (marked-to-market). Any gains or losses arising from changes in the fair value of derivatives are taken directly to the income statement, except for the effective portion of cash flow hedges, which is recognized in other comprehensive income and reclassified to profit or loss for the period when the forecast transaction being hedged occurs. Under IFRS, the criteria to be met to qualify for hedge accounting are quite strict. This includes stringent documentation requirements.

Under German GAAP, there is more flexibility to include forecast transactions in hedge accounting. Further, there is no need to separately account for fair values of derivative financial instruments that qualify for hedge accounting (net hedge presentation method).

INDUSTRY AND COMPETITION

The following overview of the European market for containerboard and corrugated board was prepared based on independent third-party reports and publicly available data from reputable industry organizations. Certain information in the following overview has been obtained from official and non-official third party sources believed by us to be reliable, including sources not specifically prepared for us and studies commissioned by us. However, since such information is unavoidably subject to certain assumptions and estimates made by third parties, there can be no assurance as to the accuracy or completeness of information included and it should not be relied upon. As certain economic data may have been collected on a sample basis or estimated by the authors of the relevant reports, all figures included in this section should be assumed to include estimated information.

In addition, certain statements below are based on our own proprietary information, insights, subjective opinions or unsubstantiated estimates, and not on any third party or independent source; these statements contain words such as “we estimate”, “we expect”, “we believe” or “in our view”, and as such do not purport to cite to or summarize any third-party or independent source and should not be so read. Some market data is inherently forward-looking and subject to uncertainty and does not necessarily reflect actual market conditions. You should read the following discussion together with the sections entitled “Industry and Market Data”, “Risk Factors”, “Business” and “Forward-Looking Statements”.

INTRODUCTION

Containerboard is one of the principal materials used to manufacture corrugated board and, ultimately, corrugated containers. Containerboard is classified according to the type of raw materials from which it is made (virgin fibres or recycled fibres), whether it is surface treated and whether it is enhanced by coating.

Two types of containerboard can be produced. Containerboard made from virgin fibres (wood pulp) is known as “kraftliner” and is—depending on the type of application—better suited for manufacturing corrugated board and containers intended for the retail and consumer packaging markets, owing to its greater strength, especially its high bursting strength, moisture resistance and purity. Containerboard made from recycled fibres (recycled paper, the primary source of which is old corrugated containers and mixed recycled paper), is known as “testliner” and fluting and is better suited for transportation and industrial packaging, due to its higher stiffness, lower weight and cheaper price.

Containerboard is classified as kraftliner as long as it contains mainly virgin fibres. Several distinct types of containerboard products are available in the market, resulting from different formulations of virgin and recycled fibres. This broad offering of containerboard products serves to address a wide range of potential packaging applications.

Both kraftliner and testliner can be surface treated to improve printing quality through the use of white, mottled or fully bleached pulp as the top layer (white-top liner). The board can also be coated, which makes it more resistant to dirt and moisture, and allows high-gloss printing. This further enhances product appearance and suitability for retail and consumer packaging.

Virtually all containerboard becomes corrugated board, in the form of linerboard and fluting. Linerboard is used for the inner and outer layers of the corrugated board and fluting for the middle section. Corrugated board producers select containerboard grades, specifications and suppliers based on availability, suitability for their own corrugators and converting machines as well as on brand owners’ performance requirements. The retail industry, through its own specific requirements, has also been one of the key drivers for containerboard and corrugated board technology and product development.

For corrugated box and sheet producers, containerboard is one uniform market as corrugated board can consist of a mixture of any type of linerboard or fluting depending on end use and quality requirements. Corrugated board can come in a range of types, including single face, single wall, double wall, or triple wall, depending on the ultimate packaging application.

Corrugated board is eventually converted by corrugated box producers into regular slotted containers (RSC), die-cut boxes or other containers, and sold to brand owners or packers before reaching retailers and end-consumers. The main end-use segment in Europe is food and beverages, although the breakdown varies by country. Kraftliner is used especially in the food segment, where strength and purity are important requirements, whereas testliner is generally used in non-food fast-moving consumer goods and consumer durables.

The industry is typically viewed as comprising two main production activities: (i) the production of containerboard and corrugated board; and (ii) the conversion of corrugated board into corrugated

containers or other fibre-based packaging products. There are several operating models within the containerboard and corrugated board industry. The majority of containerboard suppliers are forward integrated such that they also operate in corrugated board and box conversion. This can allow a greater degree of control over raw material flows and pricing. Others keep a more restricted focus on particular high-value sections of the production process, and distribute products to independent sheet plants.

We focus on the highly efficient production and processing of standardized grades and customized small batch series of corrugated board sheets for our mostly family-owned customers in the packaging industry. We believe we differentiate ourselves from other market participants (*i.e.*, fully integrated paper and packaging producers) through our strategic focus on those elements of the value chain that bring added-value to our customers in the packaging industry, *i.e.*, the efficient and integrated production of containerboard and corrugated board. Progroup, although we have the ability to produce kraftliner, focuses on testliner production for the European market.

In Western Europe, recycled paper is the main raw material for the production of recycled containerboard and other fibre packaging boards. Recycled containerboard constitutes approximately 83% of containerboard production, with kraftliner constituting the remainder. In Europe, containerboard manufacturers tend to source the majority of their raw materials from external suppliers.

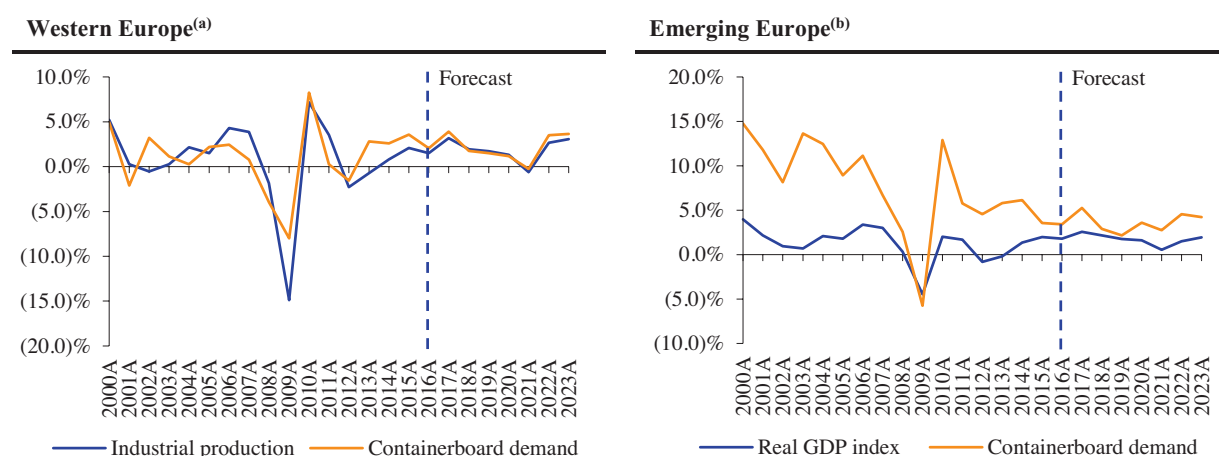
INDUSTRY FUNDAMENTALS AND DRIVERS

The containerboard and corrugated board industry is relatively capital intensive and competitive. Long-term demand for these products is driven by global economic trends, demographic trends, technological developments and trends in end-user preferences. Profitability is sensitive to changes in prices, and industry profit cycles reflect the constantly shifting balance between supply and demand for individual products.

Macro demand drivers and industry trends

A number of factors underlie the growth of corrugated packaging, the end product of containerboard and corrugated board. In general, the growth of the general economy, industrial production and merchandise trade are the main demand drivers for containerboard and corrugated board packaging. Private consumption as well as the increased use of substitutes (e.g. plastic) also drive the development of retail sales.

The charts below show the evolution of Euro area industrial production and containerboard demand growth in Western Europe, and the evolution of Euro area GDP and containerboard demand growth in Emerging Europe, based on available data from RISI.



(a) Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Monaco, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, UK

(b) Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Malta, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Turkey, Ukraine

Source: RISI (European Paper Packaging Forecast—15 years (September 2018))

Historically, there has been a strong correlation between GDP growth, industrial production and demand growth for recycled containerboard. In Western Europe, demand has grown faster than industrial production since 2012 and reached its peak in late 2017/early 2018, with a deceleration in the later part of the year and an expected decrease in growth rates between 2019 and 2020. In Eastern Europe, growth rates have been consistently, and significantly above GDP growth since 2000 and the demand growth is expected to continue in the medium term, despite uncertainties in the shorter term, with demand decelerating in 2018 mainly due to Turkey and slower growth in Central Europe.

Demographic and lifestyle changes, including rising urbanization and demand for convenience, such as take-aways and home deliveries, have driven growth in demand for corrugated packaging, and will continue to do so especially in Emerging Europe (defined as Central, Eastern and Southeastern Europe by RISI). The effect of improvements in living standards and consumer spending in Emerging Europe and other emerging markets will support growth going forward. Development of the retail infrastructure in these markets, including online shopping and mail order, and the development of the logistics market, is expected to increase demand for containerboard products such as die-cut containers, shelf-ready packaging and decorative corrugated pieces. In addition, the booming agro-based sector, for example, will create new demand for containerboards by replacing the traditional wooden boxes with corrugated containers.

Containerboard demand will also be increasingly exposed to the general tendency to reduce packaging costs, with, for example, light weighting and reduced packaging. Plastics and returnable/reusable transit packs (RTP) will increasingly compete with corrugated board packaging, especially in mature markets and especially for the fresh fruit and vegetable markets. The future competitiveness of fibre-based packaging will depend on innovation, product development, cost and the industry's ability in general to respond to changing market requirements.

The competitive position of containerboard and corrugated board is expected to remain relatively strong in comparison with alternative materials. Recyclability, for example, will have a favorable impact on containerboard demand growth. The high recovery and recycling rate of wood fibre-based packaging compared to plastics will benefit the industry. The poor environmental image of plastics coupled with its higher cost are also expected to have a positive impact on the demand prospects for fibre-based packaging in mature markets.

Some of the newer products, such as microflutes, will support the use of containerboards and corrugated boards in the competition against folding cartons. Retail- and shelf-ready packaging has opened new opportunities for corrugated board and has brought it closer to the consumers. Logistic and shelf space planning are key competitive advantages against other packaging substrates.

Recycled containerboard capacity has steadily gained share of the Western European containerboard market over the last 15 years. The share of these grades rose from approximately 77% during the last years of the 1990s to approximately 83% in 2018. The growing importance of recycled containerboard has been driven by a variety of reasons, including i) lower prices of both PfR and recycled containerboard versus virgin grades (partly due to subsidies for energy uses); ii) improving quality of testliner products and kraftliner substitutes; iii) efforts by consumer goods companies to burnish their sustainability and consumer demand for recycled products leading to a surge in kraftliner substitutes; iv) market undersupply of unbleached kraft pulp.

Like Western Europe, the containerboard market in Emerging Europe is dominated by recycled grades. Usage of recycled containerboard has increased substantially as a share of the total over the last 15 years within Emerging Europe. Recycled products represented 60% of regional containerboard consumption in the last years of the 1990s, but the share reached almost 80% in 2018. Expanding availability of high-quality recycled grades, partially from Western European suppliers, and a greater focus on sustainability were major drivers of the rising share of recycled products.

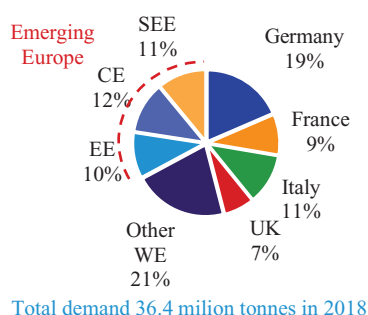
Containerboard is generally a regional business, and the majority of the volumes is traded within Europe. However, some regions, such as the Middle East and North Africa, are net importers of containerboard. Hence, the demand from exports of the containerboard market is partially influenced by the evolution of the EUR/USD exchange rate.

END-MARKETS DYNAMICS

Demand for corrugated containers is primarily driven by the need for (i) packaging products for the transportation of a diverse range of consumer and industrial goods, such as processed and fresh food, agricultural products, beverages, industrial and consumer electronics, chemicals and pharmaceuticals and a

range of other products and (ii) higher value-added corrugated products, such as those featuring enhanced graphics used for point-of-sale displays and consumer and shelf-ready packaging.

In Europe, the main markets are the developed Western European countries such as Germany, Italy, France, Spain and the United Kingdom. Poland and other Eastern European countries are much smaller markets, but are anticipated to grow at a faster rate than the more developed markets.



Note: Other Western Europe: Andorra, Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Luxembourg, Monaco, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Central Europe: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia, Eastern Europe: Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia, Ukraine, Southeastern Europe: Albania, Bosnia, Bulgaria, Croatia, Cyprus, Macedonia, Malta, Montenegro, Romania, Serbia, Turkey

Source: RISI (European Paper Packaging Forecast—5 years (March 2019))

In Europe, fast moving consumer goods account for approximately 55% of corrugated board consumption (according to Vision Hunters), offering certain stability against economic fluctuations. However, there are clear differences between countries. Industrial products are the primary driver in Germany while food and consumer goods dominate in the United Kingdom and France. Germany is expected to remain the largest single market in the Western Europe corrugated box industry over the next 15 years. The continuing strength of the German industrial sector is predicted to boost corrugated box usage by 2.6% annually through 2026 according to Vision Hunters, which is the second highest forecasted growth rate of any country in Western Europe after Austria.

Key supply parameters

Containerboard is manufactured either by treating virgin fibres or by cleaning and screening recycled fibres before passing these through paper machines, which are comprised of a paper-forming section, a press section (where water is squeezed out), a drying section and the finishing. The containerboard is then wound into rolls and shipped to corrugated board plants.

Containerboard mills are large, capital expenditure intensive production facilities and the production landscape is continuously changing as a result of new capacity additions and closures. As there is a significant lead time between the planning and completion of new containerboard machines, the supply side tends to lag behind changes in demand.

Furthermore, the containerboard production process is reasonably specialized, such that there is very limited flexibility to switch from containerboard production to the production of other paperboard grades, or from kraftliner to testliner (or vice versa), in response to market conditions.

Corrugated sheets are interim products manufactured from containerboard at a sheet feeder plant or an integrated corrugated and converting plant. Corrugated sheets are then converted into corrugated containers at integrated converting plants or at sheet plants. The corrugated sheet is first printed, if required, and then formed into the final container (or box) shape usually by some combination of die-cutting, folding, gluing, stapling or stitching the sheet. Corrugated containers are designed specifically to meet individual customer requirements and there is a wide variety of designs available.

Corrugated sheets are bulky products, which tend to be produced and supplied locally due to high transportation costs, requirements of customers for supply chain integration and just-in-time delivery. The economic supply distance for corrugated sheets is typically around 300 kilometers. Therefore, there are many corrugated board plants and the market in Europe is more fragmented than the containerboard market.

Since the early 2000s, there has been a significant development in the European containerboard industry and its asset base: more than 15 new machines have started up, all of which are capable of producing the full range of recycled fibre grades. This is part of a constant push towards increasing efficiency and lowering manufacturing costs in order to ensure competitiveness. These manufacturing costs are exposed to raw material prices and availability (recycled paper vs. virgin pulp). The response from the suppliers has been to use cheaper raw materials both in containerboard and corrugated packaging production.

There have been shut-downs in Europe, but these have typically been of old and narrow machines with weak cost competitiveness and suboptimal trim fit and/or product portfolio. Shut-downs have typically been part of companies' asset strategy, and their volumes have typically been compensated by capacity increases in other production units. The production landscape is described in greater detail below.

The European containerboard and corrugated board industry has experienced several trends affecting product and product construction as well as production process. Some of the trends originate from the end-users (retail, consumers and brand-owners), but the industry itself has also managed to introduce new concepts. All these trends have raised the status of corrugated board from pure transportation packaging closer to retail and even consumer packaging. The key trends can be listed as follows:

- Light weighting, which has extended to both containerboard and corrugated board. This is a response to transportation cost pressure, as well as industry evolution and a trend towards eco-efficiency;
- Small flutes and multiwall constructions are partly related to the light weighting as the introduction of lower basis weight fluting has enabled the microflute concept and use of corrugated in consumer packages as well as increasing need in heavy duty applications;
- Die-cuts and point-of-sales (POS), which is to satisfy the demand for retail ready packaging;
- White-top liners and high-quality printing are for direct use consumer packages and shelf ready packaging; printing requirements are increasing in industrial packaging; and
- Wider corrugators have been introduced to improve the efficiency at corrugated plants and better fit with new containerboard machines.

Pricing dynamics

Containerboard prices are primarily a function of the prevailing supply-demand balance (in this respect, additional growth has resulted from the strong increase in e-commerce volumes), raw material prices and other operating costs, such as energy, chemicals and transportation.

Demand for containerboard has tended to develop in line with industrial growth rates due to the characteristics of the main end-user markets for corrugated containers. In contrast, the supply side of the containerboard market is fairly inelastic owing to capital intensity, long lead times between planning and completion of a mill and the low versatility of the paper machines. This can result in temporary supply/demand imbalances driving prices up and down, such as those which have been experienced in recent years.

Another driver of containerboard prices is the cost of the principal raw materials: recycled paper or virgin fibre. While wood prices historically have been relatively stable, recycled paper prices can vary widely on a regional basis depending on demand and tend to be volatile even within short time periods. Fluctuations in Asian demand (particularly Chinese demand) and seasonal patterns of collection and demand have been the principal factors driving the recycled paper price in recent years. Given the significant implications of price fluctuations of recycled paper on business performance, we (as well as several other industry participants) have therefore sought better access to recycled paper through a broad supplier portfolio including access to box plant clippings and direct supply contracts with municipalities or retailers from time to time. The cost of producing containerboard is also influenced by the prices of energy, starch, chemicals and transportation. Energy prices, in particular electricity, oil and natural gas, have experienced significant volatility in recent years, with a corresponding effect on paper production costs.

Containerboard is the main cost factor of corrugated sheets and of corrugated packaging overall. Therefore, corrugated sheets price usually follows containerboard price development with some delay, typically by about two to three months.

KEY MARKET DEVELOPMENTS

The corrugated box market in Western Europe has largely recovered from the economic crisis that impacted the region after 2008: the 2007 pre-crisis demand peak for corrugated box was crossed in 2014. Total box shipments amounted to 40.6 billion m² in 2018, 0.8 billion m² more than in 2017. RISI is expecting growth to continue albeit at a slower pace in the future, with 1.7% and 1.3% growth forecasted for 2019 and 2020, respectively. Over the long run, European shipments are expected to grow by 2.6% annually between 2016 and 2026 according to Vision Hunters' early 2018 study (with Western Europe, Central Eastern Europe, and Southeastern Europe growing by 2.3% p.a., 4.1% p.a. and 3.8% p.a., respectively).

On the back of this market environment, leading producers of containerboard and corrugated board have announced and implemented several price hikes throughout 2017 and the beginning of 2018. The total price increase in recycled containerboard in 2017 amounted to 100 to 110 €/ton. In the beginning of 2018, only part of the announced 50 to 60 €/ton price increase in recycled containerboard was implemented in Continental Europe. Driven by a slow-down in demand during the latter part of 2018, prices reduced across most of Continental Europe markets during both the end of 2018 and beginning of 2019, with a 120 €/ton decrease between Q4 2018 and May 2019. Prices are expected to stabilise in the second half of 2019.

Demand development in Europe

Western Europe

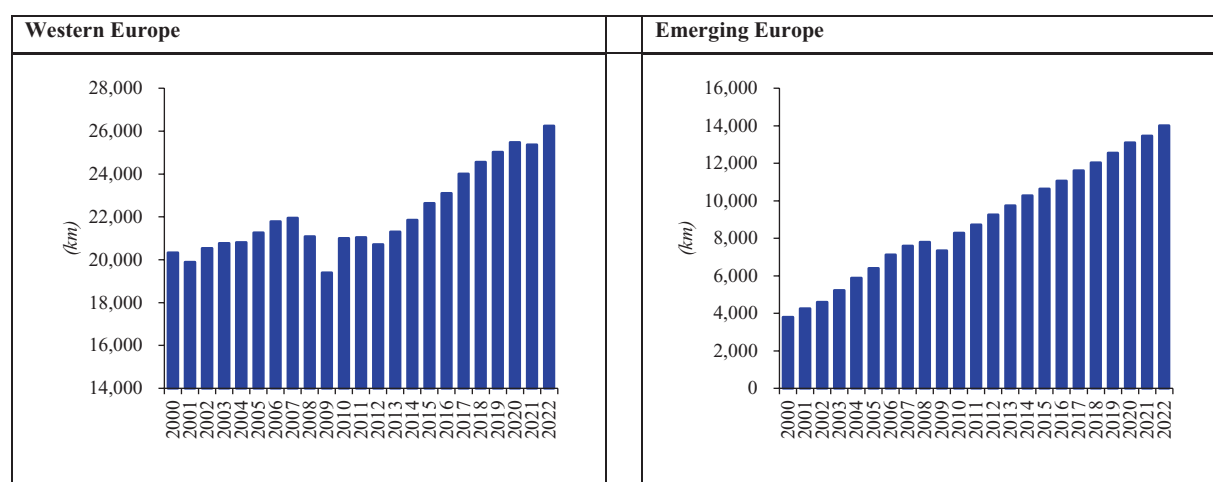
Containerboard usage in Western Europe had been experiencing solid growth. There was an uptick in demand in 2017 due to accelerating industrial production and increased consumer spending followed by strong growth in the first half of 2018, with the regional apparent consumption reaching 24.6 million tons in 2018, a 2.3% yearly growth in Western Europe. Following a deceleration in demand growth over the second half of 2018, RISI predicts growth in containerboard demand to continue upwards in the following two years, albeit at a slower rate.

Emerging Europe

Growth in containerboard usage in Emerging Europe has continued over the past several years. However, the rate of increase has fallen to less than half of that registered over the last 17 years as a whole, from 7.3% per year (2000-2017) to 2.9% per year in 2018. Regional containerboard consumption reached 12.0 million tons in 2018 versus only 3.8 million tons in 2000.

Within Emerging Europe, our core market is the Central European region, which has been the major driving force for Emerging Europe demand in recent years. Apparent containerboard consumption growth in the region was 4.5%, 7.4% and 2.5%, for 2016, 2017 and 2018, respectively, and the region is expected to continue to grow at an average 4% between 2019 and 2023, per RISI.

The charts below show the evolution of containerboard consumption, by volume, in Europe between 2000 and 2020.



Source: RISI (European Paper Packaging Forecast—15 years (November 2018))

Corrugated board consumption has grown faster by sheet area than by volume during the past years due to the trend towards lighter basis weights. This trend is expected to continue in the future with corrugated board based on light-weight containerboard showing higher growth rates than the overall market, and future market growth expected to approximate the levels between 2002 and 2007.

Containerboard supply developments and operating rates evolution in Europe

Western Europe

Net capacity expansion in the Western European containerboard industry came to a halt between 2007 and 2013 after expanding rapidly during the 1990s and first half of the last decade. In the past year there has been moderate growth. New capacity has continued to come on stream, mainly in lightweight recycled and white-top grades, but older, inefficient capacity has been shut. Regional capacity hit 24.4 million tons in 2007 and was still 24.6 million tons in 2013, according to RISI; since then it has grown to 27.1 million tons (2017). RISI expects capacity growth of 3.5%, 2.1% and 3.1% in 2019, 2020 and 2021, respectively.

Operating rates peaked in 2006 at 95% in Western Europe before dropping sharply to a bottom of 87% in 2009. Strong capacity management on the part of producers kept operating rates from sliding further, with RISI's numbers showing a 2% reduction in industry capacity in 2009. The continuing focus on capacity management has been instrumental in enabling operating rates to rebound back to the long-term average of 93% in 2010-2017. RISI shows that capacity utilization raised to above 96% in 2017 and reduced slightly to 95% in 2018.

Capacity expansion is expected to continue growing over the next several years, although at a lower rate than previously expected due to a lessening in demand and weaker macro conditions. The majority of the projects announced during the year are converted graphic paper machines, along with incremental upgrades of existing containerboard capacity although less than initially announced. Additional new capacity has been announced, e.g. Progroup's PM3 in Sandersdorf-Brehna (Germany) and Papierfabrik Palm's machine in Aalen (Germany), both adding further 750kt capacity each by 2020 and 2022 respectively.

RISI expects containerboard operating rates to decline to 93% in Western Europe in 2019 (from 96% in 2017) with anticipated oversupply in Central Europe and Italy creating downward pressure on containerboard and PfR prices. Operating rates are expected to stabilize to approximately 92% in the long-term, similar to the historical long-term average.

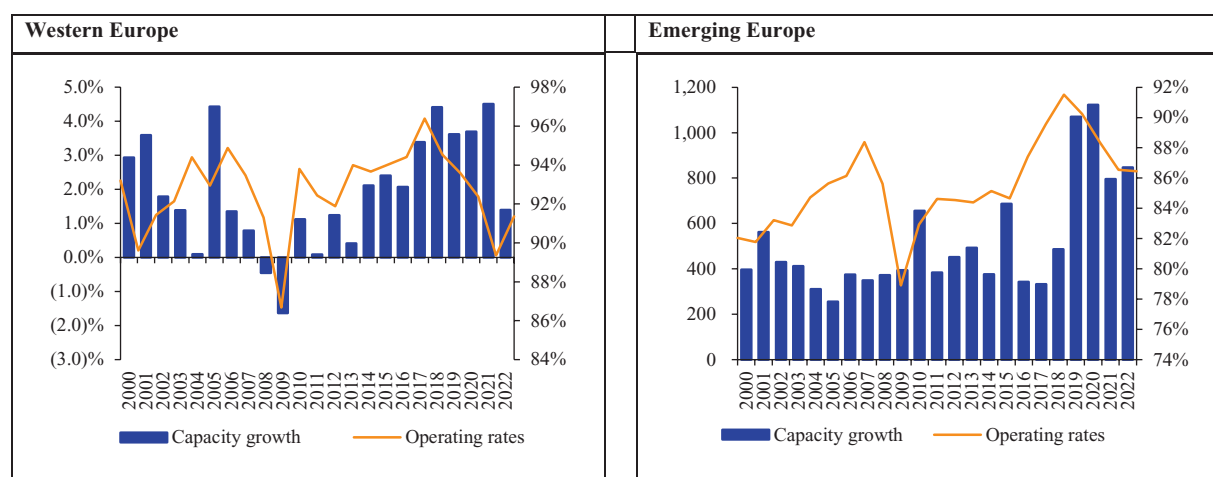
Eastern Europe

Containerboard capacity has expanded steadily in Emerging Europe since 2000, averaging growth of 424,000 tons per year. Most of the investment in the earlier part of this period involved rebuilds of existing machines to both increase capacity and improve quality. Over the past few years, new, state-of-the-art

machines have been added, mainly in Central Europe and Turkey. Closures of existing, inefficient capacity offset a substantial portion of the capacity originating from the new machines. Regional containerboard capacity reached more than 12.7 million tons in 2018, up from just 5.1 million tons in 2000. The majority of the total expansion has been in the recycled sector.

Operating rates in Emerging Europe improved consistently from 2000 to 2007, rising from 82% to 89%. The abrupt flattening in domestic demand in 2008-2009, along with a loss of share to imports from Western Europe and continuing investment in new capacity, resulted in regional capacity utilization decreasing to 79% in 2009. However, operating rates rebounded over the next four years, returning to 84% in 2013, and increasing to 90% in 2018. This rate is expected to be at around 89% in the next five years.

Capacity is expected to continue expanding over the next several years in Emerging Europe, although growth in certain sub-regions like Central Europe is expected to be limited due to raw material availability, even if more than 3 million tonnes in capacity growth are expected in the long-term.



Source: RISI (European Paper Packaging Forecast—15 years (November 2018))

Containerboard price development in Europe

Testliner prices have trended upward during the last 15 years, although extreme volatility has tended to mask this trend. Real prices (in 2016 euros) averaged €382/ton in the latter part of the 1990s and have been around €479/ton over 2013 - 2017 and peaked to €552/ton in 2018. The range in real prices during the last 20 years has been from a peak of €552/ton in 2018 to a low of €321/ton in 2009. Both the trend and the range in real prices have been closely related to movements in recycled paper costs, which have been erratic on an annual basis and rising in real terms on a secular basis.

Strong demand for recycled containerboard and relatively low recycled paper costs allowed producers to generate significant profit margins through much of the 1990s. RISI's analysis shows the Western European testliner industry registering a price to total cost ratio of around 0.96 in 1995-2000. Rapidly increasing recycled paper costs and slowing demand growth resulted in profitability declining during the last decade, reaching a low of 0.91 in the recession year of 2009.

Containerboard prices remained stable until the second quarter of 2008, when prices started to decline as the rapid weakening of the global economy decreased the demand for corrugated boxes (and containerboard). This was reflected in decreased demand and prices for testliner. Containerboard demand started to increase in the end of 2009 and the upturn of the economy was seen in Europe by mid-year 2010. Growth resumed in the international trade from early 2010 and the external demand and prices for containerboard increased as well. The industry price to total cost ratio reached a peak of approximately 1.36 in 2018 and is expected to be closer to 1.1 for 2022 and 2023.

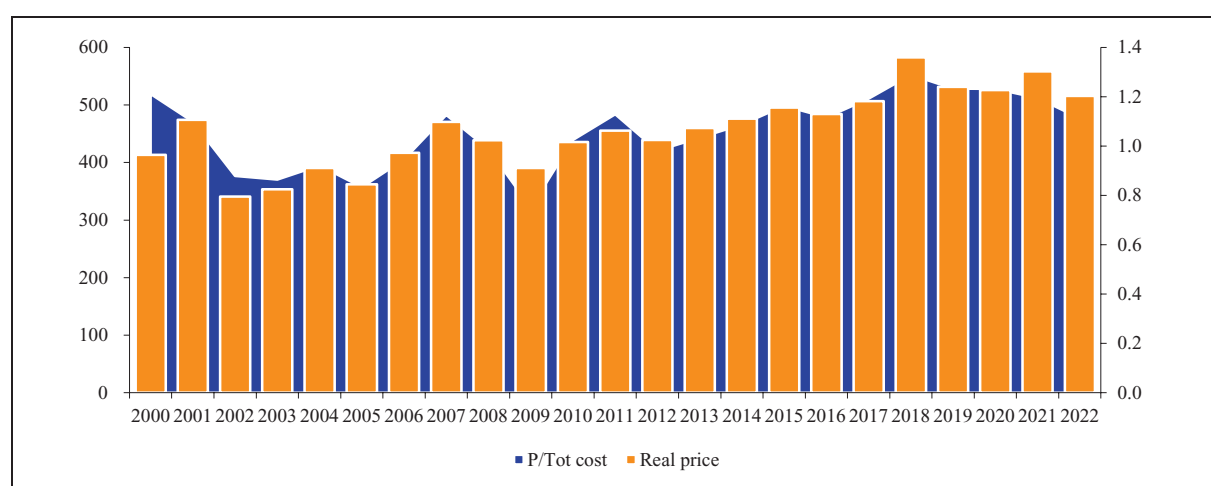
European testliner prices declined by approximately 20% from August 2011 to February 2012 due to the soft supply/demand balance and due to decreased recycled paper prices. Improved demand as well as the increase of recycled paper prices turned testliner prices back to growth track in mid-February 2012; however, with the continuing economic slowdown, the price level was not sustainable and prices declined as a result. In 2016, prices have further decreased by 4.0% in the last year in real terms, before surging by 6.8% in real terms in 2017 and by 8.1% in 2018. All containerboard prices follow each other and recycled

paper prices correlate well with them. Price difference between recycled paper and testliner has been on average just above €300. During the recessionary years 2008-2010, prices dropped due to weak demand and the prices for testliner also dropped due to decline in raw material prices. After a steady increase in prices between 2013 and 2015, testliner prices have been coming down since the start of 2016 despite of healthy demand and no large capacity additions during 2016.

Whilst European recycled containerboard producers raised prices by approximately €100-110/ton in 2017, they achieved only part of the announced €50-60/ton in early 2018, due to lower production costs and new ramped-up capacity.

Prices have reduced by 120 €/ton between Q4 2018 and May 2019 due to a slow-down in demand, with stabilisation is expected to begin in the second half of 2019 due to an improvement in demand.

Western Europe Testliner 2 Free Delivered Net-Net Pricing and Profitability

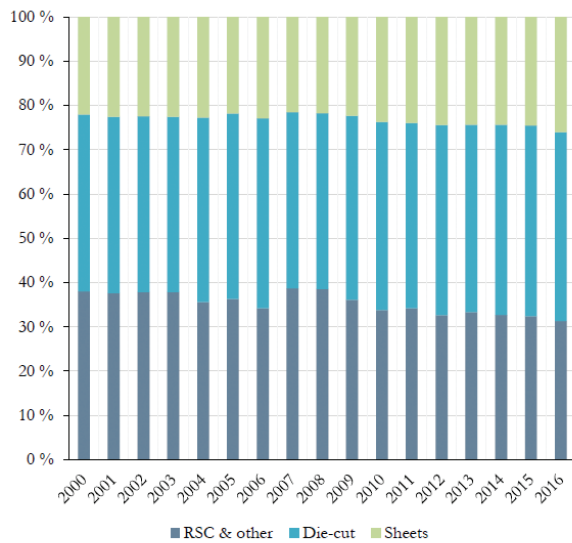


Source: RISI (European Paper Packaging Forecast—15 years (November 2018))

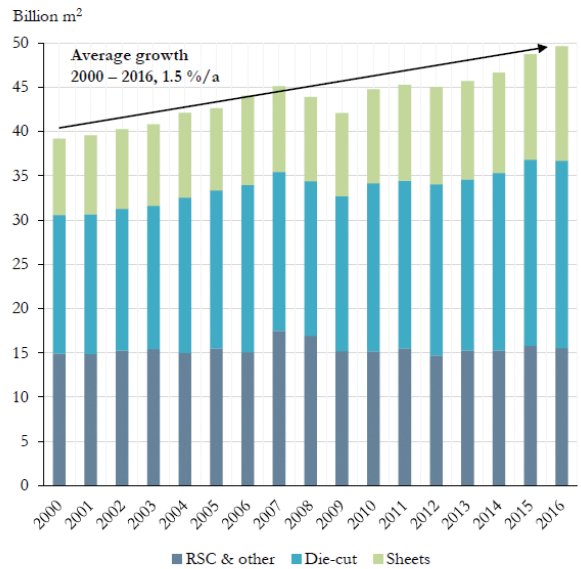
Corrugated board market developments

European corrugated board shipments totaled 49.6 billion square meters in 2016, of which 12.9 billion square meters were delivered in sheets, per Vision Hunters; the market has grown by 1.5% p.a. over 2000-2016. Vision Hunters estimates that the sheet market share has been slowly growing along with increased converting capacity and has 26% share of total corrugated shipments as of 2016, up from 22% in 2000. Growth above industry average has resulted in an additional increase of the corrugated sheets market by 2bn square meters since 2000.

Relative Share of Corrugated Board Shipments by Type



Corrugated Board Shipments by Type

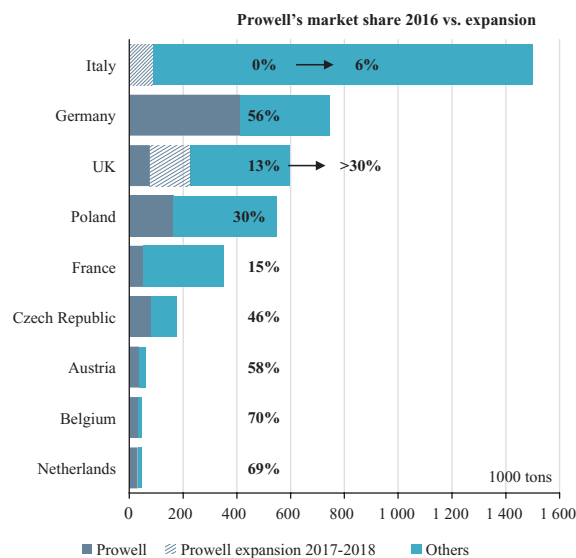


Source: Vision Hunters, Fefco, CCB

Source: Vision Hunters (March 2018)

Progroup Board holds market leader position in sheet markets in Germany, the Czech Republic, Austria, Belgium and the Netherlands, and plans to further expand its footprint, most notably in Italy and the UK:

Prowell market share in its main corrugated sheet markets, 2016



Source: Vision Hunters (March 2018)

MARKET AND COMPETITIVE LANDSCAPE

Containerboard products are largely standardized and, therefore, are subject to substantial price competition. Price is also an important driver of competition in the corrugated market. However, the corrugated market features a greater degree of differentiation than containerboard, with the purchasing decision for customers also being based on a range of other factors, including delivery lead time, quality of service, quality of product, consistency, quality of design and innovation in the packaging itself.

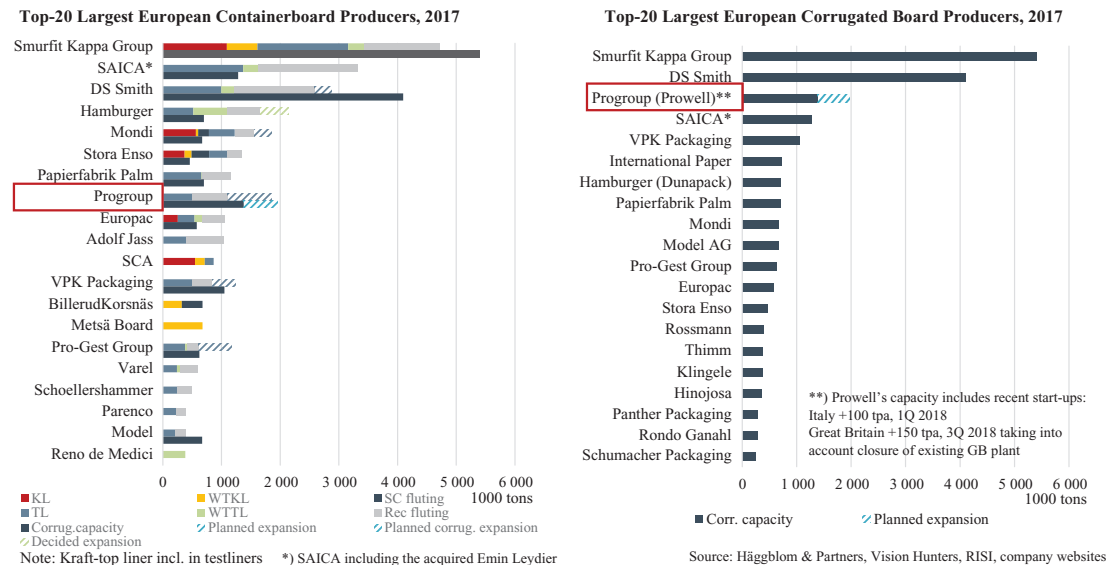
Existing European containerboard producers benefit from certain barriers to entry, including:

- the difficulty, especially in Western Europe, of finding appropriate locations (including proximity to reliable sources of virgin fibre in the case of kraftliner production and recycled paper in the case of recycled containerboard) to build new mills and obtaining approvals from local governments; and

- substantial capital costs associated with building a new plant of the scale and quality necessary to be cost-competitive with the production platforms of existing producers.

The corrugated board industry is more fragmented than containerboard and is comprised of a large number of small, often family-owned and locally operating companies. Smurfit Kappa and DS Smith are, in terms of scale, significantly larger than any other competitors in the market.

According to Vision Hunters, Progroup Board is the number three producer and largest independent corrugated board producer in Europe by volume produced and Progroup Paper is the number six producer of recycled containerboard in Europe by capacity.



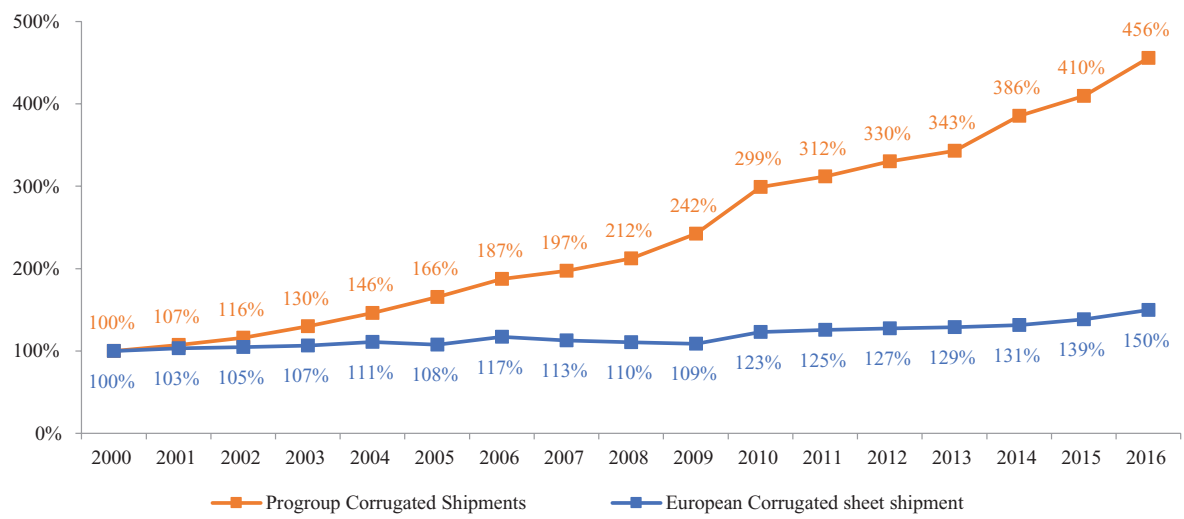
Source: Vision Hunters (March 2018)

Many of our competitors are fully integrated and focus on serving larger end-customers in large batch sizes, including global consumer corporates. Our differentiated business model allows us to serve a higher number of customers, process a higher number of orders and maintain higher production volumes (up to 370 million square meters per annum), thereby generating economies of scale. We are solely focused on the production process as opposed to many of our competitors, who also focus on more complex and customer-specific packaging requirements for a smaller number of larger customers and, hence, only have a production output of typically 70-80 million square meters per annum. Our operational model allows for significantly higher productivity levels compared with industry average, per Vision Hunters.

Over the past 27 years since our foundation, we have achieved leading market positions in the countries in which we operate. We are among the top three corrugated board producers in Europe (by production capacity) and our market share in our specific segment, the corrugated sheet market in Europe, is approximately 15%, according to Vision Hunters. In our core market segment, namely corrugated board sheets, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands and hold considerably higher market shares compared to our position in the overall European containerboard and corrugated board market, according to Vision Hunters. In containerboard production, we have a market share of approximately 4% by production capacity, according to Vision Hunters.

Unlike many of our competitors, who grew historically over many decades or had to integrate production infrastructures inorganically through acquisitions, we differentiate ourselves with a well-invested asset base and high-quality, complementary, modern and strictly aligned, high capacity production facilities placed purposefully in strategic locations. Our strategy has enabled us to experience above market growth rates resulting from organic growth alone. The CHP Acquisition allowed us to further expand our asset base with a tailor-made power plant that was specifically designed to meet the steam requirements of our paper machine PM2.

Corrugated shipments – Progroup growth vs. industry (2000-2016)

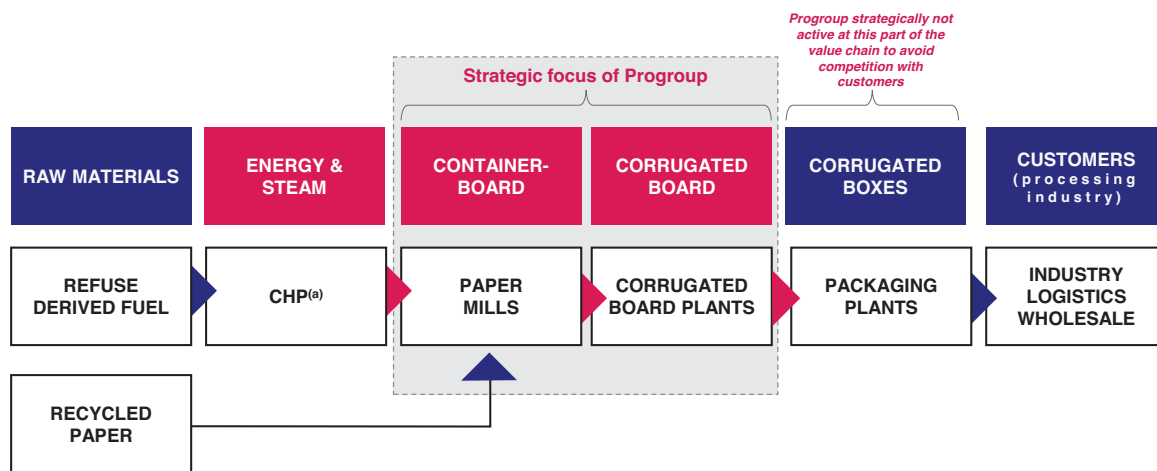


Source: Progroup

BUSINESS

OUR COMPANY

We are a leading, family-owned producer and supplier of containerboard and corrugated board in Central Europe and are headquartered in Landau, Germany. According to Vision Hunters, we are the third largest producer of corrugated board in Europe (by production capacity) through our corrugated board business (“**Board**”) and the sixth largest producer of recycled containerboard in Europe (by production capacity) through our containerboard business (“**Paper**”). We focus on the highly efficient production and processing of standardized grades and customized small batch series of corrugated board sheets for our mostly family-owned box manufacturing customers. In this core market segment, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters. We believe we differentiate ourselves from other market participants (*i.e.*, fully integrated paper and packaging producers) through our strategic focus on those elements of the value chain that bring added-value to our customers in the packaging industry, *i.e.* the automated and integrated production of containerboard and corrugated board. Our customers serve various end markets, including industrial/manufacturing, consumer durables, processed foods, non-food manufactured consumer goods and fresh food. Unlike many fully integrated market players, we do not produce boxes and therefore do not compete with our box manufacturing customers but instead focus solely on the production of containerboard and corrugated board.

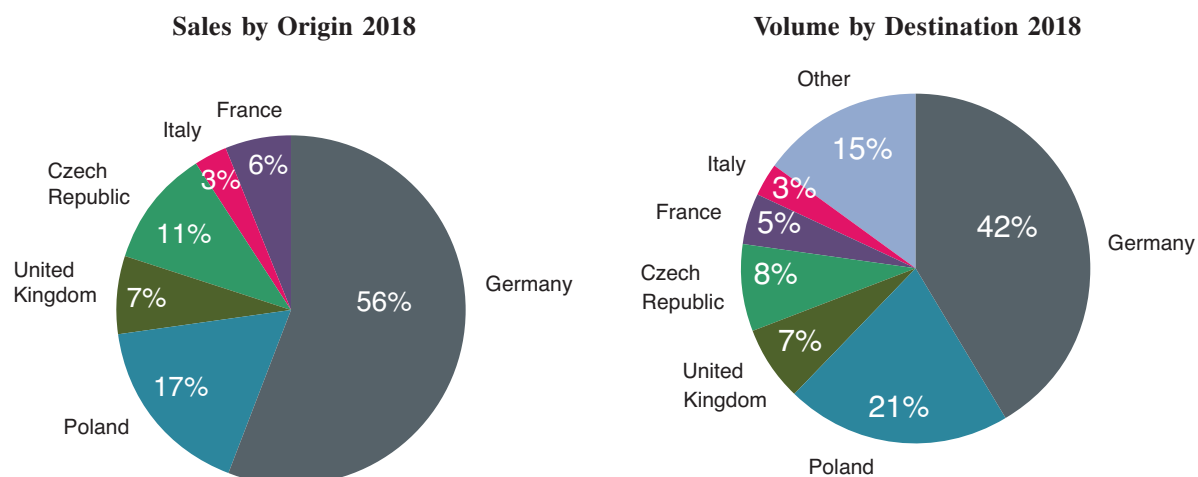


Through our large scale and highly flexible production, built up primarily via a greenfield approach, we are able to realize significant economies of scale. Since we commenced operations in 1992, we have carefully selected the locations of our production sites and have grown organically by pursuing primarily a greenfield strategy to create an optimal geographic set-up of our production sites across the markets in which we operate. As a result, we benefit from a well-invested asset base and production sites with high technological standards, resulting in a relatively low cost base compared to many of our competitors and relatively low requirements for additional capital expenditures in the short- to medium-term. Given the high technological standards of our production facilities, we believe we are well-positioned to benefit from major growth trends in our industry, such as (i) increasing demand for light-weight packaging, (ii) the increasing importance of small-size packaging due to the growing importance of e-commerce, and (iii) the general trend towards a more efficient and sustainable use of raw materials and energy, which can help reduce costs, CO₂ emissions and fresh water consumption.

Our core business comprises Paper and Board. The focus of Paper’s operations is highly flexible containerboard production using almost exclusively recycled paper, with high output volumes to increase cost efficiency and short delivery times. In 2016, 2017, 2018 and the first three months of 2019, containerboard produced by Paper accounted for most of the containerboard sourcing requirements of our corrugated board production within Board. We believe that a high degree of vertical integration and the ability of Board to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. In addition, our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options.

Paper manufactures containerboard at our two paper mills in Germany, with an envisaged total annual production capacity of approximately 1,100,000 tons of containerboard. Our two existing paper machines, PM1 in Burg and PM2 in Eisenhüttenstadt, have complementary production layouts which allow us to produce brown containerboard with grammages between 60-230g/m² using almost exclusively recycled paper. This, in turn, allows us to internally source consistently high-quality containerboard with the appropriate widths for Board's ten existing corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom, with a total annual production capacity of approximately 1,440,000 tons of corrugated board, including our latest corrugated board "mega plant" (PW12) at Ellesmere Port, United Kingdom. Our historic greenfield location strategy ensures close customer proximity and high production flexibility. Effective as of midnight on December 31, 2015, we further acquired Progroup Power 1 GmbH, the combined heat and power plant (the "CHP") adjacent to our paper mill in Eisenhüttenstadt and certain related assets (the "CHP Acquisition"). As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves ("Power").

In 2018, we sold approximately 1,151,000 tons of corrugated board and approximately 176,000 tons of containerboard to external customers across Europe, resulting in external corrugated board and containerboard sales, respectively, of €840.0 million (86.9% of total sales) and €84.5 million (8.7% of total sales). Paper's total sales in 2018 include €17.9 million (1.9% of total sales) in revenues from the sale of electricity and revenues from the incineration of refuse-derived fuel resulting from the integration of the CHP as well as €9.7 million (1.0% of total sales) in sales from passing purchased fuel costs to Sales and Solutions GmbH. Total external sales by Board and Paper in 2018 (including sales other than corrugated board or containerboard sales, respectively) amounted to €840.8 million (87.0% of total sales) and €112.9 million (11.7% of total sales). Our total sales and EBITDA in 2018 amounted to €966.1 million and €275.5 million, respectively. Sales in Germany (origin), our core market, accounted for 55.8% of total sales and 42.0% of sales by volume in 2018.



Primarily to support our core business, Paper and Board, we have established our own logistics operations, including a fleet of currently 59 trucks ("Logistics"). Most of the remaining €12.4 million in sales (1.3% of total sales) in 2018 were generated by Logistics.

Founded in 1991, we are indirectly majority-owned by Jürgen Heindl, our founder and chief executive officer.

OUR STRENGTHS

We believe we benefit from the following competitive strengths.

Differentiated business model with leading market positions in attractive market environment

Our founder, Jürgen Heindl, designed a business model differentiating us from our competitors. Through our strategic value chain positioning in containerboard and corrugated board production only, we do not compete with our targeted customers, who are primarily family-owned, small and medium-sized businesses. Our core customers focus on packaging solutions for the end-customer and typically do not have their own corrugated board production capability. Many of our competitors are fully integrated and

focus on serving larger end-customers in large batch sizes, including global consumer corporates. Our differentiated business model allows us to serve a higher number of customers, process a higher number of orders and maintain higher production volumes per production site (up to 370 million square meters of corrugated board per annum), thereby generating economies of scale. We are solely focused on the production process as opposed to many of our competitors, who also focus on more complex and customer-specific packaging requirements for a smaller number of larger customers and, hence, only have an average production output of typically 70-80 million square meters per production site per annum.

In 27 years since our foundation, we have achieved leading market positions in the countries in which we operate. We are among the top three corrugated board producers in Europe (by production capacity) and our market share in our specific segment, the corrugated sheet market in Europe, was approximately 15% according to a March 2018 market study by Vision Hunters. In our core market segment, namely corrugated board sheets, we were the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters, and we hold considerably higher market shares in those markets compared to our position in the overall European containerboard and corrugated board market. Following the fast and successful ramp-up of our corrugated board production site (PW10) in Trzcinica, Poland, we have also become a very significant player in the Polish market, and we have further become a significant player in the UK market, as a result of the commencement of production in January 2019 and ongoing ramp-up at our newest corrugated board production site (PW12) in Ellesmere Port, United Kingdom, which replaced the much smaller and now decommissioned production site PW8. In addition, the commencement of production at our corrugated board production site (PW11) in Drizzona, Italy in early March 2018, with an annual corrugated board production capacity of approximately 100,000 tons, marked our entry into the largest corrugated sheet board market in Europe. In containerboard production, we had a market share of approximately 4% by production capacity in Europe, according to the March 2018 market study by Vision Hunters.

While we believe our differentiated business model, high reliability and quality of product supply, significant scale, internal sourcing and geographic coverage provide us with a competitive advantage in our core market segment, we also benefit from attractive market fundamentals of the overall industry.

The paper and packaging industry is experiencing overall growing demand from industrial economies in Central Europe, and we believe that Germany and Central Europe, our key markets, generally provide a positive economic outlook. From a product perspective, the increasing significance of light-weight paper and packaging solutions as well as small-size packaging and the increasingly online and mail order-driven retail sector is expected to further stimulate packaging growth. We believe our modern production facilities, particularly PM2, which is capable of producing light-weight paper grades economically on a commercial scale, position us well to benefit from these growth trends in the industry. Furthermore, production is driven by the strong increase in demand from emerging economies, where production and packaging standards are adapting to the standards of developed countries, from which we also benefit with our production in Poland and the Czech Republic

Uniquely designed, best-in-class and strategically located, low-cost production asset base built up via greenfield strategy

Since our foundation in 1991, we have carefully designed and selected our production operations and locations via a dedicated greenfield strategy to establish highly efficient, flexible and technologically advanced production facilities, which were ahead of the existing market standard at the time. We believe we are the fastest organically growing corrugated board producer in Europe and have developed a unique track record and expertise in successfully establishing new greenfield corrugated board production sites. This includes a dedicated and experienced in-house projects team tasked with identifying attractive market opportunities for profitable growth, completing the planning and construction phases of the relevant projects on time and on budget and managing fast and successful ramp-ups of production at the relevant sites.

Designing our production set-up primarily via a greenfield strategy allowed us to invest in the best available production specifications and optimize the alignment and compatibility of our paper machines, PM1 and PM2, with our corrugators. The current 2.5m, 2.8m and 3.3m trim widths of our various existing corrugated board plants can be very efficiently combined with the 5.8m trim width of PM1 ($2 \times 2.8\text{m}$ or $2.5\text{m} + 3.3\text{m}$), the 10.2m trim width of PM2 ($4 \times 2.5\text{m}$ or $3 \times 3.3\text{m}$) and the 9.2m trim width of our proposed new paper machine PM3 ($2 \times 3.3\text{m} + 2.5\text{m}$ or $2 \times 2.8\text{m} + 3.3\text{m}$), resulting in low volumes of cutting scrap and higher productivity.

Our corrugated board production sites have been purposefully located approximately 500 kilometers from each other. This footprint ensures close customer proximity with full regional coverage of our customers and limited overlap to limit the transportation distance in most circumstances to 250-300 kilometers. Our strategic footprint also allows us to achieve high production flexibility and reliable just-in-time delivery with short lead times. Furthermore, we are able to serve our customers from different locations, thereby optimizing transportation costs and capacity utilizations on a plant-by-plant basis, which is coordinated centrally from our headquarters in Landau following a “one mill approach”. We believe our location layout and organization give us a competitive advantage in terms of cost efficiency and customer orientation. On average, we serve approximately 50-80 customers per corrugated board production site and each of our production sites offers the entire range of customer services (e.g., 24 hour delivery and online ordering and tracking).

We believe that all of our plants are equipped with state-of-the-art technology, which is the foundation of our low-cost and efficient production. According to Vision Hunters, the asset quality of our paper machines is characterized as high and above comparable European containerboard and corrugated board producers. Performance metrics of PM1, such as capacity and technical age, are well above the industry average. PM2, which we believe to be among the world’s most advanced paper machines for recycled super-light-weight paper and which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m², ranks best in class for all metrics and has set five new world records since its launch in 2010.

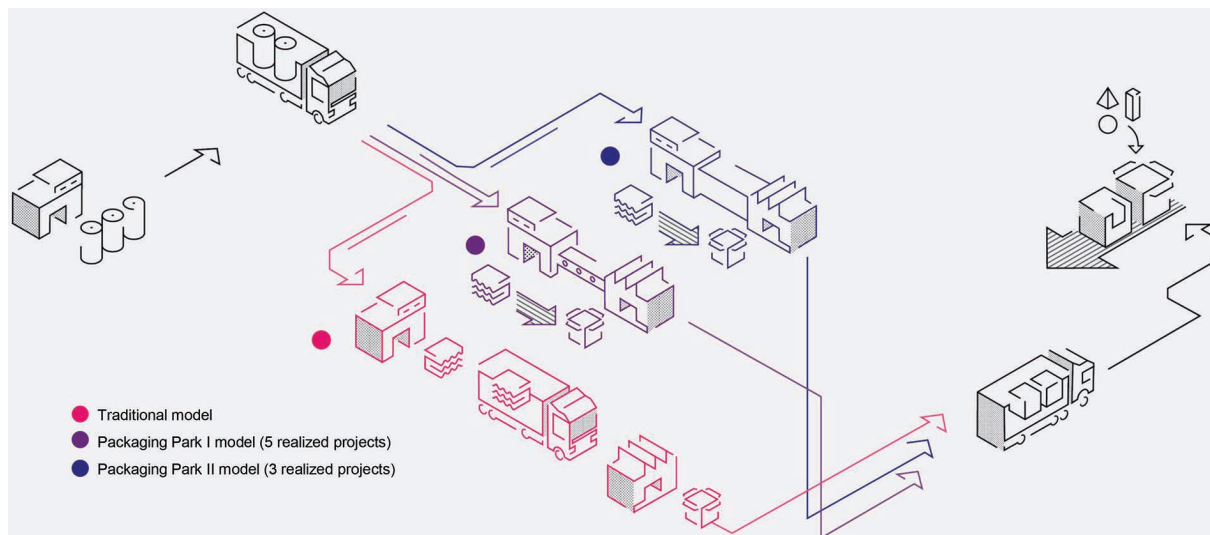
Unlike many of our competitors, who grew historically over many decades or had to integrate production infrastructures inorganically through acquisitions, we differentiate ourselves through our well-invested asset base and high-quality, complementary, modern and strictly aligned, high capacity production facilities placed purposefully in strategic locations.

Strong, diversified and long-standing customer base

We have long-standing relationships with many of our customers, some of which date back to the start of our operations in 1992. We have grown with our large German customers as they have expanded across Europe and have successfully entered into new relationships with key customers outside of Germany. We currently supply 350 to 400 different Board customers, with a strategic focus on family-owned, small and medium-sized companies. Our top five Board customers accounted for approximately 7%, 4%, 3%, 3% and 2%, respectively, of our total corrugated board sales, by tons, in 2018, while our top five external Paper customers accounted for approximately 28%, 12%, 11%, 8% and 5%, respectively, of our total external containerboard sales, by tons, in 2018.

We believe that our ability to provide reliable delivery of high-quality, cost-effective and tailor-made products and being a family-owned business have enabled us to foster strong partnerships of mutual dependence with our mostly family-owned customers, operating as a fundamental part of their supply chains by improving inventory management, security of supply and customer service.

Our strong customer relationships are reinforced through a combination of our geographic reach, our manufacturing and logistics excellence, and the limited availability of alternative suppliers with the capacity and geographic proximity to provide a competitive offering. At some of our corrugated board production sites, certain long-standing customers have established their own box manufacturing plants in immediate proximity to our site, either on our own land or on land adjacent to our site (so-called “**Packaging Park I Model**”). As a variation of this original packaging park model, we commenced production in October 2015 at our corrugated board production site (PW9) in Plössberg, Germany, which we established in immediate proximity to an existing packaging plant of our customer, Liebensteiner Kartonagenwerk, on land owned by our customer. As a further variation of the packaging park model, we commenced production in the first quarter of 2017 at our corrugated board production site (PW10) in Trzcinica, Poland on land we purchased from our large customer Janmar Centrum adjacent to its existing packaging plant. We refer to these variations where we establish our own corrugated board production sites close to our customers as the “**Packaging Park II Model**”. Following the success of these two packaging park projects (PW9 and PW10), we also established our corrugated board production site (PW11) in Drizzona, Italy as a packaging park project in immediate proximity to the existing packaging plant of our new customer, Italian packaging specialist Imbal Carton S.r.l.



All versions of the packaging park model help us to further strengthen our relationships with key customers (or win significant new customers, as in the case of Imbal Carton S.r.l.) and benefit both us and the relevant customers. The high level of integration between our own corrugated board production and the box production of our customers also made possible through the packaging park model creates a number of efficiencies and largely eliminates freight and other logistics costs between Board and our packaging park customers. Our packaging park customers also typically purchase a very high percentage (up to 100%) of their corrugated board requirements for the relevant box plant from us, which means predictable, high volume orders and consistently high utilization levels for the relevant corrugated board production sites. Index pricing arrangements with our packaging park customers ensure a predictable pricing mechanism for all parties. It typically takes approximately two to three months for containerboard mills to pass on their raw material price increases to their customers, *i.e.* manufacturers of corrugated board. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for corrugated board manufacturers, including us, to pass these increases on to their customers.

Technology and innovation leader

There are general industry trends towards lighter and more functional packaging and towards a more efficient use of resources. The trend towards “light paper” (*i.e.*, containerboard) has been particularly strong in Germany and has been further strengthened by the increasingly online and mail order-driven retail sector, which is expected to further stimulate demand growth for light packaging solutions. We believe that we are particularly well-positioned to capitalize on these trends with our paper mill in Eisenhüttenstadt, Germany, which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m². As demand for super-light-weight containerboard (with a grammage below 90g/m²) is increasing, we believe that PM2 gives us a significant advantage over many of our competitors, both in terms of efficiency and product quality. Our proposed further paper machine PM3, on the other hand, is designed to provide standard containerboard grades with grammages of 90-130g/m². Once this newest paper machine will commence operation, we believe it will give us the ability to put an even stronger focus on the production of super-light-weight containerboard (*i.e.* 70 - 80g) at PM2 and to focus production at PM1 on specialty containerboard such as kraftliner substitutes and containerboard with a higher grammages above 130g/m². We believe the expected further specialization of our paper machines will further enhance the productivity of all our paper machines as each paper mill will be able to focus on clearly defined paper categories. For more detail on our proposed new paper machine (PM3), see also “—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments” below.

In addition, we continuously work to improve our product designs, optimize the utilization of our assets and explore new ways to further reduce our input costs and secure the long-term sustainability of our core businesses, both from an economic and environmental perspective. In particular, we are focused on further reducing the use of fibre (*i.e.*, recycled paper) in our products as well as the amount of energy required for our production processes and the shipment of our products, in order to both maintain a competitive cost position in our industry and to reduce emissions and waste.

We believe that, at the time of its launch in 2001, our paper machine PM1 was the world's technologically most advanced containerboard paper machine setting new technology standards, including with the use of a closed water cycle, thereby minimizing the creation of waste water. Launched in 2010, we believe that PM2 is among the world's most advanced paper machines, which we believe has allowed us to set new industry standards with respect to raw material efficiency. As described in more detail under “—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments” below, we further decided to make certain significant additional investments in connection with the proposed establishment of our newest paper machine (PM3), which we expect will result in significant cost savings in the mid- to long-term as well as significant reductions of CO₂ emissions, waste water and natural gas consumption. These investments include a state-of-the-art waste overall waste-heat concept as well as a “first-of-its-kind” closed cycle waste water treatment system.

We have invested significantly in the development of a “green” range of “next generation” products working in close cooperation with BHS Corrugated GmbH, one of our equipment suppliers, and a team of researchers at the University of Applied Sciences (*Hochschule für angewandte Wissenschaften*) in Regensburg, Germany. We market these products under our own brands next fibre®, next board® and next box®. All of these product innovations involve the use of super-light-weight containerboard produced by our paper machine PM2 as well as innovative flute designs of our corrugated board formats, intended to further reduce raw material input and thereby further reduce weight, input costs and CO₂ emissions.

Significant synergies through high degree of vertical integration

In 2018, containerboard produced by Paper accounted for approximately 75% of the containerboard, by volume, used by our corrugated board production within Board. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Board have increased from approximately 62% (or 67%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Paper in 2016 to approximately 82% (or 93%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Paper in 2018. With the fast and successful ramp-up of production at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018, we had already accomplished one of our long-standing strategic goals and had already been operating at the top end of our long-term target corridor with regard to the level of integration between Paper and Board. We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019, i.e. we expect that the recycled containerboard sourcing requirements of our corrugated board production within Board will significantly exceed the internal supply capacities of Paper. As we have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany (with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020) and plan to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023 (including a further corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021), we expect to successively increase this net short position with regard to containerboard even further at least in the short-term. We therefore currently do not expect the volume of our external containerboard sales to significantly increase again unless and until we complete our proposed further paper machine project (PM3) in the second half of 2020. For more details on our expansion projects and investment program, see also “—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments” below. With an envisaged total annual containerboard capacity of approximately 1,100,000 tons, Paper produced approximately 1,020,000 tons and 1,035,000 tons of containerboard in 2018 and 2016, respectively. In 2018, approximately 811,000 tons were sold internally to Board (2016: 738,000 tons of internal containerboard sales), and a further approximately 111,500 tons were sold pursuant to swap agreements with other containerboard producers (2016: 106,000 tons of sales to swap partners), which allow us to reduce transportation costs, optimize our production program and swap internally produced containerboard for certain containerboard grades we do not produce in sufficient quantities, such as kraftliner. The remaining approximately 64,000 tons of containerboard we sold in 2018 were sold externally (2016: approximately 198,000 tons of external containerboard sales, excluding sales to swap partners). With a total annual corrugated board production capacity of approximately 1,440,000 tons (including (i) 100,000 tons of capacity of our new corrugated board production site (PW11) in Drizzona, Italy, which commenced production in early March 2018 and (ii) more than 200,000 tons of capacity of our newest corrugated board

“mega plant” (PW12) in Ellesmere Port, United Kingdom, which commenced production in January 2019) as of the date of this offering memorandum (2016: total annual corrugated board production capacity of approximately 1,130,000 tons), Board produced approximately 1,151,000 tons of containerboard in 2018, compared to approximately 930,000 tons of corrugated board in 2016. We believe that a high degree of vertical integration and making full use of the ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. At the same time, we believe that the high share of internal containerboard sales may help us stabilize or improve our overall Group margins by reducing our exposure to lower or more volatile margins (compared to corrugated board margins) of certain external containerboard sales. Our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options. The steady increase in the degree of vertical integration between Paper and Board over the last few years has also been allowing us to further optimize our internal logistics and supply chain. See also “—Our Strategy—Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases” below.

Strong track record of profitable growth

Since 2015, we successfully completed a number of recent expansion and other investment projects, including the CHP Acquisition as well as the successful establishment of four new corrugated board production sites (PW9, PW10, PW11 and PW12), with the construction of our new corrugated board production site (PW13) in Eisfeld, Germany progressing on schedule and earthworks for our third paper machine (PM3) in Sandersdorf-Brehna, Germany having started in January 2019. In addition, we successfully implemented a series of initiatives in recent years as part of our Continuous Improvement Program to improve the effectiveness of our sales and marketing activities, optimize (*i.e.*, minimize) our variable costs and stabilize our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry.

As a result of these and other factors, we have managed to continue to significantly improve our profitability and cash position and moved the Group to a structurally enhanced level of profitability in recent years. In particular, we have managed to increase our EBITDA from €81.7 million in 2013 to €125.1 million in 2014, €152.9 million in 2015, €154.7 million in 2016, €180.4 million in 2017 and €275.5 million in 2018. During the same period, our EBITDA margin (calculated by dividing EBITDA by sales) improved from 14.0% in 2013 to an exceptional 28.5% in 2018. Combined with our controlled investment strategy, which should normally allow us to adapt the amount of our expansion capital expenditures in line with our projected mid-term cash requirement, we believe we are in a strong financial condition to weather and/or adapt to challenges that may face us or our industry as a whole.

Committed family shareholders and experienced management team for long-term stability

Our company was founded in 1991 by Jürgen Heindl, our chief executive officer, and continues to be controlled by him and his two sons, Maximilian Heindl and Vinzenz Heindl. We believe this family link and the strong personal and long-standing financial commitment of our owners ensures our focus on stability, long-term value generation and prudent investment strategies. Jürgen Heindl’s expertise is supported by a strong and growing management team with extensive industry experience, including within our Group. Our management team has impressively demonstrated its abilities by creating one of Europe’s leading containerboard and corrugated board players in 27 years while withstanding economic downturns and restructurings. In response to the increasing size and complexity of the Group and to free up management capacity to allow Jürgen Heindl to focus on the strategic development of the Group, we have successfully professionalized and expanded our senior management team, including our Executive Board. Dr. Volker Metz rejoined the Group as our chief financial officer in November 2016, after previously having served as our head of controlling between 2009 and January 2016. Similarly, after spending seven years with one of our largest international competitors, Philipp Kosloh rejoined the Group in November 2016 and was appointed a deputy member of our Executive Board, with a view to becoming our first chief operating officer. Mr. Kosloh had previously served in various capacities within the Group between 2001 and 2009. Effective January 1, 2019, Mr. Kosloh became a regular member of the Executive Board and assumed the role of chief operating officer. In addition, after gaining several years of relevant work and management experience in the paper industry outside the Group, Maximilian Heindl joined the Group in August 2016 as the manager in charge of production and technology at Paper (PM1 and PM2) and with overall responsibility for Power. From August 1, 2017, Maximilian Heindl took over further responsibility within the Group as a deputy member of the Executive Board and, effective January 1, 2019, he became a regular

member of the Executive Board and assumed the role of chief development officer. Maximilian Heindl's work and management experience outside the Group, his management roles at Paper and Power, his appointment to the Executive Board and gradual assumption of further responsibilities are all part of a deliberate, long-term succession plan for our founder and chief executive officer Jürgen Heindl with the goal of securing our future as a successful family-owned business into the next generation.

OUR STRATEGY

Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments

To maintain and further strengthen our position as a leading, low-cost corrugated board producer in Europe in the long-term and to allow us to successfully meet ongoing and expected future market growth and the requirements of our customers with regard to supply certainty and product quality, we intend to continue to make prudent and controlled investments to further expand and improve the efficiency of our production facilities as part of our long-term “Two Twentyfive” strategy, as long as (i) we are confident we can achieve payback periods for our investments that are aligned with the maturity profile and relevant headroom under our financing arrangements, (ii) we maintain sufficient financial flexibility to weather and/or adapt to challenges that may face us or our industry as a whole, and (iii) any such investments would be consistent with our long-term target leverage. In addition to further capacity expansion, our “Two Twentyfive” strategy, among other things, also contemplates a gradual technological transition and generation change away from the use of corrugators with a trim width of 2.5m, which are installed and currently in use at some of our older corrugated board production sites, to the use of more modern corrugators with trim widths of 2.8m or 3.3m at most of our corrugated board production sites.

Following the successful completion of the ramp-up of production at our corrugated board production site (PW9) in Plössberg, Germany, which commenced production in October 2015, we had already accomplished one of our long-standing strategic goals in 2016 and were already operating within our target corridor with regard to the level of integration between Paper and Board. However, in the short-term to mid-term, we still intend to continue to focus our investment activities on further expanding our corrugated board production capacity to be able to seize what we believe are numerous further market opportunities for profitable growth, similar to those that led to the successful establishment of our most recent production sites (PW9, PW10, PW11 and PW12) in Plössberg (Germany), Trzcinica (Poland), Drizzona (Italy) and Ellesmere Port (United Kingdom). In continuation of our organic growth strategy, we intend to primarily achieve further growth by pursuing further expansion opportunities via greenfield projects.

In addition to the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018 following commencement of commercial production in April 2017, we commenced production at our corrugated board production site (PW11) in Drizzona, Italy, in early March 2018 and at our newest corrugated production site (PW12) in Ellesmere Port, United Kingdom, in January 2019. As with our corrugated board production site (PW9) in Plössberg, Germany and our corrugated board production site (PW10) in Trzcinica, Poland, we established our production site (PW11) in Drizzona, Italy, as a packaging park project in immediate proximity to the existing packaging plant of a customer, Italian packaging specialist Imbal Carton S.r.l., which allows us to supply this new customer largely without freight and other logistics costs. The commencement of production at our corrugated board production site (PW11) in Drizzona, Italy, with an annual corrugated board production capacity of approximately 100,000 tons, also marked our entry into the largest corrugated sheet board market in Europe. With a total investment of approximately €85-€90 million into the establishment of our new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom to replace our now decommissioned corrugated board production site (PW8) located just a few kilometers from the new site, we have now also become a significant player in the UK market. This newest corrugated board production site operates with a 3.35m trim width and has an annual corrugated board production capacity of more than 200,000 tons, more than double the production capacity of approximately 85,000 tons of the old site (PW8), which we established in 2009 with a used corrugator with a 2.5m trim width. We believe that the new production site, with its large capacity and state-of-the-art equipment, is one of the largest and most efficient corrugated sheet board plants globally and positions us well to further grow in the United Kingdom, a market in which we have historically been able to achieve above average EBITDA margins.

While we have historically pursued a pure greenfield growth strategy, including the three packaging park projects (PW9, PW10 and PW11), our newest corrugated board production site (PW12) in the United

Kingdom as well as the proposed new corrugated board production sites (PW13 and PW14), we are also evaluating and will continue to evaluate opportunities to acquire attractive assets from competitors which would complement our existing network of production sites, advance our goal of further increasing our corrugated board production capacity and meet the other internal investment and financing criteria described above. In addition, in order to maintain and/or strengthen our relationships with certain large and long-standing customers or in response to opportunities to establish relationships with significant new customers, we will consider additional packaging park projects whereby we would establish corrugated board production sites at or in proximity to the packaging plants of the relevant customers.

With the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland, we had already accomplished one of our long-standing strategic goals and had already been operating at the top end of our long-term target corridor with regard to the level of integration between Paper and Board. We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019, i.e. we expect that the recycled containerboard sourcing requirements of our corrugated board production within Board will significantly exceed the internal supply capacities of Paper. In the short-term to mid-term, we nevertheless intend to continue to focus our investment activities on further expanding our corrugated board production capacity. We have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany, with test production expected to start in the fourth quarter of 2019 or the first quarter of 2020. We expect to make total net investments (net of subsidies) of approximately €60 million at this site, which is slightly higher than our earlier estimates of approximately €50 million. This cost increase primarily relates to additional investments which will increase the annual corrugated board production capacity of the new site to approximately 175,000 tons, from the originally proposed capacity of approximately 140,000 tons. Higher than originally expected civil engineering costs (due to the booming construction sector) also contributed to the expected overall cost increase. In addition, we plan to establish up to three further corrugated board production sites in Central Europe between 2020 and 2023, including a further corrugated board “mega plant” (PW14), which we expect will operate with a 3.35m trim width and have an annual corrugated board production capacity of up to 215,000 tons. We expect to invest approximately €70-75 million into this new plant, which will have capabilities similar to our “mega plant” (PW12) in Ellesmere Port, United Kingdom and, we envisage, will commence production in late 2020 or early 2021. Primarily to fund our expected investments into this new site, we entered into the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the New Senior Secured SaarLB Facility, with total commitments of €75 million. For more details about these New Senior Secured Facilities, see “*Description of Certain Financing Arrangements—New Senior Secured Erste Bank Facility*”, “*Description of Certain Financing Arrangements—New Senior Secured LBBW Facilities*” and “*Description of Certain Financing Arrangements—New Senior Secured SaarLB Facility*”. As a result of these proposed additional corrugated board production sites, we expect our annual corrugated board production capacity to increase from approximately 3.0 billion square meters (including our corrugated board production sites (PW11 and PW12) in Drizzona, Italy and Ellesmere Port, United Kingdom) to approximately 4.2 billion square meters.

Preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner through our new paper machine project

In order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Board, we have also begun to actively pursue the realization of a further paper machine project (PM3) in Sandersdorf-Brehna, Germany. Earthworks for the new paper machine already started in January 2019 and, subject (among other things) to obtaining the missing regulatory approvals and construction proceeding according to plan, we currently expect this further state-of-the-art paper machine to start production in the second half of 2020, with a total annual containerboard capacity of approximately 750,000 tons. Following completion of the ramp-up phase of this potential further paper mill, this would mean an increase of the total annual containerboard capacity of Paper from currently approximately 1,100,000 tons to approximately 1,850,000 tons. The new paper machine (PM3) will have a 9.2m trim width, which would allow us to optimize containerboard production to meet the requirements of the more modern corrugators with trim widths of 2.8m or 3.3m at most of our newer corrugated board production sites, which would result in low volumes of cutting scrap

and higher productivity. Once PM3 has commenced operations, we also plan for further specialization of our then three paper machines which we expect will further enhance the productivity of all our paper machines as each paper mill will be able to focus on clearly defined paper categories. See also “—*Our Strengths—Technology and innovation leader*” above. We currently expect total net investment costs (i.e. net of expected subsidies) of approximately €465 million for this new paper machine project over a several year period, including approximately €116.7 million of initial expenditures (e.g. for advanced payments for the paper machine and certain preliminary work) we had already incurred as of the end of the first quarter of 2019. We expect to fund any such investments with a combination of cash on hand, cash generated from our operating activities and additional borrowings, including drawings under the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured IKB Facilities, the Existing Senior Secured SaarLB Facility and the Existing Senior Secured HSBC Facility. The currently expected total net investment costs of approximately €465 million in connection with the proposed establishment of our newest paper mill (PM3) significantly exceed our earlier estimates of €375-400 million, primarily due to certain additional strategic and value accretive investments we decided to make, which we expect to have significant economical as well as ecological benefits once the new paper mill will be operational. A large portion of the increase in the expected total net investment costs relates to investments into more energy-efficient components as part of our overall waste-heat concept from the new paper mill. The installation of these components is not legally mandated, but we expect it will result in significant cost savings in the mid- to long-term as well as a reduction of CO₂ emissions of up to 151,000 tons per year. In addition, we decided to install a closed cycle waste water treatment system. Once our new paper mill is operating at the full intended capacity of 750,000 tons of containerboard, we expect that this closed cycle waste water treatment system will help us to avoid approximately 3,775,000 m³ of waste water per year, cut the fresh water consumption of the new paper mill by 3,750,000 m³ and reduce CO₂ emissions by approximately a further 19,900 tons per year. At full capacity, the system is expected to produce approximately 65,000,000 kWh per year of bio gas as part of the waste water treatment process. The paper mill will use this bio gas in connection with its production process, cutting its natural gas consumption by approximately 7-8%. We further believe that the proposed closed cycle waste water system will minimize our reliance on third party waste water treatment facilities (which have led to capacity constraints at our existing paper machine (PM2) in Eisenhüttenstadt, Germany in the past) and result in significant related cost savings in the future. We further decided to install (i) a steam turbine which will allow us to produce a portion of the electricity requirements of the new paper mill in an environmentally friendly manner and (ii) a direct rail connection, which will give us the option to ship a portion of our future production in an environmentally friendly manner by rail and, we believe, result in savings of freight cost and other operational benefits. An increase in the expected costs of the necessary civil engineering works, due to the booming construction sector, also contributed to the overall increase in the expected total net investment costs.

Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases

We expect that the start of production at our new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Board, so that we will remain a net purchaser of containerboard in 2019. As already described in more detail above, apart from a further corrugated board production site (PW13) in Eisfeld, Germany which we have already commenced construction, we currently expect to establish up to three further corrugated board production sites between 2020 and 2023 (including a further corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021). See also “—*Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments*” above. Unless and until we complete the proposed new paper machine project (PM3), this expected increase in our corrugated board production may cause us to further increase the level of internal containerboard sales to Board (and thereby the level of integration between Paper and Board) in 2019 and to increasingly rely on purchasing containerboard from third party suppliers. We believe that targeted external containerboard purchases that meet the specific sourcing requirements of Board will give us additional flexibility and provide us with opportunities to further optimize (i.e., minimize) our variable costs, for example, by allowing us to purchase containerboard that matches the specific grade and optimal trim-width required for our corrugated board production from time to time, from external suppliers located in close proximity to the relevant Board plants. We hope this will allow us to further reduce cutting

scrap, further optimize logistics expenses and give us additional flexibility to optimize the utilization of our existing paper machines (PM1 and PM2).

Maintain cost leadership through continuous efficiency and profitability improvements

In order to maintain profitability throughout the economic cycle, we have implemented a comprehensive profitability improvement program (the “**Continuous Improvement Program**”) to ensure the long-term success of our Group. Our Continuous Improvement Program focuses on (i) improving the effectiveness of our sales and marketing activities, (ii) optimizing (*i.e.*, minimizing) our variable costs and (iii) stabilizing our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry. Since 2012, our main focus in connection with our goal of achieving sales excellence has been on (i) growing our external sales in excess of the general growth in market volumes (and thereby increasing our market share), (ii) maximizing the impact of the introduction of our “next generation” products into the market and (iii) optimizing our sales portfolio. As part of our efforts to optimize our variable costs, we have focused on (i) reducing our consumption of raw materials, (ii) optimizing our energy consumption and energy costs, especially at our paper mill in Eisenhüttenstadt (PM2), and (iii) reducing the purchase prices of our key production factors, such as recycled paper, starch and freight services. Overall, we have met or exceeded our targeted benefits through our Continuous Improvement Program. We intend to continue to implement our Continuous Improvement Program and identify and realize further improvement opportunities. See also “—*Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases*” above.

HISTORY

Our Group was founded in 1991, when Jürgen Heindl, our controlling shareholder and chief executive officer, established PROWELL Papierverarbeitung GmbH and launched our first plant (PW1) for the production of corrugated board in Offenbach a. d. Queich, Germany, in the following year. From the beginning, we intended to focus on the highly-efficient production of small batch sizes of sheet board for small and medium-sized customers based on high technological standards. In 1996, a second corrugated board production site (PW2) was established in Douvrin, France, and, in 1998, a third corrugated board production site (PW3) was launched in Burg, Germany.

Another key milestone in the development of our Group was the establishment of our first paper mill in Burg with our paper machine PM1 for the production of medium- to heavy-weight containerboard with grammages of 100-230g/m². At the time, PM1 introduced a number of new technological features, including a “2 gap former”, a “drum pulper”, a “speed sizer” and a closed water loop that minimizes the creation of waste water. PM1 represented a significant intermediate step towards the high-speed production of lighter containerboard.

In 2002 and 2005, respectively, we further expanded our corrugated board capacity by launching our fourth and fifth corrugated board production sites in Rokycany, Czech Republic (PW4) and in Schüttorf, Germany (PW5). The corrugators at those two production sites have a width of 3.3 meters, which represented a new technology standard for the industry at the time and resulted in significant productivity gains. In 2007, we established Europe’s largest corrugated board production site in Offenbach a. d. Queich, Germany (PW6), replacing the original PW1 facility at the same site. In 2009, we realized another two greenfield projects with the construction of our corrugated board production sites in Strykow, Poland (PW7) and Ellesmere Port, United Kingdom (PW8).

Also in 2009, we commenced construction of our second paper mill in Eisenhüttenstadt, Germany, with our paper machine PM2 commencing production of super-light-weight to medium-weight containerboard in March 2010. To secure a portion of the necessary funding for our €420 million investment in our paper machine PM2, we raised additional equity in 2008 and 2009. In particular, Jürgen Heindl established JH-Holding, our controlling shareholder, in 2007. JH-Holding entered into the Former JH-Holding Facility and used a portion of the proceeds from its borrowings under the Former JH-Holding Facility to subscribe for additional shares in the Issuer. In addition, the Issuer issued preference shares to BWK GmbH Unternehmensbeteiligungsgesellschaft.

To secure a reliable supply of energy to our paper machine PM2, we entered into certain framework and ancillary agreements with Progroup Power 1 GmbH and its parent company Sales & Solutions GmbH (formerly EnBW Energy Solutions GmbH) in 2008 for the construction and operation of the CHP adjacent to our paper mill in Eisenhüttenstadt. The CHP commenced operation in 2011.

In July 2014, we announced a strategic investment in the construction of our corrugated board production site (PW9) in Plössberg, Germany adjacent to and connected with a packaging plant of our customer Liebensteiner Kartonagenwerk. This site commenced production in October 2015. At our corrugated board productions sites in Burg, Offenbach, Schüttorf and Ellesmere Port, some of our customers have established their own production sites in close proximity to, or even on, our production sites. With our corrugated board production site (PW9) in Plössberg, Germany, we followed our customer for the first time and set up our facility at the existing site of a customer.

In April 2015, we refinanced all then outstanding amounts under our Former Senior Credit Facility with the proceeds from the issuance of €250,000,000 aggregate principal amount of our Existing Fixed Rate Notes and €150,000,000 aggregate principal amount of the Issuer's senior secured floating rate notes due 2022, and we also entered into the Super Senior Revolving Credit Facility. At the same time, JH-Holding Finance SA, a newly incorporated finance subsidiary of JH-Holding, the Issuer's direct controlling shareholder, also issued the PIK Toggle Notes, primarily to fund the acquisition of all rights under the Former JH-Holding Facility and to fund the acquisition of all preference shares in the Issuer then held by BWK GmbH Unternehmensbeteiligungsgesellschaft.

Effective as of midnight on December 31, 2015, we acquired Progroup Power 1 GmbH, the CHP and certain related assets outright from EnBW. As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves. The completion of the CHP Acquisition constituted a significant milestone in our efforts to optimize our cost structure and allowed us to significantly reduce our energy costs.

As a further variation of the packaging park model, we commenced production in the first quarter of 2017 at our corrugated board production site (PW10) in Trzcinica, Poland on land we purchased from our large customer Janmar Centrum adjacent to its existing packaging plant.

Following the success of the two packaging park projects (PW9 and PW10) in Plössberg, Germany and in Trzcinica, Poland, we also established our new corrugated board production site (PW11) in Drizzona, Italy as a packaging park project in immediate proximity to the existing packaging plant of our new customer, Italian packaging specialist Imbal Carton S.r.l. The commencement of production at this new corrugated board production site (PW11) in Drizzona, Italy in early March 2018, with an annual corrugated board production capacity of approximately 100,000 tons, also marked our entry into the largest corrugated sheet board market in Europe. In addition, with a total investment of approximately €85-€90 million into the establishment of our new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom to replace our now decommissioned corrugated board production site (PW8) located just a few kilometers from the new site, after its commencement of production in January 2019, we have now also become a significant player in the UK market. This newest corrugated board production site operates with a 3.35m trim width and has an annual corrugated board production capacity of more than 200,000 tons, more than double the production capacity of approximately 85,000 tons of the old site (PW8), which we established in 2009 with a used corrugator with a 2.5m trim width. We believe that the new production site, with its large capacity and state-of-the-art equipment, is one of the largest and most efficient corrugated sheet board plants globally and position us well to further grow in the United Kingdom, a market in which we have historically been able to achieve above average EBITDA margins. As we have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany (with test production expected to start in the fourth quarter in 2019 or the first quarter of 2020), we further expect to establish up to three further corrugated board production sites between 2020 and 2023 including a further corrugated board "mega plant" (PW14) which is envisaged to commence production in late 2020 or early 2021).

In 2018, we achieved a milestone in our corporate history by implementing our new branding in order to further strengthen our core brand "Progroup", provide clearer focus and realize the full potential of the "Progroup" brand in the market. The previous individual brands "Prowell", "Propapier" and "Prologistik" were unified under a single umbrella at the end of November 2018. Since then, we have operated under a single uniform and strong Progroup brand:

- **Progroup** refers to the centralized management and administration of the Group by Progroup AG, the Issuer, from our headquarters in Landau, Germany.
- **Progroup Paper** (formerly Propapier) encompasses our containerboard production activities at our two mills in Burg (PM1) and Eisenhüttenstadt (PM2) (both located in Germany) and also includes the related energy production of Power at the CHP adjacent to our paper mill in Eisenhüttenstadt.

- **Progroup Board** (formerly Prowell) encompasses our corrugated board production at our ten production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom.
- **Progroup Logistics** (formerly Prologistik) encompasses our own logistics operations, including a fleet of trucks we operate primarily to service the business operations of Paper and Board.

To support this rebranding, we also changed the legal entity names of the various entities within our group in the fourth quarter of 2018, except for Progroup AG and Prowell Verwaltungs GmbH.

The following is a brief description of our core business units, Paper and Board.

PAPER

Paper encompasses our containerboard production at our two paper mills in Burg and Eisenhüttenstadt, with a total annual production capacity of approximately 1,100,000 tons of containerboard. Our two paper machines, PM1 in Burg and PM2 in Eisenhüttenstadt, are complementary to each other due to different production layouts and allow us to produce brown containerboard with grammages between 60-230g/m² using almost exclusively recycled paper. This, in turn, allows us to internally source consistently high-quality containerboard with the appropriate widths for our corrugated board production sites. To cover the increasing demand for consistently high-quality containerboard, Progroup has begun the realisation of a further paper machine project in Sandersdorf-Brehna, Germany. The new, state-of-the-art paper machine PM3 will start production in the second half of 2020 and provide a further production capacity of around 750,000 tons of containerboard.

The focus of Paper's operations is highly flexible containerboard production, with high output volumes to increase cost efficiency and short delivery times. During 2018, containerboard produced by Paper accounted for approximately 80-85%, by volume, of the containerboard sourcing requirements of our corrugated board production within Board. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Board have increased to approximately 82% (or 93%, if we include containerboard sales to swap partners) of the total sales, by volume, of Paper in 2018, which means that we had already accomplished one of our long-standing strategic goals and had already been operating at the top end of our long-term target corridor with regard to the level of integration between Paper and Board. We believe that a high degree of vertical integration and making full use of the ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. At the same time, we believe that the high share of internal containerboard sales may help us stabilize or improve our overall Group margins by reducing our exposure to lower or more volatile margins (compared to corrugated board margins) of certain external containerboard sales. Our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options. The steady increase in the degree of vertical integration between Paper and Board over the last few years has also been allowing us to further optimize our internal logistics and supply chain. In 2018, our Paper operations generated €112.9 million in external sales, which represented 11.7% of our total sales. The majority of these external containerboard sales were generated under one-year contracts with packaging customers. The remainder of our external containerboard sales in 2018 was generated through spot market and multi-year supply agreements. Our external containerboard customers include both other producers of corrugated board as well as commodity traders. In 2018, our five largest Paper customers accounted for approximately 63% and our ten largest Paper customers for approximately 76% of our external containerboard sales by volume.

Paper Machine PM1

Launched in 2001, our paper machine PM1 marked the start of the Group's vertical integration into the production of containerboard. With a trim width of 5.8 meters, it produces medium- to heavy-weight containerboard with grammages of 100-230g/m² using recycled fibre and, to a small extent, virgin fibre. We believe that, at the time of its launch in 2001, PM1 was the world's technologically most advanced containerboard paper machine setting new technology standards, including with the use of a closed water cycle, thereby minimizing the creation of waste water. Through a series of investments and optimization measures since its launch, we have been able to significantly improve the annual capacity of PM1 from approximately 287,000 tons of containerboard in 2001 to approximately 420,000 tons in 2018. In addition, since the launch of our paper machine PM2, we further developed PM1 towards the production of heavier paper grades (*i.e.*, grammages of 100-230g/m²), including testliner, kraftliner, proliner K, fluting paper and promedium S.

Paper Machine PM2

Launched in 2010, our paper machine, PM2, is calibrated to produce super-light-weight to medium-weight containerboard, including testliner and fluting paper, with grammages of 60-130g/m² using almost exclusively recycled fibre. We believe that PM2 is among the world's most advanced paper machine based on trim width and designed speed. This allows us to set new industry standards with respect to raw material efficiency, cost leadership as well as containerboard and corrugated board design. With its ability to produce super-light-weight paper grades, PM2 helps us to reduce consumption of recycled paper. For more information about our range of "next generation" products, including next fibre® and next board®, see "*Sustainability Focus; Research and Development*" below. With a trim width of 10.2 meters, PM2 has an annual containerboard capacity of approximately 680,000 tons, and since its launch in 2010, PM2 has set five new world records for production speed of various lightweight paper grades. We believe that PM2 enables us to generate significant savings in fibre input, which is essential to our ability to improve our competitive position and future profitability.

Paper Machine PM3

Furthermore, in order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Board, we have also begun to actively pursue the realization of a further paper machine project (PM3) in Sandersdorf-Brehna, Germany. Earthworks for the new paper machine already started in January 2019 and, subject (among other things) to obtaining the missing regulatory approvals and construction proceeding according to plan, we currently expect this further state-of-the-art paper machine to start production in the second half of 2020, with a total annual containerboard capacity of approximately 750,000 tons. Once PM3 has commenced operations, we also plan for further specialization of our then three paper machines which we expect will further enhance the productivity of all our paper machines as each paper mill will be able to focus on clearly defined paper categories. Following completion of the ramp-up phase of this potential further paper mill, this would mean an increase of the total annual containerboard capacity of Paper from currently approximately 1,100,000 tons to approximately 1,850,000 tons. The proposed new paper machine (PM3) will have a 9.2m trim width, which would allow us to optimize containerboard production to meet the requirements of the more modern corrugators with trim widths of 2.8m or 3.3m at most of our newer corrugated board production sites, which would result in low volumes of cutting scrap and higher productivity.

BOARD

Board encompasses our production of high-quality corrugated board at our ten production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom, with a total annual production capacity of approximately 1,440,000 tons of corrugated board.

More than 43% of our total corrugated board production capacity is located in Germany where we have a total annual corrugated board production capacity of approximately 620,000 tons at four different production sites. Our German corrugated board production sites primarily serve the German market.

Our production site in Douvrin, France, has an annual corrugated board production capacity of approximately 85,000 tons and primarily serves markets in France and in the Benelux countries.

Our plants in Rokycany, Czech Republic, Strykow and Trzcinica, Poland are well-positioned to serve Eastern European markets. Our Rokycany site has an annual corrugated board production capacity of approximately 140,000 tons and our Polish sites in Strykow and Trzcinica have an annual corrugated board production capacity of approximately 170,000 and 125,000 tons, respectively.

The production at our new corrugated board production site in Drizzona, Italy commenced in early March 2018, with an annual corrugated board production capacity of approximately 100,000 tons. It marked our entry into the largest corrugated sheet board market in Europe.

In addition, with the establishment of our new corrugated board "mega plant" in Ellesmere Port, United Kingdom to replace our now decommissioned corrugated board production site located just a few kilometers from the new site and its commencement of production in January 2019, we have now also become a significant player in the market of the United Kingdom. This newest corrugated board production site operates with a 3.35m trim width and has an annual corrugated board production capacity

of more than 200,000 tons, more than double the production capacity of approximately 85,000 tons of the old site, which we established in 2009 with a used corrugator with a 2.5m trim width.

We have already commenced construction of a further corrugated board production site (PW13) in Eisfeld, Germany (with test production expected to start in the fourth quarter in 2019 or the first quarter of 2020). In addition, we further expect to establish up to three further corrugated board production sites between 2020 and 2023 including a further corrugated board “mega plant” (PW14) which is envisaged to commence production in late 2020 or early 2021.

Since the establishment of our Group, we have planned and developed our production sites primarily as greenfield projects and, more recently, as packaging park projects to ensure the optimal geographic location as well as a high technological standard for each site. Our Board operations focus on the efficient and flexible production of customized small batch series, with a high degree of automation at all our production sites, both with respect to the production process itself as well as order handling. We believe we offer significant added value to our customers by offering fully automated online ordering, reliable and just-in-time delivery within 24 hours for selected products and online order tracking. For more information, see “—*Information Technology and Process Management*”.

Our range of Board corrugated board products includes all customary single-wall, double-wall and triple-wall flutes, and we have devoted significant time and efforts to developing a range of “next generation” products which feature reduced raw material consumption while maintaining or even improving technical specifications. For more information about these products, including next board® and next box®, see “—*Sustainability Focus; Research and Development*”.

In 2018, our Board operations generated €840.8 million in sales or 87.0% of our total sales in 2018. We have established a strong and long-standing customer base, with some of our customer relationships dating back to the beginning of our operations in 1992. We have grown with our large German customers and have also successfully entered into new relationships with key customers outside of Germany. Today we supply 350 to 400 different Board customers. In 2018, our five largest Board customers accounted for approximately 20% and our ten largest Board customers for approximately 28% of our corrugated board sales by volume. The same year, our largest single customer generated approximately 7% of our total corrugated board sales by volume.

We have established long-term strategic business relationships with many of our largest corrugated board customers. We believe that our ability to provide reliable delivery of high-quality, cost-effective and tailor-made products and being a family-owned business have enabled us to foster strong partnerships of mutual dependence with our mostly family-owned customers, operating as a fundamental part of their supply chains by improving inventory management, security of supply and customer service. However, consistent with industry practice, our business relationships are not governed by long-term agreements with fixed prices and sales volumes.

We believe that our differentiated business model is particularly beneficial for many of our small to medium-sized customers with a decentralized production. For some of our larger customers that purchase a high percentage (typically 70% or more) of their corrugated board requirements from us, we offer predictable pricing for our corrugated board products through index pricing arrangements. In addition, at some of our corrugated board production sites, certain long-standing customers have established their own box manufacturing plants in immediate proximity to our site, either on our own land or on land adjacent to our site (so-called “packaging park”). As a variation of this traditional packaging park model, we commenced production in October 2015 at our corrugated board production site (PW9) in Plössberg, Germany, which we established in immediate proximity to an existing packaging plant of our customer, Liebensteiner Kartonagenwerk, on land owned by our customer. As a further variation of the packaging park model, we commenced production in the first quarter of 2017 at our corrugated board production site (PW10) in Trzcinica, Poland on land we purchased from our large customer Janmar Centrum adjacent to its existing packaging plant. All versions of the packaging park model help us to further strengthen our relationships with key customers and benefit both us and the relevant customers. The high level of integration between our own corrugated board production and the box production of our customers also made possible through the packaging park model creates a number of efficiencies and largely eliminates freight and other logistics costs between Board and our packaging park customers. Our packaging park customers also typically purchase a very high percentage (up to 100%) of their corrugated board requirements for the relevant box plant from us, which means predictable, high volume orders and consistently high utilization levels for the relevant corrugated board production sites. To ensure a

predictable pricing mechanism for all parties, we also typically have index pricing arrangements with our packaging park customers.

In 2018, approximately 11% of our total volume sales by surface area were generated under index pricing arrangements with our customers. The prices under these arrangements are linked to a containerboard market price index. Although these arrangements generally do not involve minimum sales volumes, demand levels are typically stable and we are in regular contact with our customers to ensure we have reasonable visibility over sales volumes for the upcoming year. In addition, approximately 19% of our volume sales by surface area in 2018 were attributable to packaging park customers. Customers accounting for approximately 69% of our volume sales by surface area in 2018 submitted their orders electronically and communicated directly with our IT systems via e-box, which offers those customers certain benefits in terms of order processing and tracking. It typically takes approximately two to three months for containerboard mills to pass on their raw material price increases to their customers, *i.e.*, manufacturers of corrugated board. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for corrugated board manufacturers, including us, to pass these increases on to their customers.

PRODUCTION FACILITIES AND THE CHP

The following table provides an overview over our ten corrugated board production sites (PW2 - PW12) as well as our two paper mills (PM1 and PM2) and our combined heat and power plant (CHP):

Site	Size (land)	Property owned/ leased	Approximate Annual Production Capacity (in tons, unless otherwise noted)	Use
Douvrin, France (PW2)	68,323 sqm	Owned	Production Capacity: 85,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse
Burg, Germany (PW3)	53,807 sqm	Owned	Production Capacity: 140,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse
Rokycany, Czech Republic (PW4)	126,704 sqm	Owned	Production Capacity: 140,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse
Schüttorf, Germany (PW5) .	131,581 sqm	Owned	Production Capacity: 180,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse/high rack warehouse
Offenbach/Queich, Germany (PW6)	155,857 sqm	Owned	Production Capacity: 200,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse/high rack warehouse
Strykow, Poland (PW7)	239,138 sqm	Owned	Production Capacity: 170,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouses/high rack warehouse
Plössberg, Germany (PW9) .	27,608 sqm	Leased	Production Capacity: 100,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse
Trzcinica, Poland (PW10) . . .	27,620 sqm	Owned	Production Capacity: 125,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse
Drizzona, Italy (PW11)	24,722 sqm	Leased	Production Capacity: 100,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse
Ellesmere Port, United Kingdom (PW12)	178,588 sqm	Owned	Production Capacity: 200,000	<ul style="list-style-type: none"> • Office space • Corrugated board production • Warehouse
Burg, Germany (PM1)	235,522 sqm	Owned	Production Capacity: 420,000	<ul style="list-style-type: none"> • Office space • Containerboard production • Warehouse
Eisenhüttenstadt, Germany (PM2)	256,125 sqm	Owned	Production Capacity: 680,000	<ul style="list-style-type: none"> • Office space • Containerboard production • Warehouse
Eisenhüttenstadt, Germany (CHP)	67,585 sqm	Owned	Energy Generation Capacity: 150 MWth (steam) and 32 MWe (electricity)	<ul style="list-style-type: none"> • Office space • Combined heat and power plant • Refuse-derived fuel bunker

PROCUREMENT/PURCHASING

Overview

Our most important purchasing items include recycled paper, containerboard, energy and freight, which collectively accounted for 75% of our total procurement volume in 2017 and 77% in 2018. For these purposes, total procurement volume is defined as cost of material, other operating expenses and income from passing through the cost of gas to Sales & Solutions GmbH.

The following table sets forth the total cost in euros for each of these items in the year ended December 31, 2016, December 31, 2017 and December 31, 2018, the three months ended March 31, 2018 and March 31, 2019 and the twelve months ended March 31, 2019:

	Year ended December 31,			Three months ended March 31,		Twelve months ended March 31,
	2016	2017	2018	2018	2019	2019
				(unaudited)		
				€ in million		
Recycled paper	146	163	116	35	29	111
Containerboard	114	160	247	49	55	253
Energy ⁽¹⁾	53	54	70	17	17	71
Freight ⁽²⁾	61	62	67	17	19	69

(1) In addition to the cost of electricity, gas and steam, “Energy” also includes the cost of water and waste water treatment as well as income from passing through the cost of gas to Sales & Solutions GmbH in 2016, 2017 and 2018. Therefore, energy cost stated above differ from the energy cost shown as part of cost of materials.

(2) In 2016, we re-classified certain accounts within operating expenses in further development of our investor reporting. As a result, the way we calculate freight expenses for the years ended December 31, 2016 as presented in the table above differs slightly from the way we previously calculated them.

Other procurement items, such as starch or maintenance services, accounted for an aggregate of €143 million in 2017 and €152 million in 2018.

Most of our procurement and purchasing activities are concentrated in a centralized purchasing organization at our headquarters in Landau, which is responsible for purchasing containerboard, freight services, energy as well as other supplies. In addition, our two paper mills in Burg and Eisenhüttenstadt have local purchasing departments that are responsible for “technical” purchases, including starch, chemicals, maintenance services as well as other technical supplies. Our local purchasing department at our paper mill in Eisenhüttenstadt also centrally handles all purchases of recycled paper for the Group. By centralizing many of our purchasing activities, we aim to maximize our purchasing power, while at the same time building a high degree of expertise. The markets and prices for the most important production costs in our business, such as containerboard, energy and recycled paper, are driven by international supply and demand and require Group-wide purchasing strategies in order to optimize results. Our strategies include a mixture of mid-term supply contracts and spot purchasing of raw materials.

The main raw material for the production of containerboard is recycled paper. As described above, all recycled paper for the Group is purchased centrally by our local purchasing department at our paper mill in Eisenhüttenstadt. In 2017 and 2018, Paper purchased a total of approximately 1,133,000 tons and 1,121,000 tons, respectively, of recycled paper from a broad portfolio of more than 50 suppliers. Prices for recycled paper have been highly volatile in the past. By improving our supplier portfolio management, we have been able to improve our average purchasing conditions in recent years. In making our purchasing decisions with respect to recycled paper, we can choose from a wide variety of suppliers. For the bulk recycled paper grades B12 and B19, we have entered into long-term supply agreements with a volume of 1,163,200 tons, which we expect to cover effectively all our related requirements. We purchase approximately 9% of our total recycled paper requirements under fixed volume contracts with a term of between one and four years and either fixed prices or index-linked prices. For approximately 49% of our total recycled paper purchases, we renegotiate prices on a monthly basis. Approximately 51% of our recycled paper purchases involve prices linked to relevant indices, such as Euwid or indices published by the German Federal Statistical Office (*Statistisches Bundesamt*).

The main input cost for our production of corrugated board is containerboard. In 2017 and 2018, Board purchased approximately 1,073,000 tons and 1,227,000 tons, respectively, of containerboard. Approximately 75% to 85% of which were supplied internally by Paper. The remainder was purchased

from a portfolio of approximately 30 external containerboard suppliers. External purchases of containerboard primarily involved purchases of kraftliner and white testliner. To reduce transportation costs for shipments of containerboard from our paper mills to our corrugated board production sites, we also enter into swap agreements with other containerboard producers from time to time. By maintaining a high share of internally sourced containerboard, we can ensure a consistently high quality of the containerboard we use, which has a positive impact on the operational performance of the equipment we use in our corrugated board production processes. In addition, our own containerboard production capabilities at Paper allow us to cater to the specific needs of our corrugated board production at Board.

Energy

The production of containerboard is very energy intensive. The operation of our two paper mills accounted for 91% of the total energy consumption of all our production sites (i.e. not including energy consumption of our headquarters in Landau) in 2018, and the operation of our ten corrugated board productions sites at that time together with our CHP accounted for the remainder. Electricity and steam are the primary forms of energy required for our production operations.

Notwithstanding increases in production volumes, our energy costs have declined in recent years for a variety of reasons, including (i) our efforts to reduce energy consumption, in particular with regard to PM2, (ii) falling energy prices, (iii) the optimization of our energy procurement processes, (iv) the optimization of the operating costs of the CHP, in particular with regard to ash disposal, as well as (v) the full utilization of all available accommodations, credits and refunds under applicable energy laws and regulations. For more information about our energy management efforts, see “—*Sustainability Focus; Research and Development*”.

In addition, the CHP ensures a reliable, long-term supply of steam to PM2. As a back-up solution for the supply of steam in case of a maintenance or other shutdown of the CHP, a nearby power plant in Eisenhüttenstadt can also supply steam to the PM2. The CHP Acquisition was a significant further step in our efforts to optimize our cost structure as significantly reduced our energy costs as a result of the CHP Acquisition. See “*Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results of Operations—The CHP Acquisition*”. Other energy supply agreements we enter into typically have a maximum term of one year. For larger energy procurement quantities, we may make use of tranche models to contract for annual volumes at different times, for different tranches and prices of our total energy requirements and for different periods. This allows us to maintain a maximum amount of flexibility to respond to changing market conditions.

Freight/Logistics

At each step of our internal value chain and production processes, we coordinate and monitor complex logistics processes to ensure the efficient flow of materials and products. This includes the shipment of large rolls of containerboard from our two paper mills in Germany to our ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom as well as the shipment of our finished corrugated board to our customers in the packaging industry (box plants).

We meet our freight and logistics requirements mainly through the use of external logistics companies and, to a much lesser extent, our own fleet of currently 59 trucks. Due to the relatively large size and weight of our products compared to value, freight and logistics expenses play an important role in the profitability of our business. The selection and commissioning of our external logistics partners is centrally organized by our logistics department in Landau, supported by our logistics specialists at Logistics in Burg.

The support of our own team of logistics specialists at Logistics also provides us with real-time insight into the latest developments in the market for transportation services, which allows us to strategically employ the use of our own fleet of trucks. In addition, our own fleet gives us the ability to cover temporary capacity constraints in the market. Other targeted optimization measures which have resulted in a reduction of related transportation costs include (i) the development of specialized transport cradles for our containerboard rolls, which allow for a more efficient use of the cargo hold of each truck, (ii) the hiring of trucks with cargo holds best suited for our transportation needs, (iii) improved journey planning and (iv) better coordination of loading and offloading times.

SALES AND MARKETING

Our sales team is tasked with achieving the sales, margin and volume targets defined by our management. A central element of our sales efforts is the provision of strong customer support for our existing customer base and the establishment and maintenance of strong relationships with purchasing managers and other key decision makers within our customers' organizations. Other key elements of our sales efforts involve winning new customers, especially in new markets, and the introduction of new products.

To ensure we meet the targets defined by our management, we have implemented a sales management system within our sales organization that is designed to monitor our performance against our volume targets. In addition, we have implemented a centralized pricing system to ensure a proper framework for achieving our sales and margin targets.

Our marketing team supports our sales team and provides it with market-focused concepts and a full set of marketing tools. In addition to supporting the Group-wide targets defined by our management, our marketing efforts are also aimed at further strengthening our product brands (e.g., Progroup Paper, Progroup Board, Progroup Logistics, next fibre®, next board® and next box®) and maximizing their value.

A key condition for a consistent brand image is the presentation of a clear and consistent external appearance, which we try to ensure through a full package of coordinated marketing tools and marketing activities. We believe this also benefits our packaging customers, as it can help support their own product marketing with their end-customers.

In 2018, our sales and marketing teams employed an average of 42 full-time employees (40 in 2017).

INFORMATION TECHNOLOGY AND PROCESS MANAGEMENT

As described above, we principally generate revenue through the sale of containerboard and corrugated board. Our mills primarily sell the containerboard we produce to Group-owned converting operations and we sell our corrugated board to our third-party customers in the packaging industry. The operation of our production plants as well as our sales and service activities depend on the efficient and uninterrupted operation of complex and sophisticated computer, telecommunication and data processing systems.

Our value chain starts with recycled paper, which is the primary raw material in the production of containerboard. In managing our supply of raw materials, we need to constantly monitor our internal needs for containerboard, which we primarily meet through our own mills in Burg and Eisenhüttenstadt as well as, to a much more limited extent, third party containerboard producers.

Between each of the further steps along the value chain and our production process, we need to coordinate and monitor complex logistics processes to ensure the efficient flow of materials and products. This includes the shipment of large rolls of containerboard from our mills to our corrugated board plants at ten other locations in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom as well as the shipment of our finished corrugated board to our customers in the packaging industry (box plants).

Our corrugated board plants process up to approximately 4,600 individual customer orders for corrugated board each day with a total volume of approximately 9.88 million square meters. At each plant, we prepare and load up to 90 truckloads of corrugated board every day.

Our IT infrastructure needs to be able to support all these processes, including by helping us to optimize:

- our use of raw materials (raw material management);
- our production planning and production control (minimization of cutting scrap);
- our warehouse management for both raw materials and finished products; as well as
- the coordination of loading and offloading times.

In 2018, approximately 69% of purchase orders for corrugated board from our Board customers were received electronically (69% in 2017), and all material core processes, which need to be coordinated and timed efficiently to ensure the smooth and efficient operation of our production processes, are being controlled by our central WEPAFORM-server and by local WEPAFORM servers at each plant.

WEPAFORM is our proprietary core ERP system we use across the Group and which implements our internal know-how in the form of best practices and rules of conduct. The functionality of WEPAFORM covers all our core processes, including order processing, raw materials planning, production planning, production control as well as warehousing, shipment and invoicing. WEPAFORM implements both the rules of conduct of our individual departments as well as those rules of conduct that apply Group-wide, which ensures the implementation of our Group-wide business strategies.

For example, in response to a requested delivery date in a customer purchase order, we try to automate, as much as possible, the confirmation of the actual delivery date for products covered by the relevant order. This actual delivery date will be determined based on a combination of factors, such as optimal transportation planning (including with regard to load capacity, offloading times and punctuality) as well as optimal production planning (*i.e.*, feasibility and minimization of cutting scrap). This determination, in turn, will take account of all other pending orders at the time as well as the availability of freight options. All these complex determinations are controlled and automated through WEPAFORM.

While all our core processes are covered by our proprietary WEPAFORM system and we use our e-box platform for purchase order related electronic communications with our Board customers, we also use a number of additional software applications to support other business processes, including standard non-proprietary applications for accounting (SAP), payroll processing (LOGA) and equipment maintenance (MAXIMO) and transport management for Logistics (Carlo).

To support the various software applications we use within the Group, including WEPAFORM, we operate our own data centers. Our main data center is located in Offenbach a.d. Queich, Germany, and is connected to our headquarters in Landau, Germany, with a dedicated line. All our German sites are connected via leased MPLS lines to our main data center, while our foreign production sites are connected to our main data center via VPN over the Internet. At our site in Burg, Germany, we operate a local area network (LAN) which connects our local containerboard (Board), corrugated board (Paper) and logistics operations (Logistics) and which, in turn, is connected to our main data center via leased MPLS lines. To reduce the risk of a disruption of individual Internet connections between our various facilities and our main data center, we maintain alternative back-up Internet routes for each facility. Additionally, to ensure business continuity on application level for our core production processes, we operate WEPAFORM manufacturing execution processes edge datacenters in our plants in case of network issues. To host our software applications, we use ESX-Server farm based on NETAPP Storage systems. Relevant software applications are made available remotely to all users with the Progroup network via CITRIX XenApp.

In 2018, our IT department employed an average of 20 employees (16 in 2017), including management positions, team leaders, administrative assistants and software developers. In addition, we worked with five external IT consultants and, with regard to the non-proprietary applications we use, cooperated with the relevant software developers and their partners. Given the strong reliance of our business on information technology, the success of our business depends on our continuing ability to attract and retain qualified IT personnel in the long-term, which has been challenging in the past given an increasing shortage of qualified personnel, especially in Germany.

SUSTAINABILITY FOCUS; RESEARCH AND DEVELOPMENT

Promoting the sustainability of our core businesses, *i.e.*, the production of containerboard and corrugated board, has been a key priority for our Group, not only from an environmental perspective, but also as a matter of pure economic necessity. Containerboard cannot generally be differentiated by producer, and this standardization has led to intensified price competition within our industry. In addition, our operating results are significantly impacted by the containerboard and corrugated board industry's historical cyclical pattern, with periods of overcapacity and resulting pressure on the pricing of our products. These pressures can be further exacerbated by significant volatility in our key input costs, in particular the cost of recycled paper, energy costs and freight costs.

As a result, we are forced to continuously improve our product designs, optimize the utilization of our assets and explore new ways to further reduce our input costs. In practice, this means that we are undertaking significant and ongoing efforts to further reduce the use of fibre (*i.e.*, recycled paper) in our products as well as the amount of energy required for our production processes and the shipment of our products, which helps us both to maintain a cost leadership position within our industry (with the goal of safeguarding our profit margins) and to help the environment by reducing our CO₂ footprint.

As a result of the factors described above, we believe there are general “mega trends” towards lighter and more functional packaging and towards a more efficient use of resources. The trend towards “light paper” (*i.e.*, containerboard) has been particularly strong in Germany and has been further strengthened by high growth rates in e-commerce, which have led to an increase in demand for light and safe packaging solutions.

We believe that we are particularly well-positioned to capitalize on these trends with our paper mill in Eisenhüttenstadt, Germany (PM2), which specializes in the production of super-light-weight to medium-

weight containerboard with grammages of 60-130g/m². With regard to the production of super-light-weight containerboard (with a grammage below 90g/m²), which is currently particularly sought-after in the market, we believe that our paper machine PM2 gives us a significant advantage over many of our competitors, both in terms of efficiency and product quality. Based on a study by Vision Hunters, we believe PM2 is among the world's most advanced paper machine for recycled super-light-weight paper and has set five new world records since its launch in 2010. Our subsidiary Progroup Paper PM2 GmbH, which operates our paper mill in Eisenhüttenstadt, is certified under the Eco-Management and Audit Scheme ("EMAS"), a voluntary scheme set up by the European Union that is designed to help companies to continuously improve their environmental performance. The EMAS certification of Progroup Paper PM2 GmbH also carries several advantages for our business. Among other advantages, it (i) results in simplified reporting obligations under the German Federal Emission Law (*Bundes-Immissionsschutzgesetz*, "**BImSchG**"), (ii) allows us to take advantage of certain accommodations and credits under the German Renewable Energy Law (*Erneuerbare-Energien-Gesetz*, "**EEG**") and the German Co-Generation Law (*Kraft-Wärme-Kopplungsgesetz*, "**KWK**"), (iii) serves as the basis for certain energy tax refunds in Germany, (iv) allows us to take advantage of certain fee discounts in connection with certain regulatory approval processes in Germany, and (v) generally improves our corporate image as an "eco-friendly" company. The current EMAS certification for our mill in Eisenhüttenstadt and Progroup Power 1 GmbH is valid until July 4, 2020 and June 4, 2020, respectively.

To support the EMAS certification of Progroup Paper PM2 GmbH as well as other environmental certifications and to generally improve our energy management, we have implemented energy management systems ("**EnMS**") at our two paper mills in Eisenhüttenstadt and Burg, the operation of which is particularly energy intensive, as well as all of our corrugated board production sites. In addition to the advantages described above, the implementation of EnMS at our various sites also has the following benefits for our business: (i) it helps us monitor compliance with applicable environmental regulations, (ii) increases the transparency of our internal production processes, (iii) enables a clear allocation of internal responsibilities and tasks, (iv) serves as the basis for potential efficiency improvements by helping us identify potential cost savings, and (v) reduces the risk of potential environmental liability. The containerboard produced by both our two paper mills is also certified by the Forest Stewardship Council (FSC).

In addition, we spent significant time, expense and effort developing a "green" range of "next generation" products working in a close cooperation with BHS Corrugated GmbH, one of our equipment suppliers, and a team of researchers at the University of Applied Sciences (*Hochschule für angewandte Wissenschaften*) in Regensburg, Germany, over a period of several years. We market the resulting products under our own brands next fibre®, next board® and next box®. All these product innovations involve the use of the super-light-weight containerboard produced by our paper machine PM2 as well as innovative flute designs/corrugated board formats.

Next fibre® is the brand under which we market a new generation of super-light-weight containerboard produced by our paper machine PM2. Our goal in developing this new generation of containerboard was to minimize the amount of fibre and energy used in its production, while at the same time maximizing its performance. The result of our efforts is a much lighter containerboard with consistently high paper homogeneity and a much optimized production process in terms of energy consumption, repulping and moisture monitoring. In addition, TÜV Rheinland, an independent German standards organization, certified significant reductions in the CO₂ footprint for our next fibre® containerboard, specifically a 52% reduction in CO₂ emissions per ton of paper produced compared to conventional containerboard. In addition, next fibre® containerboard features significantly more roll weight running meters per containerboard roll during transport as a result of the reduced weight, resulting in further reductions in CO₂ emissions by 11% and 24% for grammages of 90g/m² and 80g/m², respectively.

Next board® is the brand under which we market our new generation of corrugated board products produced with our next fibre® containerboard. Due to a combination of the use of the lighter containerboard and innovative and improved flute designs and general board architecture, this range of corrugated boards is not only lighter than conventional corrugated board, but also offers our customers better performance characteristics, a better surface and printability, lower logistics costs and a better life-cycle assessment. The improvements due to the new board designs include edge crush resistance (ECT) values which are up to 15% higher compared to conventional corrugated board with the same weight/raw material content. Next board® products also feature an average reduction in CO₂ emissions per ton of corrugated board of 15% compared to conventional corrugated board, as certified by TÜV Rheinland, a 5% reduction in CO₂ emissions during transport and a 16% increase in the loadable

corrugated board surface area, meaning that approximately one in every seven truck journey can potentially be avoided.

Next box® is a label we make available to our packaging customers they can use for eco-friendly and sustainable packaging produced with our next board® corrugated board products. Next board® corrugated board allows for more exact processing compared to comparable conventional corrugated board, as well as more reliable machinability and higher running rates. Next box® packaging features a smooth look without any ripple effect and permits optimal printing results due to our improved corrugated board designs. In addition, next box® products allow for more efficient storage and reduce transportation costs due to the reduced raw material content. We believe that sustainability and eco-friendliness are of increasing importance to our customers, especially in Germany. To allow our customers in the packaging industry as well as their end-users to highlight their own commitment to sustainability, we therefore make our next box®—reduced CO₂ label available to them, which can be stamped on all next box® packaging.

EMPLOYEES

In 2018 we employed an average of 1,096 employees (excluding trainees) in six countries (1,040 for the year ended December 31, 2017). Approximately 71% of our employees are employed at our headquarters in Landau, Germany, and at our six production sites in Germany. As of December 31, 2018, we had 314 employees outside of Germany, including 48 employees in France, 60 employees in the Czech Republic, 119 employees in Poland, 61 employees in the United Kingdom and 42 in Italy.

Our workforce is characterized by low fluctuation levels, and the average job tenure of our employees across all our sites is seven years. As a result of our continuous hiring strategy and long-standing training programs, we believe our workforce currently has a well-balanced age structure. As of December 31, 2018, we had 34 trainees.

With the exception of our employees in France and at Progroup Power 1 GmbH, our workforce is not subject to any collective bargaining agreements and there are no works councils. In accordance with the French Works Constitution Act, a works council represents our employees at our corrugated board production site in Douvrin, France. At Progroup Power 1 GmbH our employees are also represented by a works council.

INSURANCE

We maintain various insurance policies for different aspects of our business. These policies are centrally managed by our legal and insurance department in Landau, with the support of our insurance broker S&P Schulz & Partner GmbH, Mannheim. Our insurance coverage includes all-risk policies insuring against property destruction, damage and loss, as well as against any business interruption directly resulting from any property damage. In addition, we maintain liability insurance coverage with regard to general operating liability, radiation liability and environmental liability, as well as transport and accident insurance. We obtain insurance coverage for particular risks based on an internal risk analysis. We believe that we maintain adequate insurance coverage commensurate with our business and production volumes and in line with industry practice, with deductibles and coverage limits that we believe to be reasonable and appropriate. We continuously re-evaluate the appropriateness of our insurance coverage in the ordinary course. There can be no assurance, however, that we will not suffer losses that may either not be covered by insurance or that may exceed the coverage amount under the relevant insurance policies.

REGULATORY ENVIRONMENT

Our business, and in particular the operation of our production sites, is subject to various regulatory requirements. Applicable laws and regulations may differ from site to site due to different national and local laws. The regulatory requirements relate in particular to our production processes and include, *inter alia*, laws and regulations relating to health and safety measures for employees, the technical safety requirements for operating machines, the use and handling of chemicals, air and water emissions, soil contamination and the management and disposal of waste, hazardous and toxic substances and other materials. For our sites and operations, we are required to obtain and hold various permits and to comply with the requirements specified therein. We are further subject to foreign trade laws and may be required to pay export duties or customs duties on materials and products that we export and import. We are subject to further regulations in the various jurisdictions in which we operate, including antitrust laws and zoning and occupancy laws that generally apply to manufacturing businesses and/or govern the promotion and sale of the products we offer, the operation of our facilities and our relationships with customers, suppliers

and competitors. The following is an overview of the main laws and regulations that are relevant to our activities in Germany. Local laws and regulations that deal with similar aspects apply in other jurisdictions in which we operate production sites or sell our products.

Environmental Laws

We are required to comply with various environmental laws and regulations. In particular, our operations are subject to laws and regulations designed to limit emissions. In Germany, the construction and operation of our paper mills requires active permits under the Federal Emissions Protection Act (*Bundes-Immissionsschutzgesetz*, “**BImSchG**”), which encompasses various approvals necessary for the construction and operation of facilities pursuant to other laws, including public-law approvals, registrations and consents. The operation of the relevant facility can generally not be challenged or contested by third parties as long as the respective facility operates in compliance with its permit. In such cases, third parties can only require certain measures to mitigate any negative impact of a facility on the environment. To the extent such measures are impossible or uneconomical to implement based on state-of-the-art technology, the relevant third parties may only claim damages. Permits and additional administrative orders under the Federal Emissions Protection Act may impose certain limitations (e.g., stricter requirements with regard to permissible emissions or the use of the relevant facilities), with which we have to comply. To the extent new legal standards are introduced, permits will not be grandfathered but adjusted so they meet the relevant new standards. A violation of the operator’s duties as determined in the respective permit (or an additional administrative order) or a modification of the relevant legal standards may also lead to a restriction or, in severe cases, a prohibition of the further operation of the facility and/or the revocation of its permit under certain circumstances. The competent authority may also impose administrative fines or even ask for removal of the facility.

Moreover, the operation of our two paper mills is subject to the various duties of the Federal Water Management Act (*Wasserhaushaltsgesetz*, “**WHG**”), the State Water Acts in each of the German states (*Landeswassergesetze*) and the respective federal and/or state ordinances (*Rechtsverordnungen*). These regulations govern our use of water during production. According to the Federal Water Management Act, as well as the corresponding State (*Länder*) laws, the use of water generally requires the approval by the competent authority. In particular, the extraction of above-ground water, the discharge of waste water and the pouring and discharge of materials are all aspects of our containerboard production that require regulatory approval. In cases of violations of the relevant provisions, we may be required to pay damages or become subject to penalties. Depending on the type of permit, it may be limited in time and it may either be revoked any time or only under certain circumstances.

The CHP in Eisenhüttenstadt (Power) also requires various regulatory approvals for its operation, particularly under the BImSchG and the 17th Ordinance to the BImSchG on the incineration and co-incineration of waste. Furthermore, operations have to comply with the applicable greenhouse gas emissions caps. See “—Regulation governing the Operation of the CHP—Environmental laws and other related laws and regulations” and “—Regulation governing the Operation of the CHP—Carbon Emission compliance” below.

Both our paper mills are subject to the German Radiation Protection Ordinance (*Strahlenschutzverordnung*, “**StrlSchV**”) due to the fact that our paper machines include various measuring devices (e.g., for measuring paper basis weights, paper moisture and/or paper ash) that rely on the use of a number of slightly radioactive isotopes (*i.e.*, Cobalt-60, Krypton-85, Cesium-137 and/or Iron-55). The use of these materials and devices is common in the paper industry as well as in other industries. They are applied in enclosed form, *i.e.*, isotopes are enclosed by a protective cover to avoid any release of radiation. When the isotopes are not in use, they are further shielded with steel plates. According to Sec. 7 of the Radiation Protection Ordinance, the handling of the relevant radioactive isotopes requires permits, which we have obtained. Even if these permits would be revoked, however, we would be able to switch to using different measuring devices based on different technologies. We also maintain insurance coverage for liability resulting from radiation.

Waste Legislation and Regulations

The use of waste (as a substitute fuel within Power’s CHP) is subject to European and German waste legislation. Among others, the German Act on the Federal Waste Management Act (*Kreislaufwirtschaftsgesetz*, “**KrWG**”) and corresponding regulation, such as the Packaging Act (*Verpackungsgesetz*, “**VerpackG**”) and the List of Wastes Ordinance (*Abfallverzeichnisverordnung*, “**AVV**”),

stipulate certain standards and requirements. Apart from that, the use of waste containing Hexabromcyclododecan (“**HBCD**”), which is, *inter alia*, contained in insulation boards that in the past have been used as a substitute fuel within the CHP, was subject to usage restrictions and additional documentation requirements under the Regulation (EC) No. 850/2004 on persistent organic pollutants (“**POP Regulation**”). Power has held meetings with its suppliers to resolve potential issues in this respect.

Chemicals Legislation and Regulations

We use a number of chemicals in our production processes and are therefore subject to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (“**REACH**”). The aim of REACH is to improve the protection of human health and the environment through better and earlier identification of the intrinsic properties of chemical substances. REACH places greater responsibility on industry participants to manage the risks from chemicals and to provide safety information on the substances. As a “downstream user” pursuant to REACH, we are primarily required to adhere to the recommended risk reduction measures, to forward our customers and suppliers the relevant information and, if necessary, to arrange for a chemical safety report to be prepared.

In addition, we are subject to the provisions of the German Chemicals Act (*Gesetz zum Schutz vor gefährlichen Stoffen—Chemikaliengesetz*, “**ChemG**”) and related ordinances (*Rechtsverordnungen*). The Chemicals Act is intended to minimize the risks from chemicals for humans and the environment. Based on the Chemicals Act and related regulations, the competent authorities have the power to—among others—require that certain materials or chemicals (i) may either not be produced, marketed or used at all, (ii) may only be produced, marketed or used in a certain manner or for specific purposes, (iii) may only be used under certain circumstances or (iv) may only be distributed to certain persons. We are not aware of any such orders having been issued by the German government authorities that would have an impact on our business.

Soil Contamination

Pursuant to the German Federal Soil Protection Act (*Bundes-Bodenschutzgesetz*, “**BBodSchG**”), the responsibility for residual pollution and harmful changes to the soil lies with the party who caused a harmful soil change or a contaminated site, its universal successor, the relevant property owner, the occupant of the relevant real property and, if the title was transferred after March 1, 1999, the previous owner of the property, if they knew or must have known about the contamination. There is no general statutory ranking as to which of the aforementioned parties is primarily liable. Rather, this decision is made at the discretion of the relevant local authority who will take into account the effectiveness of remediation as a prevailing factor. Thus, the current owner of the contaminated property is usually the first party to be held responsible because the owner is generally in the best position to undertake the necessary remediation work. However, the other responsible parties are required to indemnify the party that carried out the remediation work, regardless of which party is held liable by the relevant local authority. Where no other arrangements are agreed upon, the obligation to provide compensation and the extent of the compensation to be provided depend on the extent to which the hazard or damage was caused primarily by one party or the other. Liability is not based on fault. Thus, the BBodSchG does not require the relevant local authority to prove negligence or intent on the part of the liable parties.

According to the BBodSchG the competent authority may require risk inspections, investigations, remedial measures and other measures necessary for the prevention of residual pollution or harmful changes in the soil.

Regulation governing the Operation of the CHP

General overview

As a result of the CHP Acquisition, we are subject to a wide range of laws and regulations specifically governing the German energy sector.

The key legislation containing the core provisions of German energy law is the Energy Industry Act (*Gesetz über die Elektrizitäts- und Gasversorgung—Energiewirtschaftsgesetz*, “**EnWG**”).

Other laws and ordinances specifically relevant to the energy sector and the CHP include:

- (i) the Co-Generation Act (*Kraft-Wärme-Kopplungsgesetz*, “**KWKG**”);
- (ii) the Ordinance on Tariffs for Electricity Grid Access (*Stromnetzentgeltverordnung*, “**StromNEV**”);

- (iii) the Ordinance on Incentive Regulation (*Anreizregulierungsverordnung*, “**ARegV**”);
- (iv) the Federal Emission Protection Act (*Bundes-Immissionsschutzgesetz*, “**BImSchG**”);
- (v) the Green House Gas Permission Trading Act (*Treibhausgas-Emissionshandelsgesetz*, “**TEHG**”);
- (vi) the Energy Tax Act/Electricity Tax Act (*Energiesteuergesetz/Stromsteuergesetz*, “**EnergieStG**”/“**StromStG**”);
- (vii) the Energy Services Act (*Energiedienstleistungsgesetz*, “**EDL-G**”) and
- (viii) the Electricity Grid Access Ordinance (*Stromnetzzugangsverordnung*, “**StromNZV**”).

Energy Industry Act (EnWG) and related regulation

The EnWG provides, inter alia, the legal framework for ensuring competition within the German energy markets, mainly by regulating electricity and gas networks to ensure reliable and efficient supply networks. It also implements relevant EU law in relation to energy supply. Companies that supply third parties with energy or own or operate transmission and distribution networks have to ensure that electricity is supplied in accordance with these aims.

Grid access and network tariffs

As grid operators enjoy a natural monopoly, electricity grid operators are obligated to provide connection to and use of electricity grids without discrimination and in a transparent manner.

Electricity grid operators are required to connect third parties, such as generation facilities (including the CHP), to the grid. The conditions for a connection must be non-discriminatory, proportionate, transparent and not less favorable than the conditions granted to a grid operator’s own, affiliated or associated undertakings. A grid operator may refuse the connection if it is, for operational or other economic or technical reasons, impossible or unreasonable. The burden of proving that a connection is economically or technically impossible or unreasonable lies with the grid operator.

Tariffs for grid access are determined by the grid operators in accordance with incentive regulation based on the ARegV and the StromNEV. Under these regulations, revenue caps are set by the regulatory authority for each grid operator for a regulatory period of up to five years based on the cost base of the business three years prior to the start of the regulatory period. The revenue cap displays the average total costs of the grid use in consideration of permanent non influenceable costs (e.g. tax, duties), temporary non influenceable costs, and influenceable costs (also referred to as “inefficiencies”). Besides potential profit from cost reductions, the grid operators can gain a reasonable interest from the used capital. The provisions of the StromNEV and the Ordinance on Tariffs for Gas Grid Access (*Gasnetzentgeltverordnung*) define how to assess the level of the equity interest rate (*Eigenkapitalverzinsung*) before each regulation period. The equity interest rates are set by the German Federal Network Agency (*Bundesnetzagentur*, “**BNetzA**”). For the third regulation periods for gas (2018 to 2022) and for electricity (2019 to 2023), the BNetzA has significantly reduced the equity interest rates. These amendments have led to significant controversies within the energy industry and appeals have been filed at the competent Higher Regional Court of Düsseldorf (*Oberlandesgericht Düsseldorf*, “**OLG Düsseldorf**”) by distribution and transmission system operating companies that are or will be affected by the decrease of the equity interest rate. According to the ruling of the OLG Düsseldorf of March 22, 2018 the reduction of the equity interest rates was unlawful. Currently, the case is pending before the German Federal Court of Justice (*Bundesgerichtshof*, “**BGH**”), after the BNetzA had lodged an appeal against the OLG Düsseldorf’s ruling. A decision is announced to be released on July 9, 2019.

Grid operators’ rights in case of congestion and emergency

Pursuant to the EnWG, electricity grid operators are obliged to ensure the security and reliability of the grid. Therefore, they are entitled and required to take the necessary actions to avoid any risks to the security or reliability of the grid. If the security or reliability of the grid is endangered or disturbed, grid operators are required and authorized to rectify the problem by making use of (i) grid-related measures, which entail technical measures that do not involve the network users, such as internal energy balancing or pressure adjustment; and/or (ii) market-related measures which involve certain network users. Market-related measures are based on contractual agreements between the grid operator and certain users relating to the feed in and off-take of energy which allow energy balancing and making use of interruptible capacities (capacity bookings which are not firm and, therefore, may be interrupted). If the grid operator

cannot eliminate the disturbance by making use of any of these measures, the operator is entitled to adjust and/or reduce feed-ins, electricity transits and electricity off-takes without any obligation to pay compensation. In principle, feed-ins from conventional generation must be reduced before feed-ins from co-generation facilities (such as the CHP) or renewable energy facilities. However, if the grid operator has unreasonably rejected proposals by generation installation operators to conclude agreements on interruptible capacities, compensation must be paid by the grid operator. Furthermore, compensation must be paid to co-generation and renewable energy installations in case of a reduction of feed-ins if disturbances are caused due to grid congestion.

Relevant Amendments of the EnWG and related developments since 2016

In 2016, the EnWG was amended by the Electricity Market Act (*Strommarktgesetz*), inter alia, to strengthen the principle of free pricing in the electricity markets, to establish the basis for further reporting requirements for market participants (including power plant operators) under a central electronic directory of energy-related data (the so-called *Marktstammdatenregister* (“**MaStR**”)), and to implement certain safety measures regarding capacity reserves (namely the so-called “*Kraftwerksreserve*”, “*Netzreserve*” and the “*Braunkohlereserve*”) to ensure the availability of sufficient power capacity. In adopting the amendments, the German legislator essentially affirmed the existing market model (*Energy-only-Market*, “**EOM**”), rejecting calls to implement a wide capacity market in response to recent turbulences for conventional (co-generation) power plant operators caused by the increases in renewable energy generation and the significant drop in prices in the electricity wholesale markets. Based on Sections 111e and 111f of the EnWG, the regulation on the *MaStR* (*Marktstammdatenregisterverordnung*, “**MaStRV**”) entered into force on July 1, 2017. All actors in the electricity and gas market must register in the directory (*Marktstammdatenregister*, “**MaStR**”) for all stationary technical facilities that generate, store or consume electricity or gas. The MaStR creates a comprehensive regulatory register for the electricity and gas market that can be used by public authorities and market actors in the energy sectors. The recourse to the master data of the MaStR represents a significant increase in data quality and data simplification for many energy industry processes. Many regulatory reporting requirements can be standardized, simplified or completely abolished by centralized registration. The MaStR is still under construction. Electricity and gas network operators can only currently register their company in the MaStR web portal. The MaStR has been opened to the market players on January 31, 2019. All market players, depending on the date of their commissioning process (before/after July 1, 2017), are obliged to register or to verify the existing data, at the latest by January 31, 2021.

To further support the functioning of electricity markets, the German Renewable Energies Act (*Erneuerbare-Energien-Gesetz*, “**EEG**”) has also been revised multiple times. The most significant amendments include the definition of expansion targets and the progressive transition to a comprehensive tendering system for all renewable energy technologies. The EEG provides for certain exemptions from the energy surcharge for energy-intensive industries. In 2016, the EEG was amended, lowering the required electricity cost intensity for such exemptions from 17% to 14% as of 2017 for certain industries, such as the manufacture of paper and containerboard. The exemptions in the EEG have to comply with the European environmental energy state aid guidelines which are valid until 2020 in the current version. Furthermore, the German provisions have to meet the requirements established by the Directive 2009/28/EC on the promotion of the use of energy from renewable sources (Renewable Energy Directive). Further amendments of the EEG 2016 came into force on January 1, 2017 (“**EEG 2017**”). The EEG 2017 contains two essential innovations. The remuneration of renewable electricity will primarily be regulated by tenders in future, i.e. the amount of subsidy will be determined by the market and no longer by fixed feed-in remuneration. That ensures the continuous expansion of renewable energies and can reduce the costs of funding provided there is enough competition. Furthermore, the expansion of renewable energies is synchronized with grid expansion. For each technology, certain expansion paths have been set in accordance to the available network capacities. In addition, the expansion of wind power on land in areas with network bottlenecks (*Netzengpassgebiete*) was limited. Most recently, the EEG has been amended by a comprehensive legislative package, the so-called *Energiesammelgesetz* (“**EnSaG**”), which includes amendments of different laws in Germany and entered into force at the end of 2018. As regards the EEG, among others, the expansion paths for wind onshore and photovoltaics have been adjusted. Further, additional tenders regarding these technologies for the years 2019 to 2021 have been implemented. Also, the so-called innovation tenders have been upgraded through larger tender volumes, while the funding tariffs for rooftop photovoltaic systems have been cut. For the self-production of electricity, which under certain conditions is (partially) exempt from the so-called EEG-Umlage (the EEG surcharge), provisions on the metering (or estimate) of own and of third-party electricity consumptions

have been introduced. In light of a recent judgment of the European Court of Justice of March 28, 2019, according to which the EEG (2012) does not contain subsidies, it is conceivable that the legal framework will further be revised by the German legislator taking into account that the strict requirements under state aid law do not (directly) apply to the German funding system.

Apart from the amendments of the EnWG and the EEG, (already in 2016) the foundation was laid for the digital transformation of the energy system. With the Act on the Digitization of the Energiewende (*Gesetz zur Digitalisierung der Energiewende*—“**GDEW**”), the Metering Point Operation Act (*Messstellenbetriebsgesetz*—“**MSbG**”) has been enacted, which contains provisions on the progressive roll-out of intelligent metering systems. However, implementation has so far been slow.

Besides the developments on German national level, the European legislation has also been amended. On November 30, 2016, the European Commission published a proposal for a revised Renewable Energy Directive (COM(2016) 767 final) to make the EU a global leader in renewable energy and ensure that a target of at least 27% renewables in the gross final energy consumption in the EU by 2030 is met. On January 17, 2018 the European Parliament adopted various amendments to the European Commission’s proposal, in particular, to achieve an even more ambitious target of 35% renewables in the Union’s energy consumption by 2030. On December 11, 2018 the European Parliament and the Council of the European Union passed the Directive (EU) 2018/2001 (Renewable Energy Sources Directive), which entered into force on December 24, 2018. The Member States are now required to implement this Directive by June 30, 2021 at the latest.

In the context of the general reforms of the EnWG and the EEG it is noteworthy for conventional (co-generation) power plant operators, that the BNetzA and the European Regulation Authority (Agency for the Cooperation of the Energy Regulators—“**ACER**”) paved the way for a split of the common German-Austrian pricing zone from October 2018 by ordering grid operators to establish a congestion management at the German-Austrian border. This is due to the technical difficulties and the exploding costs regarding renewable energy that is being produced in the northern regions of Germany and transported to the high-consumption centers in the southern regions of Germany. If the common German-Austrian pricing are ultimately split, this may result in higher wholesale electricity prices in the South of Germany.

Network Fees Modernization Act (NEMoG)

On July 22, 2017, the Act on the Modernization of the Grid Tariff Structure (*Netzentgeltmodernisierungsgesetz*, “**NEMoG**”) slightly amended the EnWG, the EEG and the StromNEV to align grid tariffs with the “*Energiewende*”. The NEMoG contains two important aspects: The gradual standardization of transmission network charges and the abolishment of the privilege of the so-called “avoided grid tariffs” (*vermiedene Netzentgelte*).

The transmission grid tariffs will gradually adjust nationwide. For implementation, the NEMoG contains an authorization for the enactment of a regulation by the German Federal Government (*Bundesregierung*) with consent of the German Federal Council (*Bundesrat*). The standardization of transmission grid tariffs will be effected in five steps starting from January 1, 2019. From January 1, 2023, the charges for the transmission grids will be uniform throughout Germany. The costs of the transmission grids currently amount to approx. 25% of the total costs of electricity grids.

Furthermore, Section 120 EnWG stipulates the gradual reduction of “avoided grid tariffs”, the calculation bases of which will be frozen to the level of 2016 starting from 2018. Regarding the gradual reduction, a distinction is made between volatile (sun and wind) plants (*Anlagen mit volatiler Erzeugung*) and controllable generation plants (e.g. CHP). The “avoided grid tariffs” for new volatile plants are completely abolished since 2018 and for existing volatile plants it will be eliminated in three stages from 2018, i.e. that by 2020, volatile plants will no longer be eligible for “avoided grid tariffs” at all. Regarding controllable plants, “avoided grid tariffs” will not be granted to plants, which start their operation after December 31, 2022.

Co-Generation Act (KWKG)

In the interests of energy conservation, environmental protection and achieving the climate protection targets of the German Federal Government, the KWKG aims to increase the share of electricity generated through more environmentally-friendly co-generation facilities, such as the CHP, to 25% of the overall power generation in Germany by 2020. However, due to the drop in the wholesale electricity prices and

due to the ongoing discussions on conventional electricity production, the 25%-target—as of now—will not be achieved.

Grid access and off-take

Grid operators are required to give priority grid access to certain co-generation plant operators, including Progroup Power 1 GmbH as operator of the CHP, with the same priority as that granted to renewable energies and to off-take, transmit and distribute their co-generation electricity on a priority basis. Grid operators are required to off-take the electricity at (i) a price either mutually agreed or determined according to the “standard market price” (if no agreement is reached) *plus* (ii) a certain fixed surcharge and a payment for decentralized feed-in. See “—Off-take pricing” below.

Notwithstanding the obligation to purchase, transmit and distribute electricity from co-generation plants and producers of renewable energy, a grid operator is required to ensure the technical stability of the grid and, for this purpose, is entitled to avoid an overload of the grid by managing the feed-in of electricity from all parties feeding electricity into its grid (feed-in/grid congestion management). If after exhausting certain grid-related and market-related measures, the grid operator has not successfully reduced the overload in the grid and congestion remains, it is entitled to reduce the electricity which can be fed into the grid. Within this mandatory reduction, the grid operator is required to treat the electricity from certain co-generation sources (including the CHP), from renewable energy sources (such as wind farms or solar energy) and from mine gas preferentially. The grid operator is required to implement congestion management by which, in principle, feed-in from installations using conventional energy resources (gas, coal, nuclear fuel) must be reduced first. The political parties forming the current German Federal Government have indicated in their coalition agreement that they intend to amend the legal framework for congestion management (including the rules for compensation, if any, to be paid) while maintaining the general concept of priority access for electricity from renewable sources, as well as from co-generation.

In December 2016, the European Commission published the so-called Winter Package, which includes numerous proposals on legislative acts for energy efficiency and the energy markets. Among other proposal, the package includes a proposal to cancel the priority feed-in for co-generation and renewable energy plants with a capacity of more than 250 kilowatt, which start operating after the implementation of the legislative acts.

Off-take pricing

The grid operator has an obligation to off-take the electricity produced at co-generation plants within the meaning of the KWKG, such as the CHP, at a price mutually agreed between the grid operator and the operator of the co-generation plant plus a surcharge. See “—Surcharge” below. In addition to the surcharge, the grid operator is required to pay so-called “avoided grid fees” due to the decentralized feed-in by the co-generation plant (“*Entgelt für dezentrale Einspeisung*”, Section 18 para 1 StromNEV). If no agreement is reached regarding the electricity price, the grid operator has to off-take the electricity at the “standard market price”. The “standard market price” for electricity produced by installations depends on their capacity. For installations with a capacity of up to 2 MWe the average price of base-load electricity is determined by the European Energy Exchange (EEX) during the previous quarter of the year or installations with a capacity of more than 2 MWe—like the CHP—the “standard market price” (depends on the circumstances in the individual case, especially the plant’s mode of operation and the predictability of electricity production).

If the co-generation plant operator demonstrates that a third party would be willing to pay a certain price for the electricity produced at the co-generation plant, the grid operator is obligated to purchase the electricity from the co-generation plant operator at this price. In turn, the third party is obliged to purchase the electricity at the price quoted from the grid operator. Thus, the sale of electricity to a third party is carried out through the grid operator as intermediary. The purchase price is actually paid by the third party and the grid operator only pays the surcharge. See “—Surcharge” below.

Surcharge

In addition to the purchase price and the “avoided grid fees”, grid operators are obligated to pay a legally determined surcharge to the co-generation plant operators, depending, inter alia, on the type of plant, the installed capacity and extent/costs of modernization and retrofitting measures. In contrast to the electricity price and the “avoided grid fee”, which the grid operator is only required to pay for the electricity actually fed into the grid, the surcharge must be paid for the entire amount of electricity produced in

co-generation. Depending on the type of the co-generation plant, the surcharge is payable for a certain maximum period of time. Plants with a capacity larger than 2 MWe receive the surcharge for a total of 30,000 hours of Full-Load equivalent (FLE).

The KWKG places a cap on the annual aggregate level of financial incentives paid as surcharge under the KWKG. If this threshold is exceeded, surcharges for a certain class of co-generation plants are reduced. Subject to the cap, this loss in surcharges is generally paid in the full amount in the course of the following years before payment of the regular surcharge for these co-generation plants is initiated again.

Amendments of the KWKG and Associated Developments

The KWKG was amended in recent time.

- The KWKG 2016, which entered into force on January 1, 2016, amended the previous scheme of funding co-generation, albeit maintaining the rules on grid access and compulsory off-taking of electricity produced in co-generation. For the newly determined expansion paths, the cap for the annual aggregate level of financial incentives was raised from €750 million to €1,500 million.
- On January 1, 2017, an amendment to the KWKG 2016 entered into force. Most importantly, a tendering system similar to the one under the revised EEG has been established for co-generation plants with an electric capacity of 1 to 50 megawatt as well as for innovative CHP systems. This mainly concerns combined heat and power plants (including the CHP), which feed into the general supply network. Furthermore, the scheme for the reduction of the so-called *KWK-Umlage* (a surcharge, which socializes the costs for the funding of CHP to the end consumers of electricity) for the electricity-intensive industries was adapted to the one in place for the so-called *EEG-Umlage*. For more information, see “*Risk Factors—Risks Related to our Industry and our Business—As a result of the CHP Acquisition, we are directly subject to a wide range of laws and regulations specifically governing the German energy sector and the disposal of waste, which are subject to constant change*”.
- The most recent amendment of the KWKG was introduced by the above-mentioned EnSaG, which entered into force by the end of 2018. With this act, among others, the funding of the construction and modernization of CHP installations was extended to 2025.

In addition to these KWKG reforms, the German legislator passed the NeMoG, which includes a revision of Section 18 StromNEV regarding “avoided grid tariffs”. In particular, a cap was placed on “avoided grid tariffs” to prevent the relevant tariffs from exceeding the 2016 level. Also it was stipulated to progressively cancel the “avoided grid tariffs” for existing respectively for new plants. For details, see “—*NeMoG*” above.

Carbon Emission Compliance

Germany is party to the Kyoto Protocol as well as to the Paris Agreement, and the Emission Trading Directive 2003/87/EC intends to considerably reduce the output of greenhouse gases. It was transformed into German law by implementing it into the German Greenhouse Gas Emission Trading Act (*Treibhausgas-Emissionshandelsgesetz*, “**TEHG**”). The TEHG introduces an emission trading system (“**ETS**”) for CO₂ emission allowances which are traded in certain trading periods, which requires certain energy and industry sectors to comply with the applicable greenhouse gas emissions caps. Overall, only a limited number of allowances—determined in advance for the trading period—are available to emission sources, subject to the emission trading system. Participation in this system has been mandatory since 2005 for all industries with high energy consumption levels, including the paper industry. The regulations of the TEHG state that sources under emission trading obligation are required to obtain approval to emit greenhouse gases, to comply with a cap of emission allowances allocated to them and to maintain a monitoring process to determine and to document their emissions. The legislation also provides for the possibility of trading (selling and buying) excess allowances in the open market and allows for offsets from Joint Implementation and Clean Development Mechanism projects as regulated by the German Project Mechanisms Act to be used in place of emission allowances to a certain extent, which is limited for existing installations to the quota granted for the second trading period (22% of the allocation for the second trading period), to the extent not yet used. Like our two paper mills, the CHP is subject to the ETS.

The overall availability of emission allowances allocated free of charge has been significantly reduced during the second trading period (2008 through 2012) and the third trading period that began in January 2013 compared to the amount of allowances allocated free of charge in the first trading period (2005 through 2007). Under the currently applicable ETS, the EU-wide quantity of emission allowances allocated

each year reduced by a linear factor of 1.74% annually as compared to the average annual total quantity of emission allowances issued in the EU between 2008 and 2012. To achieve the target of cutting EU emissions by 40% by 2030 compared to 1990, agreed by the European Council in October 2014 as part of the 2030 climate and energy framework, the cap will be lowered by 2.2% per year from 2021. In addition, from 2013 onwards, the auctioning of emission allowances has been and will continue to be introduced for the manufacturing sector. The quantities of emission allowances allocated free of charge will generally be reduced from 80% in 2013 to 30% in 2020. On March 14, 2018, the 2018 Directive (EU) 2018/410 amending the Emissions Trading Directive 2003/87/EC was adopted. According to the amended version of the Emissions Trading Directive, the free allocation of 30% will continue until 2025. Thereafter, the 30% of free allocation will subsequently be reduced to 0% until 2030, except for district heating. As a result, affected companies whose emissions exceed their emission allowances will have to purchase a significant, and steadily increasing, share of emission allowances in auctions, which may result in substantial additional cost for such companies.

An exemption from the general auctioning mechanism is available for certain energy-intensive industries which are exposed to a significant risk of relocation of plants to countries with less stringent climate protection laws (a phenomenon known as “Carbon Leakage”). Since 2010, the European Commission will determine every five years which industries are threatened by Carbon Leakage. The designated industries will be allocated emission allowances free of charge for the period determined amounting to 100%. Since the paper industry has been granted the relevant status, our two mills receive CO₂ emission certificates free of charge. On February 15, 2019, the European Commission adopted the Carbon Leakage List for the years 2021-2030. According to this list, the paper industry will continue to be considered threatened by Carbon Leakage for this upcoming period. A part of the Carbon Leakage industry sectors are allowed to apply for financial compensation for the increase of electricity costs due to EU ETS allowance costs passed on in electricity prices, among which is the paper and paperboard industry. The compensation is not enforceable and is granted from funds provided in the federal budget for that purpose for the relevant year.

For the fourth trading period (2021 to 2030), the Free Allocation Rules (FAR- (EU) 2019/331) have been adopted on December 19, 2018. Some details concerning the free allocation of certificates are still missing. For example, there are still no rules for adjusting the level of free allocations given to installations whose operations have increased or decreased, as assessed on the basis of a rolling average of two years, by more than 15% compared to the level initially used to determine the free allocation for the relevant period.

The product benchmarks, which determine the amount of allowances allocated free of charge, will decline by 0.2 to 1.6% per year, calculated from the year 2008, in order to account for expected emission reductions due to technological progress. Nevertheless, according to an impact assessment of the European Commission, the paper and paperboard sector can still expect an 80% free allocation. It should be noted that the aforementioned Carbon Leakage list has not entered into force yet. After all, a final assessment as to the consequences is not possible yet.

In February 2014, the Commission Regulation (EU) No 176/2014 entered into force postponing the auctioning of 900 million emission allowances from 2014 to 2016 to later in the third trading period.

By Decision (EU) 2015/1814 of October 6, 2015, the European Parliament and the European Council have established a market stability reserve for the Union greenhouse gas emission trading scheme. According to this Decision, the quantity of 900 million allowances deducted from auctioning volumes during the period 2014-2016 will not be added to the volumes to be auctioned in 2019 and 2020 but will instead be placed in the reserve. Also, Decision (EU) 2015/1814 stipulates that each year a number of allowances equal to 12% of the total number of allowances in circulation, as published by the European Commission, will be deducted from the volume of allowances to be auctioned and will be placed in the reserve over a period of 12 months beginning on September 1 of that year, unless the number of allowances to be placed in the reserve would be less than 100 million. In any year, if the total number of allowances in circulation is less than 400 million, 100 million allowances will be released from the reserve and added to the volume of allowances to be auctioned. Where fewer than 100 million allowances are in the reserve, all allowances in the reserve will be released. Considering the need to deliver a credible investment signal to reduce CO₂ emissions in a cost-efficient manner and with the aim of strengthening the EU ETS, Decision (EU) 2015/1814 was amended on March 14, 2018 by Directive (EU) 2018/410 so as to increase the percentage rates for determining the number of allowances to be placed each year in the reserve from 12% to 24% and the abovementioned threshold of 100 million allowances to 200 million allowances by

December 31, 2023. Furthermore, allowances held in the reserve above the total number of allowances auctioned during the respective previous year should no longer be valid from 2023.

Energy Tax Act (EnergieStG)/Electricity Tax Act (StromStG)

The EnergieStG contains provisions on the taxation of the consumption of energy products. These include coal and fuel oil, which are used in the thermal power plant. Pursuant to Section 53 EnergieStG, it is possible to apply for tax relief for energy products which are used in stationary generation installations with a nominal capacity exceeding 2 MWe and for which the applicable tax has been duly paid. Only the energy products that are directly involved in the energy conversion process taking place in the electricity generation unit are deemed to be “energy products used for the purpose of energy generation” within the meaning of EnergieStG. The party using energy products for the purpose of energy generation is the party eligible to obtain relief.

The StromStG provides for the taxation of consumed electricity. The tax rate is €20.50 per MWh pursuant to Section 3 StromStG. Anyone supplying electricity is principally deemed to be a supplier; exceptions are laid down in sec. 1a Ordinance implementing the StromStG (*Stromsteuerdurchführungsverordnung*, “**StromStV**”). Pursuant to Section 4 subs. 1 sentence 1 StromStG, anyone intending to supply electricity as a supplier requires a license granted upon application by the main customs office. The supplier is obliged to submit a tax return for all electricity for which tax has arisen. In the context of this tax return, the supplier itself must calculate the amount of tax to be paid and settle the amount due with the tax office. Electricity that is removed from the grid for the purpose of generating electricity is tax-exempt if a license for removing electricity for the purpose of generating electricity was granted prior to the removal. Manufacturing companies within the meaning of Section 2 no. 3 StromStG may obtain tax relief pursuant to sec. 9b StromStG in the amount of €5.13 per MWh (if the amount of the relief exceeds €250.00 per calendar year) and an electricity tax relief of up to 90% pursuant to Section 10 StromStG (if the tax to be paid in the calendar year exceeds €1,000.00). The party which has removed electricity for operating purposes is the party eligible to obtain relief.

In 2016, the Federal Ministry of Finance (*Bundesministerium der Finanzen*, “**BMF**”) published a draft amendment of the EnergieStG and the StromStG, which foresaw certain limitations and restrictions regarding the aforementioned tax releases, among others a prohibition to combine the tax releases with other State aids (so-called cumulation). The draft has been heavily criticized by the BMWi and has therefore been revised by the BMF. It no longer included the problematic provision on the prohibition of cumulation. On January 1, 2018, the new EnergieStG and the StromStG entered into force without the controversial alteration. As a result, the amendments to the StromStV and the EnergieStV have been published on January 8, 2018 with retroactive effect from January 1, 2018. Key adjustments to the legal framework include—*inter alia*—provisions on the scope and conditions for the granting of subsidies to companies in difficulty (*Unternehmen in Schwierigkeiten*, “**UIS**”), exceptions in the definition of suppliers, the regulation for a simplified application and authorization procedure for battery storage and the specification of the definition of “electromobility”.

Energy Services Act (EDLG)

Pursuant to the EDLG, companies that do not constitute micro, small or medium-sized enterprises within the meaning of Commission Recommendation 2003/361/EC of May 6, 2003 (Official Journal L 124 of 20/05/2003, page 36) are obliged to carry out an energy audit by December 5, 2015. This obligation does not apply to companies which, by December 5, 2015, have implemented an energy management system in line with the requirements of DIN EN ISO 50 001 (December 2011 edition) or an environmental management system (EnMS). The CHP has implemented an EnMS and is certified under the Eco-Management and Audit Scheme (“**EMAS**”), a voluntary scheme set up by the European Union that is designed to help companies to continuously improve their environmental performance, but the requirements of the EDLG also apply to current members of the Group. For a description of the EMAS certification of Progroup Paper PM2 GmbH and the EnMS we have implemented at our two paper mills as well as EnMS we have implemented (or plan to implement) at some of our corrugated board production sites, see also “—Sustainability Focus; Research and Development”. The Issuer as well as certain of its subsidiaries will still be required to carry out an energy audit under the EDLG.

Electricity Grid Access Ordinance (StromNZV)

The StromNZV governs the conditions for the feed-in and removal of electricity. Therefore, these requirements are also relevant and have to be taken into account with particular regard to the power plant's removal of electricity from the grid.

While the StromNZV (along with the EnWG) contains general legal provisions on the feed-in and removal of electricity, specific technical requirements are described in technical standards, which are developed by technical bodies such as the *Verband der Elektrotechnik, Elektronik und Informationstechnik* ("VDE"). In 2018, the VDE published new technical standards (*Anwendungsregeln*), which contain the recognized engineering standards for the grid access of, among others, generation units. According to a transitional regulation introduced with the above-mentioned EnSaG, those rules are applicable for generation units with an electric capacity of 0.8 kW and above, for which a grid access request is submitted to the grid operator or for which an approval according to BImSchG has been granted after April 27, 2019. They also apply if existing generation units are significantly changed. Depending on the individual case, new extensive certification obligations have to be fulfilled. However, an exemption applies to generation units, for which a grid access request was launched or a BImSchG approval had been issued by April 27, 2019, if they are put into operation by June 30, 2020.

Environmental laws and other related laws and regulations

Like the operation of our two paper mills, the operation of the CHP requires active permits under the BImSchG, it triggers the various duties and potential liability under the Federal Water Management Act (WHG), the Federal Waste Management Act (KrWG) and the Federal Soil Protection Act (BBodSchG), and it is subject to the rules for the protection of nature and landscape, as well as flora and fauna, that are codified in the Federal Nature Conservation Act (*Bundesnaturschutzgesetz*, "**BNatSchG**") and the State Nature Conservation Acts (*Landesnaturschutzgesetz*) in the Federal State of Brandenburg. For more details, please also see "*—Regulatory Environment—Environmental Laws*" and "*—Regulatory Environment—Soil Contamination*" above.

The technological standards applicable in relation to the requirements under the BImSchG are substantiated by technical regulations as determined in ordinances based on the BImSchG or technical regulations, as amended from time to time. For the CHP, the 13th Ordinance (Ordinance on Large Combustion Plants, Gas Turbine Plants and Internal Combustion Engines) and the 17th Ordinance (Ordinance on the Incineration and Co-Incineration of Waste) to the BImSchG are of particular importance, the latter one particularly with regard to the co-incineration of sewage sludge. The legal framework for the utilization/disposal of sewage sludge is currently being revised with the aim of a better recovery of phosphates, which may lead to a declining use of sewage sludge in incineration plants.

The compliance with emission limits, which are stipulated in the permit for the CHP, will be controlled regularly and, if necessary, can be altered subsequently by the authorities. The competent authority may withdraw the permit if the CHP does not comply with the applicable emission limits as determined in the permit.

The BImSchG also specifies the obligations of certain installation operators to notify the competent authorities of operational disruptions and to implement a monitoring following such disruptions. Operators of industry emissions installations have to provide annual reports of their emissions monitoring to the competent authorities and there are environmental inspections on a regular basis for such installations.

The Technical Instructions on Air Quality Control (*Technische Anleitung Luft*—"TA Luft"), which have to be followed by any installation falling under the BImSchG (such as power plants), are under revision. However, in May 2017 the revision of the TA Luft was postponed by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (*Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit*, "**BMUB**") for an undefined time. Once the revision will have proceeded, the emission limit values for fine dust will, among other potential changes, likely be tightened and certain adaptations will also likely be implemented with regard to the Best Available Technology (*Beste Verfügbare Technik*, "**BVT**") reference documents.

LEGAL PROCEEDINGS

From time to time, we are involved in administrative, legal and arbitration proceedings that arise in the ordinary course of business. Neither we nor any of our subsidiaries are currently involved in any litigation, administrative proceedings or arbitration relating to claims or amounts that are material to our business and, to our knowledge, no such litigation, administrative proceeding or arbitration is pending or threatened. The outcome of legal proceedings, however, are difficult to predict with any certainty and we can offer no assurances in this regard.

SHAREHOLDERS

91.05% of the registered share capital of the Issuer are being held by JH-Holding, a holding company controlled by our chief executive officer, Jürgen Heindl. The remaining 8.95% of the registered share capital of the Issuer are being held by two minority shareholders who are not involved in the management of our business. Pursuant to a shareholders' agreement, the two minority shareholders have the right to jointly designate a member of our Supervisory Board. However, this right is currently suspended until October 2022. As a result, the two minority shareholders are currently not able to influence the composition of the Supervisory Board.

The shareholders of JH-Holding, which has a share capital of €1,000,000, are Jürgen Heindl, who holds 52.0% of JH-Holding's shares (including two shares in a nominal amount of €1,000, which together provide Mr. Heindl with a qualified majority of 75% of the voting rights in the shareholders' meeting of JH-Holding), and his two sons, Maximilian Heindl and Vinzenz Heindl, who each hold 24.0% of JH-Holding's shares.

MANAGEMENT

OVERVIEW

In accordance with the German Stock Corporation Act (*Aktiengesetz*), the Issuer has a two-tier board system consisting of an Executive Board (*Vorstand*) and a Supervisory Board (*Aufsichtsrat*). The two boards are separate, and, subject to a limited exception, no individual may serve concurrently as a member of both boards.

The Executive Board is responsible for managing our day-to-day business in accordance with applicable German law and the Articles of Association (*Satzung*) as well as its rules of procedure (*Geschäftsordnung*). In addition, the Executive Board must ensure appropriate control of risk within the Issuer and its subsidiaries in order that any developments jeopardizing the Issuer's future as a going concern may be identified at an early stage. The Executive Board legally represents the Issuer in dealings with third parties and in court.

The Supervisory Board advises the Executive Board on the management of the Issuer, monitors its conduct of business and is responsible for appointing and dismissing the members of the Executive Board for good cause. It also represents the Issuer in transactions between a member of the Executive Board and the Issuer. While the Executive Board is responsible for submitting regular reports on our business activities and fundamental issues relating to corporate planning (including financial, investment and personnel planning) to the Supervisory Board, the Supervisory Board has the right to request special reports at any time from the Executive Board. The Executive Board is also obliged to duly report to the Supervisory Board such transactions as may be of considerable importance to the Issuer's profitability (in particular the return on equity) or liquidity, so that the Supervisory Board may have an opportunity to express its opinion on such transactions before they are concluded. The Supervisory Board may also request a report at any time on matters concerning the Issuer, on the legal and commercial relationships with affiliated companies or on commercial operations at these companies that may have a significant impact on the Issuer and its subsidiaries.

The Supervisory Board generally may not exercise management functions. The rules of procedure of the Executive Board, however, require that certain types of transactions may not be carried out by the Executive Board without the prior consent of the Supervisory Board. If the Supervisory Board refuses to approve a certain transaction or business activity contemplated by the Executive Board, the Executive Board can request that the general shareholders' meeting decide on the matter. However, the general shareholders' meeting of a German stock corporation may not issue directives to the Executive Board.

The members of the Executive Board and the Supervisory Board owe duties of loyalty and care *vis-à-vis* the Issuer. In discharging their duties, the members of these corporate bodies must consider a broad range of interests, including our interests, which in turn include the interests of our shareholders, employees, creditors and, to a certain extent, the general public. The Executive Board must also take due account of the shareholders' right to equal treatment and equal information. The members of the Executive Board or of the Supervisory Board are jointly and severally liable to the Issuer for any damages that may arise if they fail to discharge their duties.

As a basic principle under German law, a shareholder has no direct recourse against the members of the Executive Board or the Supervisory Board in the event that they breach a duty *vis-à-vis* the Issuer. Except for certain special circumstances, only the Issuer itself has the right to bring claims for damages against members of either board, whereby the Issuer is represented by the Executive Board when bringing claims against the Supervisory Board and by the Supervisory Board when bringing claims against the Executive Board. Pursuant to a ruling by the German Federal Court of Justice (*Bundesgerichtshof*), the Supervisory Board is obliged to bring claims which are likely to be successful against the Executive Board unless material considerations pertaining to the interest of the corporation outweigh or are at least equivalent to those in favor of enforcing such claim. Despite a refusal of the Supervisory Board to pursue a claim for damages, such a claim must be enforced (i) upon a resolution of the general shareholders' meeting, (ii) upon a petition with the competent court by minority shareholders meeting a certain minimum requirement as to their stake in the Issuer, or (iii) by the Issuer's creditors whose claims could not be settled by the Issuer. The Issuer may only waive or settle such claims for damages if at least three years have passed and if the shareholders approve the waiver or settlement at the general shareholders' meeting with a simple majority of the votes cast, provided that opposing shareholders do not hold, in the aggregate, one tenth or more of the share capital and do not have their opposition formally recorded in the minutes of the shareholders' meeting.

Under German law, no individual shareholder (or any other person) may exert its influence on the Issuer to cause a member of the Executive Board or the Supervisory Board to engage in any act detrimental to the Issuer. Shareholders with a controlling interest may not use it to cause the Issuer to act against its own interest unless the prejudice to its interests is compensated for. Any shareholder using its interest in the Issuer to cause a member of the Executive Board, a member of the Supervisory Board or a person who holds a power of attorney (*Prokurist*) or is authorized to act for the Issuer (*Handlungsbevollmächtigter*) to engage in any act detrimental to the Issuer or to our shareholders must compensate the Issuer and the shareholders for any loss sustained thereby. In addition, the members of the Executive Board and the members of the Supervisory Board are jointly and severally liable if they act in breach of their obligations.

Progroup AG provides for a directors and officers liability insurance policy for all members of the Executive Board and the Supervisory Board and for certain other managers with leadership responsibilities within Progroup AG and its subsidiaries.

Executive Board

General Information

The Executive Board is responsible for managing the business of the Issuer in accordance with the German Stock Corporation Act, the Issuer's Articles of Association and the rules of procedure (*Geschäftsordnung*) for the Executive Board. The Executive Board also represents the Issuer in its dealings with third parties and in court. According to the Articles of Association and the provisions of the German Stock Corporation Act, the Executive Board must consist of a minimum of one member. The Supervisory Board determines the number of members of the Executive Board and appoints such members. It may also appoint the Chairman and Deputy Chairman of the Executive Board. Members of the Executive Board are appointed for a maximum term of five years. They may be repeatedly reappointed or their term of office may be extended, in each instance for a period of up to five years. The Supervisory Board may revoke the appointment of a member of the Executive Board before the end of his or her term of office for good cause, such as gross breach of duty or in case of a vote of no confidence by the general shareholders' meeting.

The Executive Board has overall responsibility for the Issuer's business. In accordance with its allocation-of-responsibilities plan (*Geschäftsverteilungsplan*), each member of the Executive Board is assigned an area of responsibility defined in such plan, which sets out the allocation of responsibilities. Notwithstanding the overall responsibility held by the Executive Board, each member of the Executive Board is responsible for the area allocated to him or her. Pursuant to the rules of procedure (*Geschäftsordnung*) for the Executive Board, certain management actions may only be taken, and certain types of transactions may only be concluded, with the approval of the Supervisory Board. As a rule, the Executive Board should meet every week. The Executive Board has a quorum if a meeting has been called with due notice and all or, in the event that the Executive Board has more than two members, at least half of the members which must include the Chairman are present. If not otherwise required by law, the Executive Board decides by a simple majority of the votes cast. In the event of a tie, the Chairman has the deciding vote. Members of the Executive Board may not deal with, or vote on, measures relating to proposals, arrangements or contracts between him/herself and the Issuer.

Individual board members serve as representatives with primary responsibility for the Issuer's various corporate functions and for the fields of business in which the Issuer operates. Despite this internal allocation of responsibilities, each member of the Executive Board has overall responsibility (*Gesamtverantwortung*) for the Issuer as a whole.

The Issuer's Articles of Association provide that the Issuer can be legally represented by two members of the Executive Board or by one member of the Executive Board in conjunction with an authorized signatory who holds a power of attorney (*Prokurist*). The Supervisory Board has granted the Chairman, Mr. Jürgen Heindl, authorization to solely represent the Issuer in accordance with the Articles of Association.

The Supervisory Board may appoint deputy members of the Executive Board who, in accordance with the German Stock Corporation Act, have the same rights and responsibilities as the regular members of the Executive Board.

Members of the Executive Board

The following table sets forth the current members of the Issuer's Executive Board.

<u>Name</u>	<u>Age</u>	<u>Member since</u>	<u>Appointed until</u>	<u>Responsibility</u>	<u>Other principal positions</u>
Jürgen Heindl	64	2007	August 28, 2022	Chief Executive Officer	Progroup Paper PM1 GmbH Progroup Paper PM2 GmbH Progroup Paper PM3 GmbH Progroup Power 2 GmbH Progroup Board GmbH Progroup Board S.A.S. Progroup Board s.r.o. Progroup Board sp. z o.o. Progroup Board Ltd. Progroup Board S.r.l. Progroup Board Kft. Prowell Verwaltungs GmbH JH-Holding GmbH
Dr. Volker Metz	44	2016	October 31, 2021	Chief Financial Officer	Progroup Paper PM1 GmbH Progroup Paper PM2 GmbH Progroup Paper PM3 GmbH Progroup Power 2 GmbH Progroup Board GmbH Progroup Board S.A.S. Progroup Board s.r.o. Progroup Board sp. z o.o. Progroup Board Ltd. Progroup Board S.r.l. Progroup Board Kft. Prowell Verwaltungs GmbH
Philipp Kosloh	45	2016	October 31, 2021	Chief Operating Officer	Progroup Paper PM1 GmbH Progroup Paper PM2 GmbH Progroup Paper PM3 GmbH Progroup Power 2 GmbH Progroup Board GmbH Progroup Board S.A.S. Progroup Board s.r.o. Progroup Board sp. z o.o. Progroup Board Ltd. Progroup Board S.r.l. Progroup Board Kft.
Maximilian Heindl	35	2017	July 31, 2022	Chief Development Officer	Progroup Paper PM1 GmbH Progroup Paper PM2 GmbH Progroup Paper PM3 GmbH Progroup Power 2 GmbH Progroup Board GmbH Progroup Board S.A.S. Progroup Board s.r.o. Progroup Board sp. z o.o. Progroup Board Ltd. Progroup Board S.r.l. Progroup Board Kft.

The business address of each member of the Executive Board is Progroup AG, Horstring 12, 76829 Landau, Germany.

Jürgen Heindl. Mr. Heindl studied electrical engineering at the University of Applied Science Dieburg and business engineering at the University of Applied Science Esslingen. He began his career in 1980 at

Zewawell GmbH & Co. KG, as assistant of the general management. From 1982 to 1987, he was plant manager conducting a restructuring program and from 1987 to 1991 he was division manager and member of the board of Zewawell GmbH & Co. KG. In 1991, Mr. Heindl founded PROWELL Papierverarbeitung GmbH, predecessor of today's Progroup AG, and from 1991 to 2007, he was active as sole managing director of PROWELL Papierverarbeitung GmbH. Since establishing Progroup AG in 2007, Mr. Heindl has been a member of the Executive Board. Since 2008, he has served as Chairman of the Executive Board. In 2017, the Supervisory Board extended the appointment of Mr. Heindl for another period of five years until August 28, 2022.

Dr. Volker Metz. Dr. Metz studied business economics at the university of Mannheim, where he obtained his Ph.D. in 2006, and at the university of Wales. He started his professional career in 2001 as consultant at Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft in Mannheim, where he was soon promoted to become project manager in the transaction advisory services department in 2005. From 2007 to 2009 he worked for EnBW Energie Baden-Württemberg AG, Karlsruhe, as senior manager controlling networks. From 2009 to 2016 Dr. Metz was active as head of controlling of Progroup AG. At the beginning of 2016 he opted for a career opportunity to become commercial division manager of GGEW, Gruppen-Gas- und Elektrizitätswerk Bergstraße Aktiengesellschaft, Bensheim. As of November 1, 2016, Dr. Metz returned to Progroup AG and was appointed as member of the Executive Board of Progroup AG and chief financial officer of the Group for a period of five years.

Philipp Kosloh. After completion of an apprenticeship as packaging mechanic Mr. Kosloh studied packaging engineering at the technical college of Berlin, followed by an MBA course at the Southbank University Business School, London. He began his professional career as production engineer at Kellogg's Company of Great Britain Limited, Manchester, in 1999. From 1998 to 2000 he was employed as consultant at Berndt & Partner GmbH, Berlin. From 2001 to 2009 Mr. Kosloh was member of the extended management board of Progroup AG and Progroup AG's predecessor PROWELL Papierverarbeitung GmbH and managing director of the logistics subsidiary Prologistik GmbH. In 2009 he had opted for a career opportunity with Progroup AG's competitor Smurfit Kappa where he was general manager for the region southwest Germany with three integrated corrugated board production sites. As of November 1, 2016, Mr. Kosloh returned to Progroup AG and was appointed as deputy member of the Executive Board of Progroup AG for a period of five years, with a view to becoming our first chief operating officer. Effective January 1, 2019, Mr. Kosloh became a regular member of the Executive Board and assumed the role of chief operating officer.

Maximilian Heindl. Mr. Maximilian Heindl studied industrial engineering at the Karlsruher Institute for Technology (KIT) in Karlsruhe. After completion of apprenticeships with Visy Industries Australia Pty Ltd and EnBW Operations GmbH he started his professional career as international trainee at Voith Papier Holding GmbH & Co. KG in 2012. He became assistant to the President of the Business Line P&S at Voith Papier GmbH & Co. KG in 2014, where he was further promoted to become director of production P&S EMEA in 2015. Picking up the family track, Mr. Maximilian Heindl resumed an appointment as head of Progroup's paper division in 2016 and, since 2017, he also serves as deputy member of Progroup AG's Executive Board. Effective January 1, 2019, Mr. Maximilian Heindl became a regular member of the Executive Board and assumed the role of chief development officer.

Compensation

The members of the Executive Board do not receive any separate remuneration other than their respective remuneration as members of the Executive Board. The remuneration of the members of the Executive Board consists of a fixed component and variable compensation elements. The fixed component comprises a base salary and payments in kind. The variable components include annually recurring components tied to business performance and, except for Mr. Jürgen Heindl, the achievement of certain targets. Further, our chief executive officer, Mr. Jürgen Heindl, is entitled to special bonus payments upon the completion and successful commissioning of new plants by the Issuer or any of its subsidiaries. The base salaries are paid in twelve equal monthly installments. The payments in kind consist mainly of the use of company vehicles and certain insurance contributions, including contributions to health insurance, whole life insurance, disability insurance and term life insurance, as well as pension contributions. The Issuer has also granted a pension commitment (*Versorgungszusage*) to our chief executive officer, Mr. Jürgen Heindl, comprising a retirement pension as well as a disability pension and a widow's and orphan's pension.

The total compensation of the members of the Executive Board amounted to €8.2 million in 2018. These amounts included fixed salaries, payments in kind and variable performance and target related

compensations. The payments in kind included the use of company cars and premiums for health, accident and life insurance.

The Issuer has obtained D&O insurance covering, amongst others, the members of the Executive Board.

Supervisory Board

Overview

The Supervisory Board currently consists of three members, which are elected by the Issuer's shareholders at the general shareholders' meeting by a simple majority of the votes cast.

The Supervisory Board members elect one of the members as Chairman (*Vorsitzender*) and another one as Vice-Chairman (*Stellvertreter*) by a simple majority of the votes cast.

Unless the general shareholder's meeting elects the member for a shorter period, the term of a member of the Supervisory Board elected by the shareholders expires at the end of the fifth general shareholders' meeting following the general shareholders' meeting in which the member was elected. If a member of the Supervisory Board retires, or is removed from office prior to the end of its term of office, the substitute member's term of office expires at the end of the term of the resigning or removed board member, unless the general shareholders' meeting decides otherwise. There is no compulsory retirement age for the members of the Supervisory Board. No former Executive Board members of Progroup AG are currently serving on the Supervisory Board.

Unless otherwise required by applicable law, resolutions of the Supervisory Board are passed by a simple majority of the votes cast. In order to constitute a quorum, all members must be invited with due notice and all members of the Supervisory Board must participate in the voting.

The Supervisory Board is required to meet at least twice in each half of every calendar year.

Members of the Supervisory Board

The following table sets forth the name, age, year of appointment, end of current term and the other principal positions of each of the current members of the Issuer's Supervisory Board.

Name	Age	Member since	Appointed until	Other principal positions
Rainer Dietmann (Chairman)	62	2007	2022	Chairman of the supervisory board of Global Vermögensberatung AG, Wiesbaden Member of the supervisory board of SSP Deutschland GmbH, Eschborn Chairman of the foundation board of Heinrich-Vetter-Stiftung, Ilvesheim
Prof. Dr. Rudolf Wimmer (Vice Chairman)	73	2008	2022	Vice-Chairman of the supervisory board of PBS-Holding AG, Wels/Austria Chairman of the advisory board of Diagramm Halbach GmbH & Co. KG, Schwerte Member of the advisory board of Karl Wörwag Lack- und Farbenfabrik GmbH & Co.KG, Stuttgart Member of the supervisory board of Hermes Europe GmbH, Hamburg
Christian Buchel	56	2019	2022	Member of the board, Director for Customers, Markets, Territories and Europe of Enedis, Paris Chairman of EDSO for Smart Grids Brussels

Prof. Dr. Hermut Kormann resigned as a member of the Supervisory Board on January 24, 2019 for reasons of age and was replaced by Mr. Christian Buchel (until 2022).

The business address of each member of the Supervisory Board is Progroup AG, Horstring 12, 76829 Landau, Germany.

Rainer Dietmann. Mr. Dietmann studied law at the University of Mannheim and the London School of Economics. He began his career as attorney-at-law in Munich in 1985. In 1986, he joined Rittershaus Wissmann & von Rosenstiel, predecessor of today's Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, where he became partner in 1988.

Prof. Dr. Rudolf Wimmer. Prof. Dr. Wimmer studied law and political science at the university of Wien. From 1970 to 1975, he was active as assistant professor at the Institute for Constitutional and Administrative Law at the University of Wien. In the years 1975 to 1977 he enjoyed a research grant at the University of Klagenfurt. Since 1977, Prof. Dr. Wimmer is active as an independent trainer and advisor for organizational development. In 1990, Prof. Dr. Wimmer wrote his professional thesis on group dynamics and organization at the University of Klagenfurt. In 1999, he assumed the professorship for management and organization at the newly established Institute for Family-Owned Enterprises at the University of Witten/Herdecke.

Christian Buchel. Mr. Christian Buchel holds an engineering degree from Ecole Supérieure d'Electricité (Supélec, Paris) and was a research fellow at CERN, Geneva. During his early career, he held both managerial and operational responsibilities, covering the entire value chain of the electricity industry. After serving as an advisor to EDF's CEO in the late 1990s, he held various top-management positions within the EDF Group. He was notably a Member of the Board and COO of Energie Baden-Württemberg (EnBW) in Germany as well as CEO of Electricité de Strasbourg. As Chief Digital Officer of Enedis he managed the digital and big data transformation of the company during three years. Today, Mr. Christian Buchel is a Member of the Board of Enedis, the distribution system operator in charge of operating, developing and maintaining the medium-voltage and low-voltage power grids across 95% of mainland France. Since May 2018, he has been Director for Customer, Markets, Territories and Europe of Enedis. He is also Chairman of EDSO for Smart grids.

Supervisory Board Committees

The Supervisory Board has not formed any committees.

Compensation

Pursuant to a resolution of the Issuer's shareholders' meeting adopted on November 23, 2017 in accordance with the Articles of Association, members of the Supervisory Board receive a fixed annual compensation in the amount of €24,000, while the Chairman receives a fixed annual compensation in the amount of €60,000 and the vice chairman receives a fixed annual compensation in the amount of €35,000. In addition, the Issuer reimburses the members of the Supervisory Board for their out-of-pocket expenses incurred in the performance of their duties as Supervisory Board members.

The Issuer has obtained D&O insurance covering, amongst others, the members of the Supervisory Board.

Further Information about Members of the Executive Board and the Supervisory Board

During the last five years, no member of the Executive Board or the Supervisory Board has been convicted in relation to fraudulent offenses.

During the last five years, no member of the Executive Board or the Supervisory Board has acted in any capacity at any entity which was subject to any bankruptcies, receiverships or involuntary liquidations.

No official public incrimination and/or sanctions by any statutory or regulatory authority against any member of the Executive Board or the Supervisory Board has occurred. No member of the Executive Board or the Supervisory Board has ever been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of an issuer or from acting in the management or conduct the affairs of any issuer during the last five years.

Progroup has not granted any loans to Executive Board or Supervisory Board members. The members of the two corporate bodies have not concluded any transactions with the Issuer that lie outside the Issuer's normal operating activities.

No members of the Executive Board or the Supervisory Board have any conflicts of interest between their duties to the Issuer and their private or other interests. Rainer Dietmann, however, is partner of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB who provides legal services to the Issuer and

other members of the Group. For information on this relationship, see “*Certain Relationships and Related Party Transactions*”.

No Executive Board or Supervisory Board member has concluded any service contract with any of the Group’s companies that includes special benefits upon the end of the service. No family relationships exist among the members of the Executive Board and the Supervisory Board or within any of these bodies except between Mr. Jürgen Heindl, Chairman of the Executive Board, and his son Mr. Maximilian Heindl, member of the Executive Board. Further, except for Mr. Jürgen Heindl and Mr. Maximilian Heindl who indirectly hold, together with members of their immediate family, 91.05% of the registered share capital of Progroup AG via their private holding company, JH-Holding, no member of the Executive Board and the Supervisory Board (including persons closely related to them) currently holds shares in the Issuer. See also “*Shareholders*”.

The Issuer provides management services to JH-Holding, and the D&O insurance of JH-Holding also provides for coverage of the management of the Issuer. For information on this relationship, see “*Certain Relationships and Related Party Transactions*”.

General Shareholders’ Meetings

Pursuant to the Articles of Association, general shareholders’ meetings are convened by the Executive Board or, in certain instances, by the Supervisory Board. Depending on the choice of the convening body, general shareholders’ meetings take place at the Issuer’s registered office, a German city with more than 100,000 inhabitants or the registered office of an affiliated company (*verbundenes Unternehmen*) within the meaning of Article 15 of the German Stock Corporation Code (*Aktiengesetz*). Each of the shares of the Issuer carries one vote at the Issuer’s general shareholders’ meeting. There are no restrictions on voting rights of the shares of the Issuer.

Unless mandatory provisions of the German Stock Corporation Act or the Articles of Association state otherwise, general shareholders’ meeting resolutions are passed with a simple majority of the votes cast. In accordance with the German Stock Corporation Act, resolutions of fundamental importance require, in addition to a simple majority of the votes cast, a majority of at least three quarters of the share capital represented in order to pass such a resolution. Such resolutions of fundamental importance include in particular:

- changes in the Articles of Association;
- share capital increases;
- share capital decreases;
- the creation of authorized or contingent capital;
- divisions or split-offs as well as transfers of the entire assets of the Issuer;
- conclusions of inter-company agreements (in particular, domination agreements and profit and loss transfer agreements);
- changes in the legal form of the Issuer; and
- liquidation of the Issuer.

The general shareholders’ meeting can be convened at the request of the Executive Board, the Supervisory Board, or shareholders whose shares together total at least 5% of the share capital. If the best interests of the Issuer require it, the Supervisory Board must call a general shareholders’ meeting. The regular general shareholders’ meeting takes place within the first eight months of every financial year.

Neither German law nor the Articles of Association restrict the right to own shares or to exercise the associated voting rights for German non-residents or for foreign owners of shares.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Provision of Share Pledges by JH-Holding GmbH and our Minority Shareholders

On February 26, 2018, the Issuer entered into three agreements with JH-Holding and its two minority shareholders. The agreements provide for JH-Holding and the two minority shareholders to continue to grant security over their shares in the Issuer to secure our obligations under the Super Senior Revolving Credit Facility, the Existing Senior Secured PLN Facilities, the Existing Senior Secured IKB Facilities, the Existing Senior Secured GBP Facility, the Floating Rate Notes and the Existing Notes. On March 8, 2018, we made €19.3 million in lump sum fee payments to JH-Holding and our minority shareholders under the agreements.

Management Services Agreement with JH-Holding

The Issuer provides management services to its shareholder JH-Holding comprising, in particular, accounting services and assistance in the preparation of financial statements and reporting, pursuant to an agreement dated July 22, 2015, and receives remuneration for the provision of such management services, which, in 2018, amounted to €25,098. Furthermore, the D&O insurance for the Issuer's management is paid by JH-Holding, which is reimbursed by the Issuer for the premiums related to such D&O insurance. These transactions between the Issuer and JH-Holding are carried out at arm's length.

Legal services rendered by Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB

The law firm Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, Mannheim, Frankfurt/Main, Munich, has been providing legal advice to Progroup AG and other members of the Group on various matters for a number of years. Rainer Dietmann, who serves as chairman of the Supervisory Board of Progroup AG, is also a partner of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB. The retention of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB as the Group's legal counsel has been approved by the Supervisory Board of Progroup AG in accordance with the applicable provisions of the German Stock Corporation Act.

Services rendered by HHC UG

From time to time Progroup AG or other companies of the Group engage HHC GmbH, a limited liability company under German law solely owned and managed by Mrs. Herta Heindl, the spouse of Mr. Jürgen Heindl, to render certain services for individually specified projects. The conditions of such engagements include an hourly fee of €110 (net) and have been approved by the Supervisory Board of Progroup AG. The total remuneration, including costs to be reimbursed, billed to Progroup AG and other companies of the Group in 2018 amounted to €130,913.

DESCRIPTION OF CERTAIN FINANCING ARRANGEMENTS

The following summary of certain provisions of the documents listed below governing certain of our indebtedness does not purport to be complete and is subject to, and qualified in its entirety by reference to, the underlying documents. Unless otherwise defined in this offering memorandum or unless the context otherwise requires, terms defined in the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the New Senior Secured Facilities and the Intercreditor Agreement shall have the same meanings when used in this section.

OVERVIEW

On April 23, 2015, the Issuer and the Guarantors (other than Progroup Power 1 GmbH and Progroup Paper PM3 GmbH) entered into the Super Senior Revolving Credit Facility which provides for up to €50.0 million of committed credit that may be drawn by certain members of the Group specified therein from time to time. The obligations of the borrowers under the Super Senior Revolving Credit Facility (and certain Hedging Obligations and Cash Management Liabilities) are guaranteed on a senior basis by the Issuer and the Guarantors and are secured by the same Collateral that secures the Existing Notes and the Existing Senior Secured Facilities (as defined below) and that will secure all obligations under the New Senior Secured Facilities (as defined below) and, upon issuance of the Additional Notes, the Additional Notes, on a super priority basis pursuant to the terms of the Intercreditor Agreement. On December 21, 2017, among other things, the Issuer and the Guarantors entered into an amendment and restatement agreement relating to the Super Senior Revolving Credit Facility. Among other amendments, the Super Senior Revolving Credit Facility was amended to include an uncommitted “accordion feature” which will give us the option to increase the total commitments under the Super Senior Revolving Credit Facility from currently €50,000,000 to up to €80,000,000.

On December 1, 2015, Progroup Board sp. z o.o., as borrower, the Issuer and the then-existing Guarantors, as guarantors, entered into the 2015 Senior Secured PLN Facility which provided for PLN 107 million of committed credit. In addition, on May 31, 2016, Progroup Board sp. z o.o., as borrower, the Issuer and the Guarantors, as guarantors, entered into the 2016 Senior Secured PLN Facility to fund the establishment of our corrugated board production site (PW10) in Trzcinica, Poland. As of March 31, 2019, PLN 58.9 million (carrying amount at March 31, 2019: €13.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on March 31, 2019) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 76.0 million (carrying amount at March 31, 2019: €17.7 million, calculated based on an exchange rate of €1.00 = PLN 4.3006) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this offering memorandum, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility.

On December 21, 2017, the Issuer and the Guarantors entered into the Existing Senior Secured IKB Facilities and the Existing Senior Secured GBP Facility. The Existing Senior Secured IKB Facilities originally provided for a €8.5 million Facility A and a €30.0 million Facility B, both refinanced by KfW, which we have fully utilized. However, as of December 31, 2018, the amount repayable under Facility A was reduced to €7.155 million as a result of a €1.345 million repayment grant. The GBP70.0 million Existing Senior Secured GBP Facility was also fully utilized as of the date of this offering memorandum.

On July 13, 2018, to fund a portion of the expected investment into the establishment of our new paper mill (PM3) in Sandersdorf-Brehna, Germany, the Issuer and the Guarantors entered into (i) an amendment and restatement of the Existing Senior Secured IKB Facilities, adding an additional €25.0 million Facility C, refinanced by KfW, which may be utilized by Progroup Paper PM3 GmbH until August 10, 2019, (ii) the €25.0 million Existing Senior Secured SaarLB Facility, refinanced by KfW, which may be utilized by Progroup Paper PM3 GmbH until August 10, 2019 and (iii) the €75.0 million Existing Senior Secured Commerzbank Facilities, which consist of a €45.0 million Facility A, refinanced by KfW, which may be utilized by Progroup Paper PM3 GmbH until August 10, 2019, and two separate €15.0 million facilities (Facility B and Facility C), financed by Commerzbank itself, which are fully utilized as of the date of this offering memorandum. The €25.0 million Facility C under the Existing Senior Secured IKB Facility, the €25.0 million Existing Senior Secured SaarLB Facility and the €45.0 million Facility A under the Existing Senior Secured Commerzbank Facilities remain undrawn as of the date of this offering memorandum, but we expect to fully draw all such facilities by August 10, 2019. On August 6, 2018, to further secure the overall funding of our investment into our proposed new paper mill (PM3), the Issuer

and the Guarantors further entered into the €30.0 million Existing Senior Secured HSBC Facility, which may be utilized by Progroup Paper PM3 GmbH until one month before December 31, 2023. The Existing Senior Secured HSBC Facility remains undrawn as of the date of this offering memorandum. We refer to the Existing Senior Secured PLN Facilities, the Existing Senior Secured IKB Facilities, the Existing Senior Secured GBP Facility, the Existing Senior Secured SaarLB Facility, the Existing Senior Secured Commerzbank Facilities and the Existing Senior Secured HSBC Facility collectively as “**Existing Senior Secured Facilities**”.

On May 31, 2019, the Issuer and the Guarantors finally entered into the €30.0 million New Senior Secured Erste Bank Facility, the €30.0 million New Senior Secured LBBW Facilities and the €15.0 million New Senior Secured SaarLB Facility (together the “**New Senior Secured Facilities**”, and the New Senior Secured Facilities together with the Existing Senior Secured Facilities, the “**Senior Secured Facilities**”), primarily to fund the approximately €70-75 million of expected total investment into our proposed new corrugated board “mega plant” (PW14). The utilization of the New Senior Secured Facilities is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the Additional Notes. As a result, the New Senior Secured Facilities will remain undrawn on the issue date of the Additional Notes. We may utilize the New Senior Secured Erste Bank Facility, the New Senior Secured LBBW Facilities and the new Senior Secured SaarLB Facility until June, 2021, May, 2020 and May, 2020, respectively.

All our Senior Secured Facilities are being guaranteed irrevocably and unconditionally, subject to certain customary limitations and agreed security principles, on a joint and several basis, by the Issuer and the Guarantors. The lenders under each Existing Senior Secured Facility have acceded, and the lenders under the New Senior Secured Facilities will accede, to the Intercreditor Agreement. Any amounts outstanding under the Existing Senior Secured Facilities are, and any amounts outstanding under the New Senior Secured Facilities will be, secured by the same Collateral that secures (or will secure, as applicable) the Super Senior Revolving Credit Facility, each other Senior Secured Facility, the Existing Notes and, upon issuance of the Additional Notes, the Additional Notes.

The Super Senior Revolving Credit Facility and the Senior Secured Facilities each contain customary information and general loan style covenants and will also include restrictive covenants that closely track those contained in the Conditions of Issue of the Notes.

The Super Senior Revolving Credit Facility and the Senior Secured Facilities each contain customary events of default (subject in certain cases to agreed grace periods, thresholds and other qualifications) including, a cross default (including with respect to an event of default under, and as defined in, the Conditions of Issue), non-payment, misrepresentation, insolvency and insolvency proceedings, unlawfulness, litigation and material adverse change the occurrence of which would allow the agent under each Senior Secured Facility (who shall do so if directed by the required majority of the lenders) to accelerate all or part of the loan outstanding and/or terminate any available commitments and/or exercise any of its rights and remedies under the Super Senior Revolving Credit Facility or relevant Senior Secured Facility, as applicable, and other related finance documents.

The Super Senior Revolving Credit Facility and the Senior Secured Facilities and any non-contractual obligations arising out of or in connection with them are governed by and construed and enforced in accordance with German law.

SUPER SENIOR REVOLVING CREDIT FACILITY

On April 23, 2015, we entered into the Super Senior Revolving Credit Facility. The Super Senior Revolving Credit Facility provides for €50.0 million of committed financing (the “**Total Commitments**”), which is available for utilization by way of the drawing of cash revolving loans, and by way of ancillary facilities, until the date falling one month prior to the Final SSRCF Maturity Date (as defined below). On December 1, 2015, we entered into an amendment to the Super Senior Revolving Credit Facility to re-set the previous consolidated net leverage ratio test, upon the CHP Acquisition being completed. On December 21, 2017, we further entered into an amendment and restatement agreement relating to the Super Senior Revolving Credit Facility (the “**SSRCF Amendment and Restatement Agreement**”), among other things, to affect significant improved terms, give us greater flexibility and affect the accession of Goldman Sachs International Bank and J.P. Morgan Securities plc as new, additional lenders under the Super Senior Revolving Credit Facility. This description describes the terms of the Super Senior Revolving Credit Facility as amended and restated by the SSRCF Amendment and Restatement Agreement.

The original borrowers under the Super Senior Revolving Credit Facility are the Issuer, Progroup Board s.r.o., Progroup Board sp. z o.o., and Progroup Board Ltd. The Super Senior Revolving Credit Facility is being guaranteed by the Guarantors (as defined below under “*Security and Guarantees*”) and the Issuer. The facility agent (the “**Agent**”) under the Super Senior Revolving Credit Facility is Deutsche Bank Luxembourg S.A.

Increase Option

The Issuer may, on one or more occasions and subject to certain conditions set out in the Super Senior Revolving Credit Facility, by delivering to the Agent a duly completed increase request no later than thirty (30) business days nor earlier than sixty (60) business days before the date on which such increase is to take effect, request an increase of the total commitments under the Super Senior Revolving Credit Facility in an amount that is €10 million or, if more, an integral multiple of €1 million, provided that the aggregate amount of any such increases of the total commitments must not exceed €30 million. This provision will give us the option to increase the total commitments under the Super Senior Revolving Credit Facility from currently €50 million to up to €80 million. Each lender under the Super Senior Revolving Credit Facility will have the right, at its sole discretion, to agree or reject (in whole or in part) an increase request. If, following an allocation process set for the Super Senior Revolving Credit Facility, the amount of the increased commitments of the existing lenders under the Super Senior Revolving Credit Facility is less than requested by the Issuer, the Issuer may (through the Agent) then request any existing lender under the Senior Revolving Credit Facility which is willing to do so (or another bank or financial institution which is not an existing lender and which is willing to do so) to (additionally) further increase its commitment by such amount notified to it, or part thereof, (or, as the case may be, accede to the Super Senior Revolving Credit Facility as a lender with such new commitment), subject to certain conditions set forth in the Super Senior Revolving Credit Facility.

Ancillary Facilities

A lender (or any of its affiliates) may make available to a borrower under the Super Senior Revolving Credit Facility all or part of that lender’s undrawn commitment in the Super Senior Revolving Credit Facility by way of ancillary facilities such as overdraft facilities, guarantees, bonding, documentary or stand-by letter of credit facilities, short-term loan facilities, foreign exchange facilities or any other facility or accommodation required in connection with the business of the Group and which is agreed between the Issuer and the relevant lender (or its affiliate), other than derivative or other transactions where the potential loss may be greater than the relevant Ancillary Lender’s commitments under the Ancillary Facility plus customary interest and fees, subject to the satisfaction of certain conditions precedent.

Repayments and prepayments

The Super Senior Revolving Credit Facility will terminate on March 27, 2024 (the “**Final SSRCF Maturity Date**”) and any amounts still outstanding at such date will be immediately due and payable.

Subject to certain conditions, we may voluntarily prepay our utilizations and/or permanently cancel all or part of the available commitments under the Super Senior Revolving Credit Facility by giving three business days’ prior notice to the Agent (provided that such prepayment or cancellation must be, if in part, in a minimum amount of €1 million) or the remainder if the outstanding loan or the remaining commitments are less than €1 million.

Amounts prepaid or repaid may (subject to the terms of the Super Senior Revolving Credit Facility) be re-borrowed.

In addition to voluntary prepayments, the Super Senior Revolving Credit Facility requires mandatory cancellation and, if applicable, prepayment in full or in part in certain circumstances, including:

- with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Super Senior Revolving Credit Facility; and
- under the circumstances described under the second bullet under “—*Purchase Condition*” below.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the Agent describing the transaction or transactions that constituted the Change of Control and offer to repay each lender’s participation under the loans on the date specified in such notice (the “**Change of Control Offer**”) which date shall be no earlier than 30 days and no later than 60 days from the date such

notice is mailed (the “**Change of Control Repayment Date**”), but no later than the respective change of control offer for any of the Senior Secured Debt (as defined below). Pursuant to the Change of Control Offer, each lender will have the right to require the original borrowers to repay such lender’s participation in any loans together with accrued and unpaid interest and any additional amounts accrued under the finance documents in respect of any such participation in any such loans on the Change of Control Repayment Date, whereupon the commitment of that lender will be cancelled.

“**Change of Control**” means the occurrence of the following:

- (i) for as long as no Public Market exists for the Capital Stock of the Issuer (or a Holding Company), the Issuer becoming aware of any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Holder acquiring and holding, directly or indirectly, the control over more than 50% of the issued and outstanding Voting Stock of the Issuer measured by voting power rather than number of shares;
- (ii) at any time that a Public Market exists for the Capital Stock of the Issuer (or a Holding Company), the Issuer becoming aware of (i) any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Holder acquiring and holding, directly or indirectly, the control over more than 30% of the issued and outstanding Voting Stock of the Issuer measured by voting power rather than number of shares and (ii) Permitted Holders holding, directly or indirectly, the control over fewer of the issued and outstanding Voting Stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its Restricted Subsidiaries taken as a whole to a Person other than a Permitted Holder; or
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of assets of the Issuer.

“**Senior Secured Debt**” means the aggregate principal amount outstanding, from time to time, under the Notes, any borrowings under the Senior Secured Facilities and any other liabilities of the Issuer or the Guarantors in respect of any loan, credit or guarantee facility, notes, indenture or security that rank equally in right of payment with the liabilities under the Notes and the Senior Secured Facilities, as applicable, and which are permitted to be incurred under the terms of the Super Senior Revolving Credit Facility and are permitted under the terms of the Intercreditor Agreement to share (and do share) in the Collateral on an equal and ratable basis as the creditors in relation to the Notes and Senior Secured Facilities.

Interest and Fees

The Super Senior Revolving Credit Facility bears interest at a rate per annum equal to EURIBOR, LIBOR, WIBOR, PRIBOR or BUBOR, as applicable, plus a margin of 2.00% per annum.

We are also required to pay a commitment fee in arrears at the end of each calendar quarter during the availability period, on available but unused commitments under the Super Senior Revolving Credit Facility at a rate of 35% of the applicable margin under the Super Senior Revolving Credit Facility.

We are also required to pay fees related to the issuance of ancillary facilities and certain fees to the arrangers, the Agent and the Security Agent in connection with the Super Senior Revolving Credit Facility.

Security and Guarantees

The Super Senior Revolving Credit Facility is being guaranteed irrevocably and unconditionally, subject to certain customary limitations and agreed security principles, on a joint and several basis, by the Issuer, Progroup Board GmbH, Progroup Logistics GmbH, Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Power 1 GmbH, Progroup Board s.r.o., Progroup Board sp. z o.o. and Progroup Board Ltd. (the “**Guarantors**”).

The Super Senior Revolving Credit Facility also provides that (subject to certain customary limitations and agreed security principles):

- as at December 31 of each year (the “**Accounting Reference Date**”), the aggregate EBITDA of the Issuer and the Guarantors (calculated on the same basis as Consolidated EBITDA (as defined in the Conditions of Issue), eliminating the effects of all intra-Group transactions and provided that the EBITDA of any entity that is negative shall be deemed to be zero, must represent at least 80% of the Consolidated EBITDA of the Group (with the EBITDA of any entity that is negative deemed to be zero) determined annually on the basis of the relevant financial statements of the members of the Group (the “**Guarantor Coverage Test**”); provided that no breach of the Guarantor Coverage Test shall occur if within 120 days of the delivery of the audited consolidated financial statements of the Issuer for the financial year ended on the relevant Accounting Reference Date to the Agent the Issuer procures, subject to agreed security principles, that additional Restricted Subsidiaries become Guarantors such that if they had been Guarantors on the relevant Accounting Reference Date, the Guarantor Coverage Test would have been satisfied.; and
- (i) any wholly-owned member of the Group that holds shares in an obligor (other than the Issuer) and (ii) a member of the Group (other than the Issuer) that has EBITDA (calculated on same basis as Consolidated EBITDA representing 10% or more of Consolidated EBITDA or has total assets or sales representing 10% or more of the total assets or sales of the Group (in each case, after elimination of any effects of any intra-Group transactions) must become a guarantor under the Super Senior Revolving Credit Facility and grant security as the Agent may require (subject to customary limitations and agreed security principles), within 120 days.

Covenants

The Super Senior Revolving Credit Facility contains customary information and general loan style covenants as well as restrictive covenants that closely track those contained in the Conditions of Issue of the Notes. The Super Senior Revolving Credit Facility also requires the Issuer to monitor each member of the Group’s financial and operating performance and to ensure that the Issuer is in compliance with the Interest Coverage Ratio (as defined below) in respect of any period of twelve months ending on a quarter-end date (a “**Testing Period**”) during any time during which the aggregate base currency amount of all utilizations (in certain circumstances taking into account proposed utilizations) and cash ancillary outstandings under the Super Senior Revolving Credit Facility will be equal to or greater than 40 per cent. of the total commitments thereunder (a “**Trigger Period**”).

“**Interest Coverage Ratio**” in respect of any Testing Period, means the ratio of (i) the aggregate amount of Consolidated EBITDA for such Testing Period to (ii) the aggregate amount of the Consolidated Net Interest Expenses of the Group for such Testing Period.

“**Consolidated Net Interest Expenses**” in respect of any Testing Period means the consolidated interest expenses (*Zinsaufwand*) of the Group for such Testing Period, excluding the consolidated interest-like expenses (*zinsähnlicher Aufwand*) of the Group for such Testing Period, after deducting the consolidated interest income (*Zinsertrag*) of the Group for such Testing Period.

The financial covenant relating to the “Interest Coverage Ratio” will be tested on quarterly test dates as long as a Trigger Period is continuing.

Interest Cover

While a Trigger Period has occurred and is continuing, the Interest Coverage Ratio shall not be less than 3.50:1, provided that, for a maximum of four times during the life of the facilities under the Super Senior Revolving Credit Facility, a breach of Interest Coverage Ratio covenant shall only constitute a default under the Super Senior Revolving Credit Facility if it is not complied with in respect of two successive Testing Periods.

Purchase Condition

The Super Senior Revolving Credit Facility only allows members of the Group to repay, purchase, defease or redeem (or otherwise retire for value) or acquire any Senior Secured Debt (as described under “—Repayments and Prepayments” above) prior to its stated maturity (or offer to do so) if either:

- such purchase being funded, directly or indirectly, with the proceeds of any Refinancing Indebtedness (as defined in the Conditions of Issue) or the proceeds of a sale of Capital Stock (as defined in the Conditions of Issue) of the Issuer, Subordinated Shareholder Debt (as defined in the Conditions of Issue) or a contribution to the equity of the Issuer (other than by a subsidiary of the Issuer) in accordance with the restrictive covenants under the Super Senior Revolving Credit Facility (which closely track those that will be contained in the Conditions of Issue of the Notes;
- at the same time as the relevant purchase, the Issuer permanently cancels the total commitments and, if applicable, permanently prepays any utilizations in the same proportion as the amount of the purchase bears to the aggregate principal amount of our senior secured debt outstanding on March 27, 2018, provided that the Issuer shall only be required to cancel any commitments and prepay any utilizations in connection with any purchase until the total commitments (as so reduced) are equal to 40 percent of the total commitments under the Super Senior Revolving Credit Facility (after taking into account any prior increases as described under “—Increase Option” above;
- the Interest Coverage Ratio for the last Testing Period ending immediately prior to the date on which such purchase is contractually committed is equal to or higher than 3.50:1 after giving *pro forma* effect to the relevant purchase and any Indebtedness incurred to fund such purchase;
- such purchase is made following the occurrence of a Change of Control and the Issuer has fully complied with its obligations in relation to such Change of Control as set out under “—Repayments and Prepayments” above prior to any such purchase; or
- following the completion of the purchase, Senior Secured Debt (as described under “—Repayments and Prepayments” above) with an aggregate principal amount equal to 50% or more of the aggregate principal amount of our senior secured debt outstanding on March 27, 2018 will remain outstanding,

unless, in each case, a default is continuing or would result from the purchase.

EXISTING SENIOR SECURED PLN FACILITIES

On December 1, 2015, Progroup Board sp. z o.o., as borrower, the Issuer and the then-existing Guarantors, as guarantors, entered into a PLN-denominated senior secured facility agreement (the “**2015 Senior Secured PLN Facility**”) with Commerzbank Aktiengesellschaft as facility agent, arranger and original lender. The 2015 Senior Secured PLN Facility provided for PLN 107 million of committed credit that Progroup Board sp. z o.o. could draw as an amortizing term loan until March 31, 2016 (the “**2015 Senior Secured PLN Facility Availability Period**”). As of the date of this offering memorandum, PLN 58.9 million in borrowings under the 2015 Senior Secured PLN Facility remained outstanding. The borrowings under the 2015 Senior Secured PLN Facility were used for the partial repayment of a then-existing intra-group loan between Progroup Board GmbH as lender and Progroup Board sp. z o.o. and the payment of related transaction costs.

In addition, on May 31, 2016, Progroup Board sp. z o.o., as borrower, the Issuer and the Guarantors, as guarantors, entered into another PLN-denominated senior secured facility agreement (the “**2016 Senior Secured PLN Facility**” and together with the 2015 Senior Secured PLN Facility, the “**Existing Senior Secured PLN Facilities**”) with Commerzbank Aktiengesellschaft as facility agent, arranger and original lender to fund the establishment of our corrugated board production site (PW10) in Trzcinica, Poland. The 2016 Senior Secured PLN Facility also provides for PLN 107 million of committed credit that Progroup Board sp. z o.o. is required to fully draw as an amortizing term loan until May 31, 2017 (the “**2016 Senior Secured PLN Facility Availability Period**”). As of the date of this offering memorandum, PLN 76.0 million in borrowings under the 2016 Senior Secured PLN Facility remained outstanding.

On December 21, 2017, we entered into separate amendment and restatement agreements relating to the Existing Senior Secured PLN Facilities (each a “**2017 PLN Facility Amendment and Restatement Agreement**”). We subsequently cancelled and replaced the 2017 PLN Facility Amendment and Restatement Agreements by certain separate new amendment and restatement agreements, each dated March 26, 2018 (the “**2018 PLN Facility Amendment and Restatement Agreements**”) to align the

restrictive covenants in the covenant schedule of each Existing Senior Secured PLN Facility with the relevant restrictive covenants contained in the Conditions of Issue of the Notes. In addition, the 2018 PLN Facility Amendment and Restatement Agreements provided for a cashless conversion and re-borrowing under each Existing Senior Secured PLN Facility. The following descriptions of certain provisions of the Existing Senior Secured PLN Facilities summarize the relevant provisions of the existing Senior Secured PLN Facilities as amended and restated by the 2018 PLN Facility Amendment and Restatement Agreements, as so further amended.

Repayments and prepayments

The 2015 Senior Secured PLN Facility has a six year term and the 2016 Senior Secured PLN Facility has a five year term, each with a final maturity date of December 31, 2021 (the “**Final PLN Facility Maturity Date**”).

Following an initial year of no repayments, Progroup Board sp. z. o.o. is required to repay the PLN 107 million in original borrowings under the 2015 Senior Secured PLN Facility in 20 equal, quarterly installments, commencing on March 31, 2017 and ending on the Final PLN Facility Maturity Date.

Progroup Board sp. z. o.o. is required to repay the PLN 107 million in original borrowings under the 2016 Senior Secured PLN Facility by repaying on each repayment date an amount which reduces the amount of the aggregate borrowings outstanding under the 2016 Senior Secured PLN Facility by an amount as set out in the following table:

<u>Repayment Date</u>	<u>Repayment Installment in PLN</u>	<u>Repayment Date</u>	<u>Repayment Installment in PLN</u>
June 30, 2017	5,000,000	December 31, 2019	4,000,000
September 30, 2017	5,000,000	March 31, 2020	5,500,000
December 31, 2017	5,000,000	June 30, 2020	5,500,000
March 31, 2018	3,000,000	September 30, 2020	5,500,000
June 30, 2018	3,000,000	December 31, 2020	5,500,000
September 30, 2018	3,000,000	March 31, 2021	10,500,000
December 31, 2018	3,000,000	June 30, 2021	10,500,000
March 31, 2019	4,000,000	September 30, 2021	10,500,000
June 30, 2019	4,000,000	Final PLN Facility	The remaining
September 30, 2019	4,000,000	Maturity Date	outstanding amount

Progroup Board sp. z. o.o. may voluntarily prepay the whole or part of the loan outstanding under the relevant Existing Senior Secured PLN Facility by giving five business days’ prior notice to the agent (but if in part, being an amount that reduces the amount of the loan by a minimum of PLN 5 million or the remainder if the outstanding loan is less than PLN 5 million).

In addition to voluntary prepayments, each Existing Senior Secured PLN Facility requires mandatory cancellation and, if applicable, prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the relevant Existing Senior Secured PLN Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under each Existing Senior Secured PLN Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender’s participation under the Existing Senior Secured PLN Facilities in the loans and to cancel each lender’s commitment on the date specified in such notice (the “**Change of Control Offer**”) which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the “**Change of Control Repayment Date**”) but no later than the respective change of control offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Existing Senior Secured PLN Facilities will have the right to require Progroup Board sp. z. o.o. to prepay all or any part of the principal amount of such lender’s participation in the loans at a prepayment price in cash equal to (i) if the Change of Control occurs on or prior to December 31, 2020, 104.35% of the aggregate principal amount of such lender’s participation in the loans; or (ii) if the Change of Control occurs after December 31, 2020, the aggregate principal amount of such lender’s participation in the loans plus an indemnity for early repayment (*Vorfälligkeitsentschädigung*) determined by each lender in accordance with applicable law and jurisprudence, plus, in each case, accrued and unpaid interest, and any additional amounts accrued under the finance documents, if any to but excluding the Change of Control Repayment Date, whereupon the commitment of that lender will be cancelled.

“**Change of Control**”, for purposes of the Existing Senior Secured PLN Facilities, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;
- (ii) at any time that a public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of (i) any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted Subsidiaries taken as a whole to a person other than a permitted shareholder;
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer; or
- (v) the Issuer ceases to hold (directly or indirectly) 100% of the shares in Progroup Board sp. z o.o.

Interest and Fees

The 2015 Senior Secured PLN Facility bears interest at a fixed rate of 4.27% per annum, and the 2016 Senior Secured PLN Facility bears interest at a fixed rate of 3.90% per annum.

Progroup Board sp. z o.o. was also required to pay a commitment fee in arrears at the end of each calendar quarter at a rate of 0.75% per annum with regard to any available but unused commitments under the 2016 Senior Secured PLN Facility during the period starting on July 11, 2016 until the last day of the 2016 Senior Secured PLN Facility Availability Period.

Progroup Board sp. z o.o. also paid upfront fees of €25,000 to Commerzbank Aktiengesellschaft, as arranger in connection with each Senior Secured PLN Facility.

EXISTING SENIOR SECURED IKB FACILITIES

On December 21, 2017, the Issuer, as company and borrower, Progroup Board GmbH and the other Guarantors as guarantors, entered into a euro-denominated senior secured facility agreement (the “**Existing Senior Secured EUR Facility**”) with IKB Deutsche Industriebank AG as agent and original lender. The Senior Secured EUR Facility originally provided for €38,500,000 of total committed credit, including (i) a €8.5 million term loan facility (“**Facility A**”) and (ii) a €30.0 million term loan facility (“**Facility B**”). Both Facility A and Facility B are refinanced by funds made available by Kreditanstalt für Wiederaufbau (“**KfW**”), the German government-owned development bank, under certain KfW programs that offer subsidized funding for eligible investments that promote energy efficiency. We have fully utilized both Facility A and Facility B. However, as of December 31, 2018, the amount repayable under Facility A was reduced to €7.155 million as a result of a €1.345 million repayment grant. On July 13, 2018, to fund a portion of the expected investment into the establishment of our new paper mill (PM3) in Sandersdorf-Brehna, Germany, the Issuer, Progroup Paper PM3 GmbH and the other Guarantors entered into an amendment and restatement of the Existing Senior Secured IKB Facilities, adding an additional €25.0 million term loan facility (“**Facility C**”), also refinanced by KfW, which may be utilized by Progroup Paper PM3 GmbH until August 10, 2019.

The dedicated purposes of the borrowings under the Existing Senior Secured IKB Facilities are (i) to fund the installation of a waste heat system for our paper machine (PM1) in Burg, Germany, in the case of the Facility A, (ii) to fund certain eligible investments in connection with the establishment of our new

corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom, in the case of the Facility B and (iii) to fund certain eligible investments in connection with the proposed establishment of our new paper mill (PM3) in Sandersdorf-Brehna, Germany, in the case of the Facility C.

Repayments and prepayments

The Facility A has a final maturity date of September 30, 2027, the Facility B has a final maturity date of December 30, 2027 and the Facility C has a final maturity date of 30 June 2028.

Subject to application of the repayment grant (*Tilgungszuschuss*) of €1,344,600 we were awarded as described below, we will be required to repay our borrowings under the Facility A in instalments by repaying on each Facility A repayment date an amount which reduces the amount of the outstanding borrowings under the Facility A by an amount as set out in the following table:

Facility A Repayment Date	Repayment Installment in EUR	Facility A Repayment Date	Repayment Installment in EUR
December 30, 2019	265,625	December 30, 2023	265,625
March 31, 2020	265,625	March 31, 2024	265,625
June 30, 2020	265,625	June 30, 2024	265,625
September 30, 2020	265,625	September 30, 2024	265,625
December 30, 2020	265,625	December 30, 2024	265,625
March 31, 2021	265,625	March 31, 2025	265,625
June 30, 2021	265,625	June 30, 2025	265,625
September 30, 2021	265,625	September 30, 2025	265,625
December 30, 2021	265,625	December 30, 2025	265,625
March 31, 2022	265,625	March 31, 2026	265,625
June 30, 2022	265,625	June 30, 2026	265,625
September 30, 2022	265,625	September 30, 2026	265,625
December 30, 2022	265,625	December 30, 2026	265,625
March 31, 2023	265,625	March 31, 2027	265,625
June 30, 2023	265,625	June 30, 2027	265,625
September 30, 2023	265,625	September 30, 2027	265,625

We will be required to repay our borrowings under the Facility B in instalments by repaying on each Facility B repayment date an amount which reduces the amount of the outstanding borrowings under the Facility B by an amount as set out in the following table:

Facility B Repayment Date	Repayment Installment in EUR	Facility B Repayment Date	Repayment Installment in EUR
March 31, 2020	937,500	March 31, 2024	937,500
June 30, 2020	937,500	June 30, 2024	937,500
September 30, 2020	937,500	September 30, 2024	937,500
December 30, 2020	937,500	December 30, 2024	937,500
March 31, 2021	937,500	March 31, 2025	937,500
June 30, 2021	937,500	June 30, 2025	937,500
September 30, 2021	937,500	September 30, 2025	937,500
December 30, 2021	937,500	December 30, 2025	937,500
March 31, 2022	937,500	March 31, 2026	937,500
June 30, 2022	937,500	June 30, 2026	937,500
September 30, 2022	937,500	September 30, 2026	937,500
December 30, 2022	937,500	December 31, 2026	937,500
March 31, 2023	937,500	March 31, 2027	937,500
June 30, 2023	937,500	June 30, 2027	937,500
September 30, 2023	937,500	September 30, 2027	937,500
December 30, 2023	937,500	December 31, 2027	937,500

We will be required to repay any borrowings under the Facility C in instalments by repaying on each Facility C repayment date an amount which reduces the amount of the outstanding borrowings under the Facility C by an amount as set out in the following table:

Facility C Repayment Date	Repayment Installment in EUR	Facility C Repayment Date	Repayment Installment in EUR
September 30, 2020	781,250	September 30, 2024	781,250
December 30, 2020	781,250	December 30, 2024	781,250
March 31, 2021	781,250	March 31, 2025	781,250
June 30, 2021	781,250	June 30, 2025	781,250
September 30, 2021	781,250	September 30, 2025	781,250
December 30, 2021	781,250	December 30, 2025	781,250
March 31, 2022	781,250	March 31, 2026	781,250
June 30, 2022	781,250	June 30, 2026	781,250
September 30, 2022	781,250	September 30, 2026	781,250
December 30, 2022	781,250	December 31, 2026	781,250
March 31, 2023	781,250	March 31, 2027	781,250
June 30, 2023	781,250	June 30, 2027	781,250
September 30, 2023	781,250	September 30, 2027	781,250
December 30, 2023	781,250	December 31, 2027	781,250
March 31, 2024	781,250	March 31, 2028	781,250
June 30, 2024	781,250	June 30, 2028	781,250

If the Facility A, the Facility B and/or the Facility C is not utilized in full at the end of the relevant availability period the relevant repayment instalments will, subject to the consent of KfW, be reduced *pro rata*. Should KfW withhold such consent, any unutilized amounts will be deducted from the relevant repayment instalments of the relevant facility in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date. In this case, the final maturity date of the relevant facility will be deemed to be the last repayment date on which a repayment instalment (or any part of it) remains to be made.

Under the terms of the Existing Senior Secured IKB Facilities, we may apply for a repayment grant (*Tilgungszuschuss*) of up to €1,344,600 with regard to Facility A and of up to €3.95 million with regard to Facility C, in each case funded from resources of the German Ministry of Economics and Technology (*BMWi*) on the repayment of all amounts borrowed under the relevant facility (each a “**KfW Repayment Grant**”). The amounts of each KfW Repayment Grant, if granted, are to be offset against the repayment instalments with regard to the relevant facility falling due after the date on which the KfW Repayment Grant is granted. According to the conditions applicable to the KfW Repayment Grant, we may only become entitled to the KfW Repayment Grant if, among other things: (i) KfW has received (via the Agent), in form and substance satisfactory to it, a use of funds certificate together with the relevant application promptly after the investment funded by the relevant facility has been made, subject to certain deadlines. If and to the extent the KfW Repayment Grant is awarded, the amounts granted thereunder are offset against the repayment instalments with regard to the relevant facility in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date with regard to the relevant facility. As of December 31, 2018, we were awarded the maximum KfW Repayment Grant of €1,344,600 with regard to the Facility A.

Subject to the payment of break costs, we may voluntarily prepay the whole or any part of any loan outstanding under the Existing Senior Secured IKB Facilities by giving ten business days’ prior notice to the agent (but if in part, being an amount that reduces the amount of such loan by a minimum amount of €5 million or the remainder).

In addition to voluntary prepayments, the Existing Senior Secured IKB Facilities require mandatory cancellation and, if applicable prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Existing Senior Secured IKB Facilities.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under the Existing Senior Secured IKB Facilities describing the transaction or transactions that constituted the Change of Control and offer to repay each lender’s participation in any loans under the Existing Senior Secured IKB Facilities in the loans on the date specified in such notice (the “**Change of Control Offer**”) which date shall be no earlier than 30 days and no later than 60 days from the date such

notice is mailed (the “**Change of Control Repayment Date**”) but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Existing Senior Secured IKB Facilities will have the right to require us to prepay all or any part of the principal amount of such lender’s participation in the loans plus break costs determined by each lender in accordance with applicable law and jurisprudence, at least in an amount requested from such lender by KfW, plus, in each case, accrued and unpaid interest, and any additional amounts accrued under the finance documents.

“**Change of Control**”, for purposes of the Existing Senior Secured IKB Facilities, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;
- (ii) at any time that a public market exists for the capital stock of the company (or a holding company), the Issuer becoming aware of (i) any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder; or
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer;
- (v) or in case of Facility C the Issuer ceases to hold (directly or indirectly) 100% of the shares in Progroup Paper PM3 GmbH.

Interest and Fees

All borrowings under the Facility A and the Facility B bear interest at a fixed rate of 2.45% per annum, and any borrowings under the Facility C will bear interest at a fixed rate of 2.00% per annum.

We are also required to pay a commitment fee in arrears on each March 31, June 30, September 30 and December 30 at a rate of 0.25% per month with regard to any available but unused commitments in relation to the Facility C during the period starting on the date falling one day after August 8, 2019, until the last day of the relevant availability period.

Covenants

In addition to customary information and general loan style covenants and restrictive covenants that closely track those contained in the Conditions of Issue of the Notes, the Existing Senior Secured IKB Facilities require us to submit to KfW, via the agent under the Existing Senior Secured IKB Facilities, certain use of funds certificates (*Verwendungsnachweise*), providing evidence that we have made use of the funds borrowed under the Facility A, the Facility B and the Facility C, as applicable, in accordance with the specified purpose described above and relevant KfW program rules. Furthermore, we are required to procure that the investment measures implemented with the borrowings under the Facility A and Facility C are operated in accordance with their designated purpose for a period of at least five (5) years (the “**Minimum Operating Period**”), and during the Minimum Operating Period, no part of the relevant investments may, subject to the principle of proportionality, be abandoned or sold-off (unless the further operation in accordance with the designated purpose is safeguarded).

Application of KfW General Terms and Condition; KfW Events of Default

In addition to the terms set forth in the Existing Senior Secured IKB Facilities, our relationship with the lenders under the Existing Senior Secured IKB Facilities is also governed by the general terms and conditions of KfW, which are incorporated into the Existing Senior Secured IKB Facilities by reference. In case of any conflict between the provisions of the Existing Senior Secured IKB Facilities and the general terms and conditions of KfW, the provisions of the general terms and conditions of KfW will prevail. In particular, in addition to the customary events of the default contained in the Existing Senior Secured IKB Facilities as described under “*Overview*” above, the general terms and conditions of KfW also contain certain bespoke termination rights related to the quasi-governmental nature of the subsidized funding provided by KfW, through IKB Deutsche Industriebank AG, under the Existing Senior Secured IKB Facilities.

EXISTING SENIOR SECURED GBP FACILITY

On December 21, 2017, the Issuer, as company and guarantor, Progroup Board Ltd. as borrower and guarantor, and the other Guarantors, as guarantors, entered into a GBP-denominated senior secured facility agreement (the “**Existing Senior Secured GBP Facility**”) with Goldman Sachs Bank USA, as original lender, and Goldman Sachs Lending Partners LLC, as agent. The Senior Secured GBP Facility provides for a GBP70,000,000 non-amortizing term loan, which Progroup Board Ltd. had fully drawn as of the date of this offering memorandum.

The Existing Senior Secured GBP Facility permits the borrowings under it to be used for (i) the partial refinancing of the former PIK toggle notes of our parent JH-Holding and our former senior secured fixed rate notes due 2022; (ii) any minority shareholder payments required in connection with the foregoing; (iii) refinancing investments or costs in connection with the establishment and/or start-up of our proposed corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom; (iv) any transaction costs related to any of the foregoing; and (v) towards the repayment of certain intra-group loans granted by the Issuer which shall use such proceeds for the purpose of the foregoing clauses (i) through (iv).

Repayments and prepayments

The Existing Senior Secured GBP Facility has a final maturity date of June 30, 2025, at which date Progroup Board Ltd. will be required to repay the aggregate loans under the Senior Secured GBP Facility in full.

Progroup Board Ltd. may voluntarily prepay the whole or any part of the loan made available to it under the Existing Senior Secured GBP Facility by giving five business days’ notice (or such shorter period as the majority lenders may agree) to the agent (but if in part, being an amount that reduces the amount of the loan by a minimum of GBP1 million or the remainder if the outstanding loan is less than GBP1 million).

In addition to voluntary prepayments, the Existing Senior Secured GBP Facility requires mandatory cancellation and, if applicable, prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Existing Senior Secured GBP Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under the Existing Senior Secured GBP Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender’s participation in any loans under the Existing Senior Secured GBP Facility in the loans and to cancel each lender’s commitment on the date specified in such notice (the “**Change of Control Offer**”) which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the “**Change of Control Repayment Date**”) but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Existing Senior Secured GBP Facility will have the right to require Progroup Board Ltd. to prepay such lender’s participation in the loans together with accrued and unpaid interest and any additional amounts accrued under the finance documents in respect of any such participation in any such loans on the Change of Control Prepayment Date, whereupon the commitment of that lender will be cancelled.

“**Change of Control**”, for purposes of the Existing Senior Secured GBP Facility, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning

given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;

- (ii) at any time that a public market exists for the capital stock of the company (or a holding company), the Issuer becoming aware of (i) any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder;
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer; or
- (v) the Issuer ceases to hold (directly or indirectly) 100% of the shares in Progroup Board Ltd.

Interest and Fees

The Existing Senior Secured GBP Facility bears interest at a rate per annum equal to LIBOR plus a margin of 3.00% per annum.

EXISTING SENIOR SECURED SAARLB FACILITY

On July 13, 2018, the Issuer, as company and guarantor, Progroup Paper PM 3 GmbH as borrower, and the other Guarantors as guarantors, entered into a euro-denominated senior secured facility agreement (the “**Existing Senior Secured SaarLB Facility**”) with Landesbank Saar as agent and original lender. The Senior Secured SaarLB Facility provides for €25,000,000 of total committed credit (the “**Facility**”). The Facility is refinanced by funds made available by KfW under a certain KfW program that offers subsidized funding for eligible investments that promote energy efficiency. Progroup Paper PM3 GmbH may utilize the Facility until August 10, 2019.

The purpose of the borrowings under the Existing Senior Secured SaarLB Facility is to partially fund certain eligible investments in connection with the proposed establishment of our new paper mill (PM3) in Sandersdorf-Brehna, Germany.

Repayments and prepayments

The Facility has a final maturity date of September 30, 2028.

We will be required to repay our borrowings under the Facility in instalments by repaying on each repayment date an amount which reduces the amount of the outstanding borrowings by an amount as set out in the following table:

<u>Facility Repayment Date</u>	<u>Repayment Installment in EUR</u>	<u>Facility Repayment Date</u>	<u>Repayment Installment in EUR</u>
December 30, 2020	781,250	December 30, 2024	781,250
March 31, 2021	781,250	March 31, 2025	781,250
June 30, 2021	781,250	June 30, 2025	781,250
September 30, 2021	781,250	September 30, 2025	781,250
December 30, 2021	781,250	December 30, 2025	781,250
March 31, 2022	781,250	March 31, 2026	781,250
June 30, 2022	781,250	June 30, 2026	781,250
September 30, 2022	781,250	September 30, 2026	781,250
December 30, 2022	781,250	December 31, 2026	781,250
March 31, 2023	781,250	March 31, 2027	781,250
June 30, 2023	781,250	June 30, 2027	781,250
September 30, 2023	781,250	September 30, 2027	781,250
December 30, 2023	781,250	December 31, 2027	781,250
March 31, 2024	781,250	March 31, 2028	781,250
June 30, 2024	781,250	June 30, 2028	781,250
September 30, 2024	781,250	September 30, 2028	781,250

If the Facility is not utilized in full at the end of the availability period the relevant repayment instalments will be reduced *pro rata*, subject to the consent of KfW. Should KfW withhold such consent, any unutilized amounts will be deducted from the repayment instalments in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date. In this case, the final maturity date will be deemed to be the last repayment date on which a repayment instalment (or any part of it) remains to be made.

Under the terms of the Existing Senior Secured SaarLB Facility, we may apply for a repayment grant (*Tilgungszuschuss*) of up to €3,944,999.11 funded from resources of the German Ministry of Economics and Technology (*BMWi*) on the repayment of all amounts borrowed under the Facility (the “**KfW Repayment Grant**”). The amount of the KfW Repayment Grant, if granted, is to be offset against the repayment instalments falling due after the date on which the KfW Repayment Grant is granted. According to the conditions applicable to the KfW Repayment Grant, we may only become entitled to the KfW Repayment Grant if, among other things: (i) KfW has received (via the Agent), in form and substance satisfactory to it, a use of funds certificate together with the relevant application promptly after the investment funded by the Facility has been made, subject to certain deadlines. If and to the extent the KfW Repayment Grant is awarded, the amounts granted thereunder are offset against the repayment instalments with regard to the Facility in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date with regard to the Facility.

Subject to the payment of break costs, we may voluntarily prepay the whole or any part of any loan outstanding under the Existing Senior Secured SaarLB Facility by giving ten business days’ prior notice to the agent (but if in part, being an amount that reduces the amount of such loan by a minimum amount of €3 million or the remainder). In case of a prepayment must be made prior to the next Interest Payment no break costs must be paid.

In addition to voluntary prepayments, the Existing Senior Secured SaarLB Facility requires mandatory cancellation and, if applicable prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Existing Senior Secured SaarLB Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under the Existing Senior Secured SaarLB Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender’s participation in any loans and to cancel each Lender’s Commitment under the Existing Senior Secured SaarLB Facility in the loans on the date specified in such notice (the “**Change of Control Offer**”) which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the “**Change of Control Repayment Date**”) but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Existing Senior Secured SaarLB Facility will have

the right to require us to prepay all or any part of the principal amount of such lender's participation in the loans plus break costs determined by each lender in accordance with applicable law and jurisprudence, at least in an amount requested from such lender by KfW, plus, in each case, accrued and unpaid interest, and any additional amounts accrued under the finance documents whereupon the Commitment of that Lender will be cancelled.

“Change of Control”, for purposes of the Existing Senior Secured SaarLB Facility, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;
- (ii) at any time that a public market exists for the capital stock of the company (or a holding company), the Issuer becoming aware of (i) any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder; or
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer; or
- (v) the Issuer ceases to hold (directly or indirectly) 100% of the shares in Progroup Paper PM3 GmbH.

Interest and Fees

All borrowings under the Facility bear interest at a fixed rate of 2.20% per annum.

We are also required to pay a commitment fee in arrears on each March 31, June 30, September 30 and December 30 at a rate of 0.25% per month with regard to any available but unused commitments in relation to the Facility during the period starting on the date falling one day after August 10, 2019, until the last day of the relevant availability period.

Covenants

In addition to customary information and general loan style covenants and restrictive covenants that closely track those contained in the Conditions of Issue of the Notes, the Existing Senior Secured SaarLB Facility requires us to submit to KfW, via the agent under the Existing Senior Secured SaarLB Facility, certain use of funds certificates (*Verwendungsnachweise*), providing evidence that we have made use of the funds borrowed under the Facility, as applicable, in accordance with the specified purpose described above and relevant KfW program rules. Furthermore, we are required to procure that the investment measures implemented with the borrowings under the Facility are operated in accordance with their designated purpose for a period of at least five (5) years (the **“Minimum Operating Period”**), and during the Minimum Operating Period, no part of the relevant investments may, subject to the principle of proportionality, be abandoned or sold-off (unless the further operation in accordance with the designated purpose is safeguarded).

Application of KfW General Terms and Condition; KfW Events of Default

In addition to the terms set forth in the Existing Senior Secured SaarLB Facility, our relationship with the lenders under the Existing Senior Secured SaarLB Facility is also governed by the general terms and

conditions of KfW, which are incorporated into the Existing Senior Secured SaarLB Facility by reference. In case of any conflict between the provisions of the Existing Senior Secured SaarLB Facility and the general terms and conditions of KfW, the provisions of the general terms and conditions of KfW will prevail. In particular, in addition to the customary events of the default contained in the Existing Senior Secured SaarLB Facility as described under “*Overview*” above, the general terms and conditions of KfW also contain certain bespoke termination rights related to the quasi-governmental nature of the subsidized funding provided by KfW, through Landesbank Saar, under the Existing Senior Secured SaarLB Facility.

EXISTING SENIOR SECURED COMMERZBANK FACILITIES

On July 13, 2018, the Issuer, as company and guarantor, Progroup Paper PM3 GmbH as borrower and guarantor, and the other Guarantors as guarantors, entered into a euro-denominated senior secured facilities agreement (the “**Existing Senior Secured Commerzbank Facilities**”) with Commerzbank Aktiengesellschaft as agent and original lender. The Existing Senior Secured Commerzbank Facilities provide for €75,000,000 of total committed credit, including (i) a €45 million term loan facility (“**Facility A**”), (ii) a €15.0 million term loan facility (“**Facility B**”) and (iii) a further €15.0 million term loan facility (“**Facility C**”). Facility A is refinanced by funds made available by KfW under a certain KfW program that offers subsidized funding for eligible investments that promote energy efficiency. We have fully utilized both Facility B and Facility C. Unless previously utilized, Facility A will be automatically utilized on August 10, 2019, provided the proceeds can be used in accordance with the conditions of the KfW program.

The purpose of the borrowings under the Existing Senior Secured Commerzbank Facilities is to fund certain eligible investments in connection with the proposed establishment of our new paper mill (PM3) in Sandersdorf-Brehna, Germany. Borrowings under Facility B and Facility C may also be used for other capital expenditures of the Group if we reasonably conclude that the amounts borrowed count for the purpose of financing PM3.

Repayments and prepayments

The Facility A has a final maturity date of September 30, 2028 and Facility B and Facility C have a final maturity date of September 30, 2028.

We will be required to repay our borrowings under the Facility A in instalments by repaying on each Facility A repayment date an amount which reduces the amount of the outstanding borrowings under the Facility A by an amount as set out in the following table:

<u>Facility A Repayment Date</u>	<u>Repayment Installment in EUR</u>	<u>Facility A Repayment Date</u>	<u>Repayment Installment in EUR</u>
December 30, 2020	1,406,250	December 30, 2024	1,406,250
March 31, 2021	1,406,250	March 31, 2025	1,406,250
June 30, 2021	1,406,250	June 30, 2025	1,406,250
September 30, 2021	1,406,250	September 30, 2025	1,406,250
December 30, 2021	1,406,250	December 30, 2025	1,406,250
March 31, 2022	1,406,250	March 31, 2026	1,406,250
June 30, 2022	1,406,250	June 30, 2026	1,406,250
September 30, 2022	1,406,250	September 30, 2026	1,406,250
December 30, 2022	1,406,250	December 30, 2026	1,406,250
March 31, 2023	1,406,250	March 31, 2027	1,406,250
June 30, 2023	1,406,250	June 30, 2027	1,406,250
September 30, 2023	1,406,250	September 30, 2027	1,406,250
December 30, 2023	1,406,250	December 30, 2027	1,406,250
March 31, 2024	1,406,250	March 31, 2028	1,406,250
June 30, 2024	1,406,250	June 30, 2028	1,406,250
September 30, 2024	1,406,250	September 30, 2028	1,406,250

We will be required to repay our borrowings under the Facility B in instalments by repaying on each Facility B repayment date an amount which reduces the amount of the outstanding borrowings under the Facility B by an amount as set out in the following table:

<u>Facility B Repayment Date</u>	<u>Repayment Installment in EUR</u>	<u>Facility B Repayment Date</u>	<u>Repayment Installment in EUR</u>
June 30, 2021	500,000	March 31, 2025	500,000
September 30, 2021	500,000	June 30, 2025	500,000
December 30, 2021	500,000	September 30, 2025	500,000
March 31, 2022	500,000	December 30, 2025	500,000
June 30, 2022	500,000	March 31, 2026	500,000
September 30, 2022	500,000	June 30, 2026	500,000
December 30, 2022	500,000	September 30, 2026	500,000
March 31, 2023	500,000	December 30, 2026	500,000
June 30, 2023	500,000	March 31, 2027	500,000
September 30, 2023	500,000	June 30, 2027	500,000
December 30, 2023	500,000	September 30, 2027	500,000
March 31, 2024	500,000	December 30, 2027	500,000
June 30, 2024	500,000	March 31, 2028	500,000
September 30, 2024	500,000	June 30, 2028	500,000
December 30, 2024	500,000	September 30, 2028	500,000

We will be required to repay any borrowings under the Facility C in instalments by repaying on each Facility C repayment date an amount which reduces the amount of the outstanding borrowings under the Facility C by an amount as set out in the following table:

<u>Facility C Repayment Date</u>	<u>Repayment Installment in EUR</u>	<u>Facility C Repayment Date</u>	<u>Repayment Installment in EUR</u>
June 30, 2021	500,000	March 31, 2025	500,000
September 30, 2021	500,000	June 30, 2025	500,000
December 30, 2021	500,000	September 30,	500,000
March 31, 2022	500,000	December 30, 2025	500,000
June 30, 2022	500,000	March 31, 2026	500,000
September 30, 2022	500,000	June 30, 2026	500,000
December 30, 2022	500,000	September 30, 2026	500,000
March 31, 2023	500,000	December 30, 2026	500,000
June 30, 2023	500,000	March 31, 2027	500,000
September 30, 2023	500,000	June 30, 2027	500,000
December 30, 2023	500,000	September 30, 2027	500,000
March 31, 2024	500,000	December 30, 2027	500,000
June 30, 2024	500,000	March 31, 2028	500,000
September 30, 2024	500,000	June 30, 2027	500,000
December 30, 2024	500,000	September 30, 2028	500,000

If Facility A is not utilized in full at the end of the availability period the repayment instalments will, subject to the consent of KfW, be reduced *pro rata*. Should KfW withhold such consent, any unutilized amounts will be deducted from the repayment instalments of Facility A in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date. In this case, the final maturity date of Facility A will be deemed to be the last repayment date on which a repayment instalment (or any part of it) remains to be made.

Under the terms of the Existing Senior Secured Commerzbank Facilities, we may apply for a repayment grant (*Tilgungszuschuss*) of up to €7,109,999.85 with regard to Facility A funded from resources of the German Ministry of Economics and Technology (*BMWi*) on the repayment of all amounts borrowed under Facility A (each a “**KfW Repayment Grant**”). The amounts of the KfW Repayment Grant, if granted, are to be offset against the repayment instalments with regard to Facility A falling due after the date on which the KfW Repayment Grant is granted. According to the conditions applicable to the KfW Repayment Grant, we may only become entitled to the KfW Repayment Grant if, among other things: (i) KfW has received (via the Agent), in form and substance satisfactory to it, a use of funds certificate together with the relevant application promptly after the investment funded by Facility A has been made, subject to certain deadlines. If and to the extent the KfW Repayment Grant is awarded, the amounts granted

thereunder are offset against the repayment instalments with regard to Facility A in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date with regard to the Facility A.

Subject to the payment of break costs, we may voluntarily prepay the whole or any part of any loan outstanding under the Existing Senior Secured Commerzbank Facilities by giving ten business days' prior notice to the agent and provided KfW has consented to any voluntary prepayment of a loan under Facility A (but if in part, being an amount that reduces the amount of such loan by a minimum amount of €5.0 million or the remainder).

If we have not been awarded a KfW Repayment Grant by December 31, 2021 in an amount of at least €9.0 million which has been offset against the Facility A repayment instalments; then we will on March 31, 2025, in addition to the Facility A repayment instalment, the Facility B repayment instalment and the Facility C repayment instalment, make a mandatory prepayment (*Sondertilgung*) in an amount equal to any shortfall between (i) the amount of any KfW Repayment Grant actually offset against the Facility A repayment instalments by that date and (ii) €9.0 million. Any such mandatory prepayment shall be applied against any outstanding Facility B repayment instalments, Facility C repayment instalments due on that date in inverse chronological order, i.e. beginning with the repayment instalment for the last relevant repayment date. No Break Costs needs to be paid in case such repayment must be made.

In addition to voluntary prepayments, the Existing Senior Secured Commerzbank Facilities require mandatory cancellation and, if applicable prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Existing Senior Secured Commerzbank Facilities.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under the Existing Senior Secured Commerzbank Facilities describing the transaction or transactions that constituted the Change of Control and offer to repay each lender's participation in any loans and to cancel each Lender's Commitment under the Existing Senior Secured Commerzbank Facilities in the loans on the date specified in such notice (the "**Change of Control Offer**") which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the "**Change of Control Repayment Date**") but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Existing Senior Secured Commerzbank Facilities will have the right to require us to prepay all or any part of the principal amount of such lender's participation in the loans plus break costs determined by each lender in accordance with applicable law and jurisprudence, at least in an amount requested from such lender by KfW, plus, in each case, accrued and unpaid interest, and any additional amounts accrued under the finance documents, whereupon the Commitments of the Lender will be canceled.

"**Change of Control**", for purposes of the Existing Senior Secured Commerzbank Facilities, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;
- (ii) at any time that a public market exists for the capital stock of the company (or a holding company), the Issuer becoming aware of (i) any "person" or "group" of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder; or

- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer; or
- (v) the Issuer ceases to hold (directly or indirectly) 100% of the shares in Progroup Paper PM3 GmbH.

Interest and Fees

All borrowings under the Facility A will bear interest at a fixed rate of 2.3% per annum. All borrowings under the Facility B and the Facility C will bear interest at a fixed rate of 2.3% per annum.

We are also required to pay a commitment fee in arrears on each March 31, June 30, September 30 and December 30 at a rate of 0.25% per month with regard to any available but unused commitments in relation to the Facility A during the period starting on the date falling one day after August 10, 2019, until the last day of the relevant availability period.

Covenants

In addition to customary information and general loan style covenants and restrictive covenants that closely track those contained in the Conditions of Issue of the Notes, the Existing Senior Secured Commerzbank Facilities require us to submit to KfW, via the agent under the Existing Senior Secured Commerzbank Facilities, certain use of funds certificates (*Verwendungsnachweise*), providing evidence that we have made use of the funds borrowed under the Facility A in accordance with the specified purpose described above and relevant KfW program rules. Furthermore, we are required to procure that the investment measures implemented with the borrowings under the Facility A are operated in accordance with their designated purpose for a period of at least five (5) years (the “**Minimum Operating Period**”), and during the Minimum Operating Period, no part of the relevant investments may, subject to the principle of proportionality, be abandoned or sold-off (unless the further operation in accordance with the designated purpose is safeguarded).

Application of KfW General Terms and Condition; KfW Events of Default

In addition to the terms set forth in the Existing Senior Secured Commerzbank Facilities, our relationship with the lenders with regard to Facility A is also governed by the general terms and conditions of KfW, which are incorporated into the Existing Senior Secured Commerzbank Facilities by reference. In case of any conflict between the provisions of the Existing Senior Secured Commerzbank Facilities and the general terms and conditions of KfW, the provisions of the general terms and conditions of KfW will prevail in relation to the Facility A. In particular, in addition to the customary events of the default contained in the Existing Senior Secured Commerzbank Facilities as described under “*Overview*” above, the general terms and conditions of KfW also contain certain bespoke termination rights related to the quasi-governmental nature of the subsidized funding provided by KfW, through Commerzbank AG, under the Facility A.

EXISTING SENIOR SECURED HSBC FACILITY

On August 6, 2018, the Issuer, as company and guarantor, Progroup Paper PM3 GmbH as borrower and guarantor, and the other Guarantors as guarantors, entered into a euro-denominated senior secured facility agreement (the “**Existing Senior Secured HSBC Facility**”) with HSBC Trinkhaus & Burkhardt AG, as original lender and agent. The Existing Senior Secured HSBC Facility provides for a €30,000,000 non-amortizing loan, which Progroup Paper PM3 GmbH may utilize until November 30, 2023.

The dedicated purpose of our borrowings under the Existing Senior Secured HSBC Facility is to fund or refinance our proposed investments in connection with the proposed establishment of our new paper mill (PM3) in Sandersdorf-Brehna, Germany.

Repayments and prepayments

The Existing Senior Secured HSBC Facility has a final maturity date of December 31, 2023, at which date Progroup Paper PM3 GmbH will be required to repay the any loans under the Senior Secured HSBC Facility in full.

Progroup Paper PM3 GmbH may voluntarily prepay the whole or any part of the loan made available to it under the Existing Senior Secured HSBC Facility by giving not less than three business days’ notice (or such shorter period as the majority lenders may agree) to the agent (but if in part, being an amount that

reduces the amount of the loan by a minimum of €1.0 million or the remainder if the outstanding loan is less than €1.0 million).

In addition to voluntary prepayments, the Existing Senior Secured HSBC Facility requires mandatory cancellation and, if applicable, prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Existing Senior Secured HSBC Facility.

The Existing Senior Secured HSBC Facility also provides for a voluntary cancellation, upon a three business days' notice, of the whole or any part (being a minimum amount of €1.0 million or the remainder if the commitments are less than €1.0 million) of the available facility under the Existing Senior Secured HSBC Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under the Existing Senior Secured HSBC Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender's participation in any loans under the Existing Senior Secured HSBC Facility in the loans and to cancel each lender's commitment on the date specified in such notice (the "**Change of Control Offer**") which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the "**Change of Control Repayment Date**") but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Existing Senior Secured HSBC Facility will have the right to require Progroup Paper PM3 GmbH to prepay such lender's participation in the loans together with accrued and unpaid interest and any additional amounts accrued under the finance documents in respect of any such participation in any such loans on the Change of Control Prepayment Date, whereupon the commitment of that lender will be cancelled.

"**Change of Control**", for purposes of the Existing Senior Secured HSBC Facility, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;
- (ii) at any time that a public market exists for the capital stock of the company (or a holding company), the Issuer becoming aware of (i) any "person" or "group" of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder;
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer.

Interest and Fees

The Existing Senior Secured HSBC Facility bears an interest rate per annum equal to EURIBOR plus a margin of 2.5% per annum.

NEW SENIOR SECURED ERSTE BANK FACILITY

On May 31, 2019, the Issuer as company, borrower and guarantor, and the other Guarantors as guarantors entered into a euro-denominated senior secured facility agreement (the "**New Senior Secured Erste Bank Facility**") with Erste Bank Group AG as original lender and agent. The New Senior Secured Erste Bank

Facility provides for a €30,000,000 non-amortizing term loan (the “**Facility**”), which the Issuer may utilize until June 30, 2021.

The dedicated purposes of the borrowings under the New Senior Secured Erste Bank Facility are to finance or refinance investments or costs in connection with the proposed establishment and/or the startup of a corrugated board “mega plant” (PM14) or refinancing of investments or costs in connection with other investment projects of the Group.

Repayments and prepayments

The New Senior Secured Erste Bank Facility has a final maturity date of December 31, 2029.

We will be required to repay our borrowings under the Facility in instalments by repaying on each Facility repayment date an amount which reduces the amount of the outstanding borrowings under the Facility by an amount as set out in the following table:

Facility Repayment Date	Repayment Installment in EUR	Facility Repayment Date	Repayment Installment in EUR
September 30, 2021	937,500	September 30, 2025	937,500
December 31, 2021	937,500	December 31, 2025	937,500
March 31, 2022	937,500	March 31, 2026	937,500
June 30, 2022	937,500	June 30, 2026	937,500
September 30, 2022	937,500	September 30, 2026	937,500
December 31, 2022	937,500	December 31, 2026	937,500
March 31, 2023	937,500	March 31, 2027	937,500
June 30, 2023	937,500	June 30, 2027	937,500
September 30, 2023	937,500	September 30, 2027	937,500
December 31, 2023	937,500	December 31, 2027	937,500
March 31, 2024	937,500	March 31, 2028	937,500
June 30, 2024	937,500	June 30, 2028	937,500
September 30, 2024	937,500	September 30, 2028	937,500
December 31, 2024	937,500	December 31, 2028	937,500
March 31, 2025	937,500	March 30, 2029	937,500
June 30, 2025	937,500	Final Maturity Date	937,500

If the Facility is not utilized in full at the end of the availability period the relevant instalments will be reduced *pro rata*.

The Issuer may voluntarily prepay the whole or any part of any loans made available to it under the New Senior Secured Erste Bank Facility by giving not less than five business days’ notice (or such shorter period as the majority lenders may agree) to the agent (but if in part, being an amount that reduces the amount of the loan by a minimum of €1.0 million or the remainder if the outstanding loan is less than €1.0 million).

In addition to voluntary prepayments, the New Senior Secured Erste Bank Facility requires mandatory cancellation and, if applicable, prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the New Senior Secured Erste Bank Facility. The New Senior Secured Erste Bank Facility also provides for a voluntary cancellation, upon a three business days’ notice, of the whole or any part (being a minimum amount of €1.0 million or the remainder if the commitments are less than €1.0 million) of each available Facility under the New Senior Secured Erste Bank Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under the New Senior Secured Erste Bank Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender’s participation in any loans under the New Senior Secured Erste Bank Facility in the loans and to cancel each lender’s commitment on the date specified in such notice (the “**Change of Control Offer**”) which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the “**Change of Control Repayment Date**”) but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the New Senior Secured Erste Bank Facility will have the right to require the Issuer to prepay such lender’s participation in the loans together with accrued and unpaid interest and any additional amounts accrued under the finance documents in respect of any such

participation in any such loans on the Change of Control Prepayment Date, whereupon the commitment of that lender will be cancelled.

“Change of Control”, for purposes of the New Senior Secured Erste Bank Facility, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;
- (ii) at any time that a public market exists for the capital stock of the company (or a holding company), the Issuer becoming aware of (i) any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder;
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer; or
- (v) the Issuer ceases to hold (directly or indirectly) 100% of the shares in Progroup AG.

Interest and Fees

The New Senior Secured Erste Bank Facility bears an interest rate per annum equal to EURIBOR plus margin. The initial margin in respect of any loan is 1.85 per cent. per annum. Following September 30, 2019 the margin for each loan will be determined by reference to the consolidated net leverage ratio as set out below:

<u>Consolidated Net Leverage Ratio</u>	<u>Margin per cent. per annum</u>
Greater than 3.50:1	2.60
Equal to or less than 3.50:1	1.85

Any such increase or decrease in the margin for a loan shall take effect on the date which is three business days after receipt by the agent of a relevant compliance certificate and if and for so long as the relevant compliance certificate is not delivered in accordance with the relevant provisions of the New Senior Secured Erste Bank Facility, the margin for each loan will be the highest percentage per annum set out above.

We are also required to pay a commitment fee in arrears at the end of each calendar quarter at a rate per annum which is equal to 35 per cent. of the margin on the available commitments from the signing date to the end of the availability period.

NEW SENIOR SECURED LBBW FACILITIES

On May 31, 2019, the Issuer as company, borrower and guarantor, and the other Guarantors as guarantors entered into a euro-denominated senior secured facilities agreement (the **“New Senior Secured LBBW Facilities”**) with Landesbank Baden-Württemberg as agent and original lender. The New Senior Secured Facilities provide for €30,000,000 of total committed credit, including (i) a €15 million term loan facility (**“Facility A”**) and a €15.0 million term loan facility (**“Facility B”**). Facility A is refinanced by funds made available by KfW under a certain KfW program that offers subsidized funding for eligible investments that promote energy efficiency.

The purposes of the borrowings under the New Senior Secured LBBW Facilities is to fund certain eligible investments in connection with the proposed establishment and/or startup of a corrugated board. Borrowings under Facility B may also be used for the financing or refinancing of investments or costs in connection with other investment projects of the Group or the general corporate purposes of the Group.

Repayments and prepayments

The Facility A has a final maturity date of June 30, 2029 and the Facility B has a final maturity date of June 30, 2029.

We will be required to repay our borrowings under the Facility A in instalments by repaying on each Facility A repayment date an amount which reduces the amount of the outstanding borrowings under the Facility A by an amount as set out in the following table:

Facility A Repayment Date	Repayment Installment in EUR	Facility A Repayment Date	Repayment Installment in EUR
September 30, 2021	468,750	September 30, 2025	468,750
December 30, 2021	468,750	December 30, 2025	468,750
March 31, 2022	468,750	March 31, 2026	468,750
June 30, 2022	468,750	June 30, 2026	468,750
September 30, 2022	468,750	September 30, 2026	468,750
December 30, 2022	468,750	December 30, 2026	468,750
March 31, 2023	468,750	March 31, 2027	468,750
June 30, 2023	468,750	June 30, 2027	468,750
September 30, 2023	468,750	September 30, 2027	468,750
December 30, 2023	468,750	December 30, 2027	468,750
March 31, 2024	468,750	March 31, 2028	468,750
June 30, 2024	468,750	June 30, 2028	468,750
September 30, 2024	468,750	September 30, 2028	468,750
December 30, 2024	468,750	December 30, 2028	468,750
March 31, 2025	468,750	March 31, 2029	468,750
June 30, 2025	468,750	June 30, 2029	468,750

We will be required to repay any borrowings under the Facility B in instalments by repaying on each Facility B repayment date an amount which reduces the amount of the outstanding borrowings under the Facility B by an amount as set out in the following table:

Facility B Repayment Date	Repayment Installment in EUR	Facility B Repayment Date	Repayment Installment in EUR
September 30, 2021	468,750	September 30, 2025	468,750
December 30, 2021	468,750	December 30, 2025	468,750
March 31, 2022	468,750	March 31, 2026	468,750
June 30, 2022	468,750	June 30, 2026	468,750
September 30, 2022	468,750	September 30, 2026	468,750
December 30, 2022	468,750	December 30, 2026	468,750
March 31, 2023	468,750	March 31, 2027	468,750
June 30, 2023	468,750	June 30, 2027	468,750
September 30, 2023	468,750	September 30, 2027	468,750
December 30, 2023	468,750	December 30, 2027	468,750
March 31, 2024	468,750	March 31, 2028	468,750
June 30, 2024	468,750	June 30, 2028	468,750
September 30, 2024	468,750	September 30, 2028	468,750
December 30, 2024	468,750	December 30, 2028	468,750
March 31, 2025	468,750	March 31, 2029	468,750
June 30, 2025	468,750	June 30, 2029	468,750

If a Facility is not utilized in full at the end of its availability period or any loans are repaid or prepaid, the repayment instalments will, subject to the consent of KfW in case of the Facility A, be reduced *pro rata*. Should, in the case of Facility A, KfW withhold such consent, any unutilized amounts will be deducted from the relevant repayment instalments of the relevant facility in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date. In this case, the final maturity

date of the relevant facility will be deemed to be the last repayment date on which a repayment instalment (or any part of it) remains to be made.

Subject to the payment of break costs, we may voluntarily prepay the whole or any part of the loan outstanding under the New Senior Secured LBBW Facilities by giving not less than ten business days' notice (or such shorter period as the majority lenders may agree) (and provided that KfW has consented to any such a voluntary prepayment of any Facility A Loans) to the agent (but if in part, being an amount that reduces the amount of the loan by a minimum of €1 million or the remainder if the outstanding loan is less than €1 million).

In addition to voluntary prepayments, the New Senior Secured LBBW Facilities require mandatory cancellation and, if applicable prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the New Senior Secured LBBW Facilities.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under the New Senior Secured LBBW Facilities describing the transaction or transactions that constituted the Change of Control and offer to repay each lender's participation in any loans and to cancel each Lender's Commitment under the New Senior Secured LBBW Facilities in the loans on the date specified in such notice (the "**Change of Control Offer**") which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the "**Change of Control Repayment Date**") but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the New Senior Secured LBBW Facilities will have the right to require us to repay such lender's participation in any loans together with break costs determined by each lender in accordance with applicable law and jurisprudence, at least in an amount requested from such lender by KfW, plus, in each case, accrued and unpaid interest, and any additional amounts accrued under the finance documents, whereupon the Commitments of the Lender will be canceled in respect of an such participation in any such loans on the Change of Control Repayment Date.

"**Change of Control**", for purposes of the New Senior Secured LBBW Facilities, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;
- (ii) at any time that a public market exists for the capital stock of the company (or a holding company), the Issuer becoming aware of (i) any "person" or "group" of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder; or
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer.

Interest and Fees

All borrowings under the Facility A will bear interest at a fixed rate of 2.00% per annum and all borrowings under the Facility B will bear interest at a fixed rate of 2.05% per annum.

We are also required to pay a commitment fee in arrears on each March 31, June 30, September 30 and December 30 (i) in relation to the Facility A, at a rate of 0.25% per month on the available commitments in relation to Facility A for the period starting on November, 28, 2019; (ii) and in relation to Facility B, at a

rate of 0.55 per cent. per annum on the available commitments in relation to Facility B for the period starting on the date falling two months after the date of the agreement.

Covenants

In addition to customary information and general loan style covenants and restrictive covenants that closely track those contained in the Conditions of Issue of the Notes, the New Senior Secured LBBW Facilities require us to submit to KfW, via the agent under the New Senior Secured LBBW Facilities, certain use of funds certificates (*Verwendungsnachweise*), providing evidence that we have made use of the funds borrowed under the Facility A in accordance with the specified purpose described above and relevant KfW program rules.

Application of KfW General Terms and Condition; KfW Events of Default

In addition to the terms set forth in the New Senior Secured LBBW Facilities, our relationship with the lenders under the New Senior Secured LBBW Facilities is in case of Facility A also governed by the general terms and conditions of KfW, which are incorporated into the New Senior Secured LBBW Facilities by reference. In case of any conflict between the provisions of the New Senior Secured LBBW Facilities and the general terms and conditions of KfW, the provisions of the general terms and conditions of KfW will prevail in relation to Facility A. In particular, in addition to the customary events of the default contained in the New Senior Secured LBBW Facilities as described under “*Overview*” above, the general terms and conditions of KfW also contain certain bespoke termination rights related to the quasi-governmental nature of the subsidized funding provided by KfW, through Landesbank Baden-Württemberg, under the New Senior Secured LBBW Facilities.

NEW SENIOR SECURED SAARLB FACILITY

On May 31, 2019, the Issuer as company, borrower and guarantor, and the other Guarantors as guarantors entered into a euro-denominated senior secured facility agreement (the “**New Senior Secured SaarLB Facility**”) with Landesbank Saar as agent and original lender. The New Senior Secured SaarLB Facility provides for €15,000,000 of total committed credit (the “**Facility**”). The Facility is refinanced by funds made available by KfW under a certain KfW program that offers subsidized funding for eligible investments that promote energy efficiency. The Issuer may utilize the Facility until May 27, 2020. The purpose of the borrowings under the New Senior Secured SaarLB Facility is to partially fund certain eligible investments in connection with the proposed establishment of a new corrugated board “mega plant” (PW 14).

Repayments and prepayments

The Facility has a final maturity date of June 30, 2029.

We will be required to repay our borrowings under the Facility in instalments by repaying on each repayment date an amount which reduces the amount of the outstanding borrowings by an amount as set out in the following table:

Facility Repayment Date	Repayment Installment in EUR	Facility Repayment Date	Repayment Installment in EUR
September 30, 2021	468,750	September 30, 2025	468,750
December 30, 2021	468,750	December 30, 2025	468,750
March 31, 2022	468,750	March 31, 2026	468,750
June 30, 2022	468,750	June 30, 2026	468,750
September 30, 2022	468,750	September 30, 2026	468,750
December 30, 2022	468,750	December 31, 2026	468,750
March 31, 2023	468,750	March 31, 2027	468,750
June 30, 2023	468,750	June 30, 2027	468,750
September 30, 2023	468,750	September 30, 2027	468,750
December 30, 2023	468,750	December 31, 2027	468,750
March 31, 2024	468,750	March 31, 2028	468,750
June 30, 2024	468,750	June 30, 2028	468,750
September 30, 2024	468,750	September 30, 2028	468,750
December 30, 2024	468,750	December 31, 2028	468,750
March 31, 2025	468,750	March 31, 2029	468,750
June 30, 2025	468,750	June 30, 2029	468,750

If the Facility is not utilized in full at the end of the availability period the repayment instalments will, subject to the consent of KfW and Saarländische Investitionskreditbank Aktiengesellschaft (the “**SIKB**”), be reduced *pro rata*. Should KfW and/or SIKB withhold such consent, any unutilized amounts will be deducted from the repayment instalments in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date. In this case, the final maturity date will be deemed to be the last repayment date on which a repayment instalment (or any part of it) remains to be made.

Subject to the payment of break costs, we may voluntarily prepay the whole or any part of any loan outstanding under the New Senior Secured SaarLB Facility by giving ten business days’ prior notice to the agent (but if in part, being an amount that reduces the amount of such loan by a minimum amount of EUR 1 million or the remainder).

In addition to voluntary prepayments, the New Senior Secured SaarLB Facility requires mandatory cancellation and, if applicable prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the New Senior Secured SaarLB Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Issuer shall give notice to the agent under the New Senior Secured SaarLB Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender’s participation in any loans and to cancel each Lender’s Commitment under the New Senior Secured SaarLB Facility in the loans on the date specified in such notice (the “**Change of Control Offer**”) which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the “**Change of Control Repayment Date**”) but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the New Senior Secured SaarLB Facility will have the right to require us to repay such lender’s participation in any loans together with break costs determined by each lender in accordance with applicable law and jurisprudence, at least in an amount requested from such lender by KfW, plus, in each case, accrued and unpaid interest, and any additional amounts accrued under the finance documents in respect of any such participation in any such loans on the Change of Control Repayment Date, whereupon the commitments of that Lender will be cancelled.

“**Change of Control**”, for purposes of the New Senior Secured SaarLB Facility, means the occurrence of the following:

- (i) for as long as no public market exists for the capital stock of the Issuer (or a holding company), the Issuer becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares;

- (ii) at any time that a public market exists for the capital stock of the company (or a holding company), the Issuer becoming aware of (i) any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder; or
- (iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Issuer.

Interest and Fees

All borrowings under the Facility bear interest at a fixed rate of 2.00% per annum.

We are also required to pay a commitment fee in arrears on each March 31, June 30, September 30 and December 30 at a rate of 0.25% per month with regard to any available but unused commitments in relation to the Facility during the period starting on November, 27, 2019, until the last day of the availability period.

Covenants

In addition to customary information and general loan style covenants and restrictive covenants that closely track those contained in the Conditions of Issue of the Notes, the New Senior Secured SaarLB Facility requires us to submit to KfW, via the agent under the New Senior Secured SaarLB Facility, certain use of funds certificates (*Verwendungsnachweise*), providing evidence that we have made use of the funds borrowed under the Facility, as applicable, in accordance with the specified purpose described above and relevant KfW program rules.

Application of KfW General Terms and Condition; KfW Events of Default

In addition to the terms set forth in the New Senior Secured SaarLB Facility, our relationship with the lenders under the New Senior Secured SaarLB Facility is also governed by the general terms and conditions of KfW, which are incorporated into the New Senior Secured SaarLB Facility by reference. In case of any conflict between the provisions of the New Senior Secured SaarLB Facility and the general terms and conditions of KfW, the provisions of the general terms and conditions of KfW will prevail. In particular, in addition to the customary events of the default contained in the New Senior Secured SaarLB Facility as described under “*Overview*” above, the general terms and conditions of KfW also contain certain bespoke termination rights related to the quasi-governmental nature of the subsidized funding provided by KfW, through Landesbank Saar, under the New Senior Secured SaarLB Facility.

INTERCREDITOR AGREEMENT

In connection with the 2015 Refinancing, the Issuer, the then-existing Guarantors, JH-Holding, the holders’ representative for our then-outstanding senior secured notes, the Security Agent, the agent and the lenders under the Super Senior Revolving Credit Facility and others entered into an intercreditor agreement (as amended and/or restated from time to time, the “**Intercreditor Agreement**”) to govern the relationships and relative priorities among (i) the creditors under the Super Senior Revolving Credit Facility; (ii) the holders of our then-outstanding senior secured notes; (iii) future hedge counterparties under certain hedging agreements (the “**Hedge Counterparties**”); (iv) future cash management providers, (v) certain future creditors of the Group that may accede to the Intercreditor Agreement from time to time, including the holders of the Floating Rates Notes and the Existing Notes, the lenders under the Senior Secured Facilities and the holders of the Additional Notes; (vi) certain intra group creditors and debtors; (vii) various creditor representatives; and (viii) the Security Agent. All Guarantors that were not

an original party to the Intercreditor Agreement have subsequently acceded to the Intercreditor Agreement.

The Issuer, the Guarantors and each of their subsidiaries that incur any liability or provides any guarantee or security under the Super Senior Revolving Credit Facility, the Floating Rate Notes, the Existing Notes or the Senior Secured Facilities and related documents or any Pari Passu Debt Documents are together referred to in this description as “**Debtors**”.

The Intercreditor Agreement provides for accession by certain additional Pari Passu Debt Creditors (as defined below) and/or their representatives. The agents under all Senior Secured Facilities we entered into after the original signing date of the Intercreditor Agreement, on behalf of themselves and on behalf of the lenders under such Senior Secured Facilities, and Deloitte GmbH Wirtschaftsprüfungsgesellschaft, as holders’ representative on behalf of the holders of the Floating Rate Notes and the Existing Notes, have entered into creditor/creditor representative accession agreements with regard to the relevant Senior Secured Facilities, the Floating Rate Notes and the Existing Notes, respectively, as contemplated by the Intercreditor Agreement. We expect that the agents and original lenders under the New Senior Secured Facilities will accede to the Intercreditor Agreement on or around the issue date of the Additional Notes. The Additional Notes will constitute Additional Indebtedness (as defined below) for purposes of the Intercreditor Agreement and will therefore be permitted to share in the transaction security that secures (or will secure, as applicable) the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the New Senior Secured Facilities and any other Pari Passu Debt. As a result, holders of the Additional Notes will have equivalent rights to the holders of the Existing Notes and the lenders under the Senior Secured Facilities under the Intercreditor Agreement and may vote in the same class of creditors as the holders of the Existing Notes and the lenders under the Senior Secured Facilities in respect of enforcement.

On May 2, 2018, we entered into an amendment and restatement agreement relating to the Intercreditor Agreement. In addition to various technical amendments, we amended and restated the definition of “Credit Facility” and related terms in the Intercreditor Agreement to include, in addition to the Super Senior Revolving Credit Facility, certain credit facilities which are permitted by the terms of the Pari Passu Debt Documents (as defined in the Intercreditor Agreement) to share pari passu in the Collateral with the rights and obligation of Credit Facility Lenders (as defined in the Intercreditor Agreement) as provided for in the Intercreditor Agreement, and in respect of which the creditors, facility agent, and arrangers have acceded as Credit Facility Lenders, Credit Facility Agent or Credit Facility Creditors (as the case may be, and each as defined in the Intercreditor Agreement) and which are permitted to receive priority to the Pari Passu Debt Liabilities (as defined below) with respect to the proceeds of any enforcement of the Collateral (such credit facilities, together with the Super Senior Revolving Credit Facility, together the “**Credit Facilities**” and each a “**Credit Facility**”). As a result, the total amount of Indebtedness under a Credit Facility that may be secured by Liens on a super priority basis increased from up to €50 million to up to €80 million. In addition, we amended and restated the Intercreditor Agreement to increase the Priority Hedging Limit (as defined in the Intercreditor Agreement from up to €35 million to up to €80 million. The following description of certain provisions of the Intercreditor Agreement summarizes the relevant provisions of the Intercreditor Agreement as so amended and restated. It assumes that the agents and lenders under the New Senior Secured Facilities have acceded to the Intercreditor Agreement. It does not restate the Intercreditor Agreement in its entirety nor does it describe provisions relating to the rights and obligations of holders of other classes of our debt. As such, we urge you to read the Intercreditor Agreement because it, and not the discussion that follows, defines the rights of the holders of the Additional Notes.

General

The Intercreditor Agreement, among other things, sets out:

- the relative ranking of certain indebtedness of the Debtors;
- when payments can be made in respect of certain indebtedness of the Debtors;
- when enforcement actions can be taken in respect of that indebtedness;
- the terms pursuant to which that indebtedness will be subordinated upon the occurrence of certain insolvency events;
- when enforcement actions can be taken in respect of the transaction security;

- turnover provisions; and
- when the transaction security and guarantees will be released to permit a sale of the collateral.

The Intercreditor Agreement contains provisions relating to indebtedness incurred by the Debtors that is permitted by the terms of the Super Senior Revolving Credit Facility, the Existing Notes and the Senior Secured Facilities, which ranks *pari passu* to the Existing Notes and the Senior Secured Facilities and is secured by the Collateral (the “**Pari Passu Debt**”, the liabilities of the Debtors in respect thereof, the “**Pari Passu Debt Liabilities**”, the creditors thereof, the “**Pari Passu Debt Creditors**” and all documents or instruments entered into between any Debtors and a Pari Passu Debt Creditor setting out the terms of any credit facility, notes, indenture or debt security which creates or evidences and Pari Passu Debt Liabilities, the “**Pari Passu Debt Documents**”), subject to the terms of the Intercreditor Agreement. The Intercreditor Agreement allows for a refinancing in full or in part of the Existing Notes, the Senior Secured Facilities and the Super Senior Revolving Credit Facility as Additional Indebtedness (as defined below).

Ranking and Priority

The Intercreditor Agreement provides, subject to the provisions regarding permitted payments, that the right and priority of payment of all present and future liabilities and obligations under the Credit Facilities (including all present and future liabilities and obligations under the Super Senior Revolving Credit Facility, the “**Credit Facility Liabilities**”), the hedging agreements entered into by the Hedge Counterparties (the “**Hedging Liabilities**”), the Floating Rate Notes, the Existing Notes and the Additional Notes (the “**Notes Liabilities**”), certain liabilities owed by any member of the Restricted Group (as defined in the Intercreditor Agreement) in respect of cash management and treasury services provided by a cash management provider which has become a party to the Intercreditor Agreement (a “**Cash Management Provider**” and the liabilities owed to such Cash Management Providers, the “**Cash Management Liabilities**”), all present and future liabilities and obligations under the Senior Secured Facilities (the “**Existing Senior Secured Facility Liabilities**”) and certain other liabilities will rank in right and priority of payment in the following order:

- first, the Credit Facility Liabilities, the Hedging Liabilities, the Notes Liabilities, the Existing Senior Secured Facility Liabilities, any other Pari Passu Debt Liabilities, the Cash Management Liabilities, the creditor representative liabilities and the liabilities owed to the Security Agent and *pari passu* and without any preference between them; and
- second, certain intercompany obligations of the Debtors to the Issuer and its subsidiaries (the “**Intra-Group Liabilities**”) and liabilities owed by any Debtor to the Parent and possibly other structural creditors (the “**Structural Liabilities**” and together with the Intercompany Debt, the “**Subordinated Liabilities**”).

The Intercreditor Agreement does not purport to rank the Subordinated Liabilities among themselves.

Transaction Security

The creditors under the Credit Facilities (including the creditors under the Super Senior Revolving Credit Facility, the “**Credit Facilities Creditors**”), the Hedge Counterparties, the holders of the Existing Notes, the creditors under the Senior Secured Facilities, any other Pari Passu Debt Creditors, the Cash Management Providers, the creditor representatives and the Security Agent (together, the “**Secured Parties**”) benefit from the transaction security (which, for the purposes of the Intercreditor Agreement, includes a guarantee granted by the Parent recourse under which shall be limited to the value of the enforcement proceeds of the security provided are shares of the Issuer and are pledged by the Parent). Subject to the order of application of proceeds (see “*Application of Proceeds*” below), the transaction security shall rank and secure the Credit Facility Liabilities, the Hedging Liabilities, the Notes Liabilities, the Pari Passu Debt Liabilities, the Cash Management Liabilities, the creditor representative liabilities and the liabilities owed to the Security Agent *pari passu* and without preference between them. Neither Ancillary Lenders nor Hedge Counterparties nor Cash Management Providers may take the benefit of any guarantee or security from members of the Group (other than customary security for ancillary lenders and hedge counterparties) unless such guarantee or security is also offered (to the extent legally possible) for the benefit of the other Secured Parties. In addition, the Intercreditor Agreement provides that the guarantees and transaction security will be released in certain circumstances described further below in “—Release of Security—Non distressed Disposals” and “—Release of Security and Guarantees—Distressed Disposals”.

Permitted Payments

The Intercreditor Agreement permits payments to be made by the Debtors under the Super Senior Revolving Credit Facility, the Floating Rate Notes, the Existing Notes, the Senior Secured Facilities, the Additional Notes and any other Pari Passu Debt Documents (provided such payments are permitted under those documents). The Intercreditor Agreement also permits payments to creditors of Intra-Group Liabilities, provided that there has been no acceleration event in respect of the Credit Facilities (including the Super Senior Revolving Credit Facility), the Senior Secured Facilities, the Floating Rate Notes, the Existing Notes, the Additional Notes or any other Pari Passu Debt (subject to exceptions). No payments may be made in respect of Structural Liabilities except as permitted by the Credit Facilities (including the Super Senior Revolving Credit Facility), the Senior Secured Facilities, the Existing Notes Documents, the Conditions of Issue and any other Pari Passu Debt Documents or if the required majority of each class of debt has consented. There are also restrictions on payments to Hedge Counterparties subject to except certain specified permitted payments.

Limitations on Enforcement

For the purposes of enforcement, the Credit Facility Creditors (including the creditors under the Super Senior Revolving Credit Facility), any Hedge Counterparty to the extent of their Priority Hedging Liabilities and the Cash Management Providers are referred to as the “**Super Senior Creditors**”. Hedging Liabilities may be designated as Priority Hedging Liabilities if they are in relation to foreign currency hedging and/or interest rate hedging and the designated mark-to-market amount in respect of those Hedging Liabilities does not exceed an aggregate amount of €80,000,000 (the “**Priority Hedging Limit**”).

If the transaction security has become enforceable and any of the Super Senior Creditors, the holders of the Floating Rate Notes, the Existing Notes or the Additional Notes (acting through the relevant holders’ representative), the creditors under the Senior Secured Facilities or any other Pari Passu Debt Creditors wish to enforce the transaction security, either (a) the Majority Super Senior Creditors or (b) the Majority Pari Passu Creditors must give notice of the proposed instructions as to enforcement (the “**Shared Security Notice**”) to the creditor representatives for the other creditor classes and the Security Agent. The giving of this notice triggers a 30 day consultation period during which time the creditor representatives for each of the creditor classes must discuss the proposals in good faith with a view to formulating joint enforcement. During the consultation period, but subject to certain exceptions, the Secured Parties may not accelerate their respective Liabilities owed to them under the Debt Documents nor closeout any hedging transactions.

The “**Majority Super Senior Creditors**” means those Super Senior Creditors whose participations in the Credit Facility Liabilities, terminated Priority Hedging Liabilities and Cash Management Liabilities exceed 66⅔ per cent. Of the aggregate participations in the Credit Facility Liabilities, Priority Hedging Liabilities and Cash Management Liabilities. The “**Majority Pari Passu Creditors**” means a simple majority of the aggregate of (i) the outstanding principal amount of a combined class of holders of the Pari Passu Debt Creditors (including holders of the Floating Rate Notes, the Existing Notes and the Additional Notes and the creditors under the Senior Secured Credit Facilities) and (ii) the outstanding amount owed by any Debtor to the non-priority hedge counterparties.

A creditor representative is not obliged to consult as described above (or shall only be obliged to consult for a shorter period) if:

- an insolvency event has occurred and is continuing in relation to a Debtor;
- an event of default is continuing in relation to liabilities owed to the relevant creditor group and that creditor group (acting in good faith) determines, and notifies the creditor representatives, that to do so and thereby delay enforcement could reasonably be expected to have a material adverse effect on (A) the Security Agent’s ability to enforce any of the transaction security; or (B) the realization proceeds available to that creditor group of any enforcement of the transaction security in any material respect; or
- the creditor representatives so agree.

Conflicting Enforcement Instructions

At the end of the consultation period, the Security Agent shall act on the instructions of the Instructing Group. If the Security Agent does not receive any instructions from the Instructing Group as to

enforcement following the consultation period, the Security Agent shall take no action. The Instructing Group consists of (i) the Majority Super Senior Creditors and (ii) the Majority Pari Passu Creditors, in each case acting through their creditor representatives. If there are conflicting enforcement instructions given to the Security Agent by the different classes of creditors who can constitute the Instructing Group (or if a creditor representative of a class of creditors fails to give instructions), then provided that the Majority Pari Passu Creditors have complied with the consultation obligations in the Intercreditor Agreement and those instructions are consistent with the security enforcement principles (see further below), the instructions as to enforcement from the Majority Pari Passu Creditors will prevail over those of the Majority Super Senior Creditors and the Majority Pari Passu Creditors will constitute the Instructing Group.

If (a) the Security Agent has not taken any enforcement action within 3 months of the date of the first shared security notice was issued; (b) the Super Senior Creditors have not been repaid in full in cash within 6 months of the date the first Shared Security Notice was issued; or (c) an insolvency event occurs in respect of a Debtor and the Security Agent has not commenced enforcement, any enforcement instructions given by the Majority Super Senior Creditors will then prevail, provided that they are consistent with the security enforcement principles.

Any enforcement instructions given must comply with certain security enforcement principles which include:

- achieving the security enforcement objective, which is to maximize, so far as is consistent with the prompt and expeditious realization of value from enforcement of the transaction security, the recoveries of all Secured Parties;
- all enforcement proceeds will be received in cash by the Security Agent or sufficient enforcement proceeds will be received in cash by the Security Agent to ensure that after distribution in accordance with the Intercreditor Agreement, the Credit Facility Liabilities, Priority Hedging Liabilities and Cash Management Liabilities will be repaid and discharged in full;
- all enforcement action must be prompt and expeditious and reasonably expected to realize proceeds from enforcement within six months of receipt by the Security Agent of initial enforcement instructions;
- to the extent that the enforcement is over transaction security with an aggregate book value exceeding €5,000,000 (or its equivalent) or over all of the shares in a member of the restricted group which are secured, the Security Agent shall obtain an opinion from a “big four” accounting firm, a recognized independent investment bank or other reputable independent third party professional firm that is regularly engaged in providing valuations of the relevant type and size of assets, as to whether the amount received in connection with such enforcement is fair from a financial point of view taking into account all relevant circumstances (the “**Financial Advisor Opinion**”);
- the Financial Advisor Opinion will be conclusive evidence that the security enforcement objective and the security enforcement principles have been met; and
- if the enforcement is by way of public auction, no Financial Advisor Opinion is required.

Turnover

Subject to certain exclusions, if any Credit Facility Creditor, Pari Passu Debt Creditor, Hedge Counterparty (or any of their respective creditor representatives), a Cash Management Provider or the Holders’ Representative receives or recovers the proceeds of any enforcement of any transaction security, except in accordance with “—*Application of Proceeds*” below, that person must:

- in relation to amounts not received or recovered by way of set off, hold that amount (net of third party costs and taxes) on trust for the Security Agent and promptly pay an amount equal to that amount (net of third party costs and taxes) to the Security Agent for application in accordance with the terms of the Intercreditor Agreement; and
- in relation to receipts and recoveries received or recovered by way of set off, promptly pay an amount equal to that recovery (net of third party costs and taxes) to the Security Agent for application in accordance with the terms of the Intercreditor Agreement.

There is also a general turnover obligation on the subordinated creditors to turnover to the Security Agent all amounts which are not permitted payments made in accordance with the Intercreditor Agreement.

Application of Proceeds

All amounts from time to time received or recovered by the Security Agent as Enforcement Proceeds (as defined under the Intercreditor Agreement) or otherwise paid to the Security Agent for application in accordance with the provisions described under this paragraph shall be held on trust by the Security Agent and applied at any time as the Security Agent (in its discretion) sees fit, to the extent permitted by law, in the following order:

- first, in discharging any sums owing to the Security Agent, any receiver or any delegate;
- second, *pari passu* and *pro rata*, to each creditor representative, including all costs and expenses incurred in connection with any enforcement;
- third, *pari passu* and *pro rata*, in payment to the creditor representative of the Lenders for application towards the discharge of the Credit Facility Liabilities (including liabilities under the Super Senior Revolving Credit Facility), to the arrangers of any Credit Facilities, the Hedge Counterparties in respect of their Priority Hedging Liabilities and the Cash Management Providers;
- fourth, *pari passu* and *pro rata*, in payment to (i) the respective paying agent on behalf of the holders of the Notes for application towards the discharge of the Notes Liabilities in accordance with the Notes Documents; (ii) the creditor representatives of the other *Pari Passu* Debt Creditors for application towards the discharge of the other *Pari Passu* Debt; and (iii) the Hedge Counterparties for application towards the discharge of the non priority hedging obligations;
- fifth, in payment to any person the Security Agent is obliged to pay in priority to any Debtor; and
- sixth, in payment of the surplus (if any) to the relevant Debtor.

Option to Purchase

Any *Pari Passu* Debt Creditors (including the holders of the Existing Notes and the Notes and the creditors under the Existing Senior Secured Facilities) may, after an Acceleration Event or an enforcement, and subject to various conditions set out in the Intercreditor Agreement (including the grant of an acceptable indemnity against clawback to the relevant lenders / creditors), exercise an option to purchase in full and in cash the Credit Facility Liabilities, any *Pari Passu* Liabilities incurred to refinance the Credit Facility Liabilities in full, any Priority Hedging Liabilities and any Cash Management Liabilities, at par.

Release of Security—Non Distressed Disposals

In circumstances where (i) a disposal is not a distressed disposal (*i.e.*, a disposal to a person or persons outside the Group of an asset by a Debtor which is subject to the transaction security or a disposal of the shares in the capital of any holding company of a Debtor which is permitted by the terms of any Credit Facility, the conditions of issue of the Floating Rate Notes and Existing Notes, the Conditions of Issue, the Senior Secured Facilities and any other *Pari Passu* Debt Documents) or (ii) any transaction pursuant to which security shall be granted over any asset which is subject to transaction security to a person which is not a secured creditor and a corresponding release of transaction security is permitted under the terms of any Credit Facility, the conditions of issue of the Floating Rate Notes and Existing Notes, the Conditions of Issue, the Senior Secured Facilities and any other *Pari Passu* Debt Documents, the Intercreditor Agreement provides that the Security Agent is irrevocably authorized and instructed to deliver:

- any release of the transaction security and any other claim over that asset;
- where that asset consists of shares in the capital of a Debtor, any release of the transaction security and any other claim over that Debtor's property and/or the shares in, and property of, any of its subsidiaries; and
- issue any certificates of non-crystallization of any floating charge or any consent to dealing that may, in the discretion of the Security Agent, be considered necessary or desirable.

Release of Security—Unrestricted Subsidiaries

If a member of the Group is designated as an Unrestricted Subsidiary in accordance with the terms of each of the Credit Facilities, the conditions of issue of the Floating Rate Notes and Existing Notes, the Conditions of Issue, the Senior Secured Facilities and any other *Pari Passu* Debt Documents, the Security

Agent is irrevocably authorized and obliged (at the cost of the relevant debtor and the Issuer and without any consent, sanction, authority or further confirmation from any creditor or debtor):

- to release the transaction security or any other claim (relating to a debt document) over that member of the Group's assets; and
- to execute and deliver or enter into any release of the transaction security or any claim described in the paragraph above and issue any certificates of non-crystallization of any floating charge or any consent to dealing that may, in the discretion of the Security Agent, be considered necessary or desirable or as requested by the Issuer.

Release of Security and Guarantees—Distressed Disposals

In circumstances where a distressed disposal is being effected, the Intercreditor Agreement will provide that the Security Agent is irrevocably authorized and instructed:

- to release the transaction security or any other claim over the relevant asset and execute and deliver or enter into any release of that transaction security, or claim and issue any letters of non-crystallization of any floating charge or any consent to dealing that may, in the discretion of the Security Agent, be considered necessary or desirable;
- if the asset that is disposed of consists of shares in the capital of a Debtor, to release (i) that Debtor and any subsidiary of that Debtor from all or any part of its borrowing liabilities, guarantee liabilities and certain other liabilities; (ii) any transaction security granted over that Debtor's assets and the assets of any of its subsidiaries; and (iii) any other claim of a Debtor or intra Group lender over that Debtor's assets or over the assets of any subsidiary of that Debtor;
- if the asset that is disposed of consists of shares in the capital of any holding company of a Debtor, to release (i) that holding company and any subsidiary of that holding company from all or any part of its borrowing liabilities, guarantee liabilities and certain other liabilities; (ii) any transaction security granted by that holding company or any subsidiary of that holding company over any of its assets; and (iii) any other claim of a Debtor or intra Group lender over the assets of any holding company or any subsidiary of that holding company;
- if the asset which is disposed of consists of shares in the capital of a Debtor or any holding company of a Debtor, to dispose of all or any part of that Debtor's or the holding company that Debtor's borrowing liabilities, guarantee liabilities, certain other liabilities, and other intra Group receivables; and
- if the asset which is disposed of consists of shares in the capital of a Debtor or any holding company of a Debtor, to transfer Intra Group Liabilities and debtor liabilities owed by that Debtor or holding company of a Debtor to another Debtor.

Any net proceeds of the disposal must be applied in accordance with the enforcement proceeds waterfall described under “—*Application of Proceeds*”.

Amendment

The Intercreditor Agreement may only be amended with the consent of the Majority Super Senior Creditors, the required percentage of Pari Passu Debt Creditors (as set out in the relevant Pari Passu Debt Documents), or the written consent of the creditor representative of the Pari Passu Debt Creditors (acting in accordance with the terms of the relevant Pari Passu Debt Documents), the Issuer and the Security Agent unless it relates to certain specified matters such as ranking, priority, turnover, redistribution, enforcement, disposal proceeds, application of enforcement proceeds and security enforcement principles. Such amendments require consent from all Super Senior Creditors, the holders of the Floating Rate Notes, the Existing Notes and the Additional Notes (acting through the relevant holders' representative and in accordance with the relevant conditions of issue), the other Pari Passu Debt Creditors (including the lenders under the Senior Secured Facilities), and each Hedge Counterparty (to the extent such amendments adversely affect it), each Cash Management Provider (to the extent such amendment adversely affects it) and the Security Agent; provided that where an amendment or waiver only relates to the ranking order of priority or subordination or, or application of proceeds of enforcement to creditors ranking after any other group of creditors, the consent of such other group of creditors shall not be required.

No amendment or waiver of the Intercreditor Agreement may impose new or additional obligations on or withdraw or reduce the rights of any party (other than in a way which affects creditors of that party's class generally) to the Intercreditor Agreement without the prior consent of that party or in the case of a Debtor, to the extent consented to by the Issuer.

The Intercreditor Agreement may be amended without the consent of the holders of the Notes in certain circumstances. For more information, see *"Description of the Notes—Covenants—Amendment and Restatement of Intercreditor Agreement; Additional Intercreditor Agreements"*.

To the extent the Debtors wish to enter into additional Pari Passu Debt or other additional or replacement indebtedness ("**Additional Indebtedness**") which is permitted to share in the transaction security pursuant to any Credit Facility, the conditions of issue of the Floating Rate Notes and Existing Notes, the Conditions of Issue and any other Pari Passu Debt Documents, then the parties to the Intercreditor Agreement may be required to enter into a replacement intercreditor agreement on substantially the same terms as the Intercreditor Agreement.

The Intercreditor Agreement also permits the Security Agent (subject to the terms of any Credit Facility) to enter into new or supplemental security and/or release and retake transaction security if certain conditions are met.

Governing law

The Intercreditor Agreement and any non-contractual obligations arising out of or in connection with it are governed by and construed and enforced in accordance with German law.

EXISTING NOTES

On March 27, 2018, the Issuer issued €450,000,000 aggregate principal amount of its 3.000% senior secured notes due 2026 (the "**Existing Notes**"). The Existing Notes are issued under the Conditions of Issue pursuant to German law. The Additional Notes will constitute an increase (*Aufstockung*), will have the same terms as the Existing Notes in all respects and be consolidated with and form a single series (*Gesamtemission*) with the Existing Notes for all purposes, including without limitation, waivers, amendments, redemptions and offers to purchase. For a description of the terms of the Additional Notes, see *"Description of the Notes"* below.

OTHER FINANCING ARRANGEMENTS

Forfaiting Program

Our subsidiary Progroup Board GmbH finances a portion of its trade receivables through an off balance sheet forfaiting program with CommerzFactoring GmbH. Under the forfaiting program it sells trade receivables to CommerzFactoring GmbH on a non recourse basis in return for immediate cash payments. The forfaiting transactions occur up to a maximum aggregate transaction volume of €15 million. As of March 31, 2019, no trade receivables were sold under the forfaiting program.

DESCRIPTION OF THE NOTES

Progroup AG, a stock corporation (*Aktiengesellschaft*) organized under German law (the “**Issuer**”) will issue €150,000,000 aggregate principal amount of euro-denominated 3.000% additional senior secured notes due 2026 (the “**Additional Notes**”) in accordance with the conditions of issue governing the Notes dated the Issue Date. The Additional Notes will be issued as “Additional Notes” under the conditions of issue (the “Conditions of Issue”), pursuant to which the Issuer issued, on March 27, 2018 (the “**Issue Date**”), €450,000,000 aggregate principal amount of its 3.000% senior secured fixed rate notes due 2026 (the “**Existing Notes**” and, together with the Additional Notes, the “**Notes**”). The Additional Notes will constitute an increase (*Aufstockung*) of the Existing Notes and will have the same terms as the Existing Notes in all respects and will be consolidated with and form a single series (*Gesamtemission*) with the Existing Notes for all purposes, including, without limitation, waivers, amendments, redemptions and offers to purchase. In this “*Description of the Notes*”, the term “**Issuer**” refers to Progroup AG only and not to any of its Subsidiaries.

The following describes the material provisions of the Notes, the Conditions of Issue, the Guarantee Agreement, the Security Documents and refers to the Intercreditor Agreement and is subject, and is qualified in its entirety by reference, to all of the provisions of the Notes, the Conditions of Issue, the Security Documents and the Intercreditor Agreement. We urge you to read the Conditions of Issue, the Notes, the Guarantee Agreement, the Security Documents and the Intercreditor Agreement because they, and not this description, define your rights as holders of the Notes. Copies of the Conditions of Issue, the Notes, the Guarantee Agreement, the Security Documents and the Intercreditor Agreement are available as set forth under “*Available Information*”. You can find the definitions of certain terms used in this description under the subheading “*—Certain Definitions*”.

General

The Additional Notes

The Additional Notes will be governed by German law and will:

- constitute senior obligations of the Issuer;
- rank equal in right of payment with all of the Issuer’s existing and future obligations that are not subordinated in right of payment to the Notes, including obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities, Priority Hedging Obligations and Cash Management Liabilities;
- be secured by the Collateral (as defined below) along with obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities, Priority Hedging Obligations and Cash Management Liabilities (but will receive proceeds from an enforcement of the Collateral (as defined below) only after all obligations secured on a super priority basis, including obligations under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities, have been paid in full);
- rank senior in right of payment to any existing and future subordinated Indebtedness of the Issuer;
- rank effectively senior in right of payment to any existing or future unsecured obligations of the Issuer, to the extent of the value of the Collateral (as defined below) that is available to satisfy the obligations of the Issuer under the Notes;
- be effectively subordinated to the Issuer’s existing and future secured Indebtedness that is secured by property or assets that do not secure the Notes, to the extent of the value of such property or assets securing such Indebtedness; and
- be structurally subordinated to all existing and future obligations of the Issuer’s Subsidiaries that are not Guarantors (as defined below).

The Note Guarantees

The Notes will initially be guaranteed on a senior basis by each Restricted Subsidiary of the Issuer which guarantees the Existing Notes, the Super Senior Revolving Credit Facility and the Senior Secured Facilities (the “**Initial Note Guarantees**”). The Notes will be guaranteed by Progroup Board GmbH, Progroup Logistics GmbH, Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Power 1 GmbH,

Progroup Board s.r.o., Progroup Board sp. z o.o. and Progroup Board Ltd. (each an “**Initial Guarantor**” and such entities collectively the “**Initial Guarantors**”).

The Guarantors, jointly and severally, guarantee by way of an independent payment obligation (*selbständiges Zahlungsversprechen*) unconditionally and irrevocably, on (subject to the limitations set out below) a senior basis, the full and punctual payment of all amounts payable under the Notes when due. The Note Guarantees are agreed in a separate agreement entered into among Wilmington Trust (London) Limited, as Security Agent, and each Guarantor (the “**Guarantee Agreement**”).

The Note Guarantees do not constitute contracts for the benefit of the holders of the Notes or the Holders’ Representative (as defined below) from time to time as third party beneficiaries in accordance with Section 328(1) of the German Civil Code (*Bürgerliches Gesetzbuch*) and do not give rise to the right of each holder of any Notes or the Holders’ Representative to require performance of the Note Guarantees directly from the Guarantors and to enforce the Note Guarantees directly against the Guarantors. A copy of the Guarantee Agreement may be inspected and obtained free of charge at the principal office of the Paying Agent during normal business hours.

The Issuer may from time to time be required to procure from certain of its Subsidiaries (each, an “**Additional Guarantor**”, and collectively with the Initial Guarantors, the “**Guarantors**”) the issuance of additional guarantees pursuant to the provisions set forth under “—*Covenants—Future Guarantors*” below. Any such guarantee (an “**Additional Note Guarantee**” and, together with the Initial Note Guarantees, the “**Note Guarantees**”) shall be issued on substantially the same terms as the Initial Note Guarantees and be subject to limitations and restrictions as set forth under “—*Covenants—Future Guarantors*”. See “*Risk Factors—Risks Related to the Notes—Each Guarantee and the Collateral will be subject to certain limitations on enforcement and may be limited by applicable laws or subject to certain defenses that may limit its validity and enforceability*” and “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*”.

The term “**Note Guarantees**” shall also include any such Additional Note Guarantees and the term “**Guarantors**” shall also include any such Additional Guarantors.

The obligations under the Note Guarantees issued by Guarantors will be limited as necessary under the terms of such Note Guarantees to prevent the Note Guarantees from constituting a fraudulent conveyance under applicable laws, or otherwise to reflect limitations under applicable laws, including with respect to maintenance of share capital and other applicable statutory provisions. The Note Guarantees may be subject to claims that they should be subordinated or voided in favor of our existing and future creditors under capital maintenance and other laws in Germany and other relevant jurisdictions.

Subject to the above, the Note Guarantee of each Guarantor will:

- constitute direct, unconditional and irrevocable senior obligations of such Guarantor;
- rank equal in right of payment with all of such Guarantor’s existing and future obligations that are not subordinated in right of payment to the relevant Guarantee, including obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities, Priority Hedging Obligations and Cash Management Liabilities;
- be secured by the Collateral along with its obligations under the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities, Priority Hedging Obligations and Cash Management Liabilities (but will receive proceeds from an enforcement of the Collateral only after all obligations secured on a super priority basis, including its obligations under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities, have been paid in full);
- rank senior in right of payment to any existing and future subordinated Indebtedness of the relevant Guarantor;
- effectively rank senior in right of payment to any existing or future unsecured obligations of the relevant Guarantor, to the extent of the value of the Collateral that is available to satisfy the obligations of the relevant Guarantor under the applicable Note Guarantee;
- effectively rank senior in right of payment to any existing or future obligations of the relevant Guarantor secured on the Collateral on a basis junior to the Notes, to the extent of the value of the Collateral that is available to satisfy the obligations under the applicable Note Guarantee;

- be subject to limitations described herein; and
- be effectively subordinated to such Guarantor's existing and future secured Indebtedness that is secured by property or assets that do not secure the Guarantee of such Guarantor, to the extent of the value of such property or assets securing such Indebtedness.

Not all of the Issuer's Subsidiaries guarantee or will guarantee the Notes. In the event of a bankruptcy, liquidation or reorganization of any of these non-Guarantor Subsidiaries, the non-Guarantor Subsidiaries will pay the holders of their debt and their trade creditors before they will be able to distribute any of their assets to the Issuer or any Guarantor. As of and for the twelve-month period ended March 31, 2019, the existing Guarantors accounted, on a consolidated basis, for 90.2% of the consolidated revenues (effects of intragroup transactions eliminated), 99.5% of EBITDA (effects of intragroup transactions eliminated) and 96.4% of the consolidated total assets (effects of intragroup relations eliminated), respectively.

The operations of the Issuer are conducted through its Subsidiaries and, therefore the Issuer depends on the cash flow of its Subsidiaries to meet its obligations, including its obligations under the Notes. The Notes will be structurally subordinated in right of payment to all Indebtedness and other liabilities and commitments (including trade payables and lease obligations) of the Issuer's non-Guarantor Subsidiaries. See "*Risks Factors—Risks Related to the Notes—The Notes and the Guarantees will be structurally subordinated to the liabilities of our non-guarantor subsidiaries*".

Additional Notes

The Issuer may, without the consent of the Holders, issue additional Notes under the Conditions of Issue from time to time after this Offering having the same terms and conditions as the Notes in all respects (or in all respects except for the issue date, the commencement of interest payment obligations and/or the issue price). Any such issuance of additional Notes is subject to all of the covenants in the Conditions of Issue including the covenant described below under "*—Covenants—Limitation on Indebtedness*". The Notes and any additional Notes subsequently issued under the Conditions of Issue will be consolidated with, form a single series with and increase the aggregate principal amount of the Notes; *provided*, however, that any additional notes that are not fungible with the Notes for U.S. federal income tax purposes shall have a separate common code, ISIN or other identifying number different from the Notes. Unless the context requires otherwise, references in this "*Description of the Notes*" to the Notes include the Notes and any additional Notes that are issued.

Principal, Maturity and Interest

The Issuer will issue €150,000,000 aggregate principal amount of Additional Notes in this Offering. The Notes will mature on March 31, 2026 (the "**Maturity Date**") at their principal amount, plus accrued and unpaid interest and Additional Amounts, if any, to the Maturity Date. The Additional Notes will be issued in denominations of €1,000, which will be transferable only in minimum aggregate principal amounts of €100,000 and integral multiples of €1,000 in excess thereof.

Interest on the Additional Notes will accrue on their outstanding aggregate principal amount at the rate of 3.000% per annum from and including March 31, 2019 to but excluding the Maturity Date and will be payable semi-annually in arrears on March 31 and September 30 of each year, commencing on September 30, 2019. The Notes shall cease to bear interest at the end of the day immediately preceding the relevant due date for repayment. Interest on the Additional Notes will accrue from March 31, 2019 or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360 day year comprised of twelve 30 day months.

A Default shall occur, irrespective of any notice, if any amounts payable under the Notes are not paid when due. Any due and unpaid amount of principal shall, irrespective of any notice and for so long as such Default remains outstanding, bear additional default interest at a rate equal to 1% per annum from and including the relevant due date to but excluding the date of payment.

The rights of Holders to receive the payments of interest on such Notes will be subject to the relevant procedures of Clearstream Banking AG, Frankfurt am Main ("**Clearstream Banking**"). If a particular interest payment date is not a Business Day, then the payment date will move to the next Business Day, and the Holders of such Notes will not be entitled to any further interest or other payment as a result of any such delay.

Payments of principal, premium and Additional Amounts, if any, and interest on the Notes will be made to the Paying Agent for on-payment to the clearing system or to its order for credit to the respective account holders of the clearing system and, in case of principal, upon presentation and surrender of the Global Notes. See “—*Book-Entry; Delivery and Form*”. Payments to the clearing system or to its order shall to the extent of amounts so paid constitute the discharge of the Issuer from its corresponding liabilities under the Notes. No service charge will be payable for any registration of transfer or redemption of Notes, but the Issuer may require payment in certain circumstances of a sum sufficient to cover any transfer tax or other similar governmental charge that may be imposed in connection therewith.

Book-entry; Delivery and Form

The Additional Notes will be represented by two global notes in bearer form without interest coupons, one of which shall represent Additional Notes sold to qualified institutional buyers (as defined in, and in reliance on, Rule 144A under the Securities Act) (such global note, the “**144A Global Note**”) and the other of which shall represent Additional Notes sold outside the United States to persons other than U.S. persons as defined in, and in reliance on, Regulation S under the Securities Act (such global note, the “**Reg S Global Note**”) and, together with the 144A Global Note, the “**Global Notes**”). Definitive notes representing individual Notes and interest coupons shall not be issued. The Global Notes will be deposited with Clearstream Banking. Ownership of interests in the Global Notes, referred to as “book-entry interests”, will be limited to persons that have accounts with Clearstream Banking (such persons, “**participants**”) or persons that may hold interests through such participants. Book-entry interests will be shown on, and transfers thereof will be effected only through, records maintained in book-entry form by Clearstream Banking and its participants.

Security; Release of Collateral

The payment obligations of the Issuer under the Notes and the Guarantors under the Note Guarantees will initially be secured by the Issuer Share Pledges and the payment obligations of the Issuer under the Notes and the Guarantors under the Note Guarantees will be secured by Liens (subject to any Permitted Collateral Liens, applicable perfection requirements and exceptions and limitations described herein) over the collateral set out below (collectively, with the Issuer Share Pledges, the “**Collateral**”):

- (a) pledges over the shares and stock interests, as applicable, in Progroup Board GmbH, Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Logistics GmbH, Progroup Power 1 GmbH, Progroup Board sp. z o.o., Progroup Board s.r.o., Progroup Board S.A.S. and Progroup Board Ltd.;
- (b) security interests over receivables of the Parent against the Issuer or any of its Subsidiaries;
- (c) pledges over certain bank accounts with banks in Germany of the Issuer;
- (d) security interests over certain real property located in Germany, Poland and the Czech Republic, as applicable, of Progroup Board GmbH, Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Power 1 GmbH, Progroup Board s.r.o. and Progroup Board sp. z o.o.; and
- (e) security interests over certain installations, machines and other business equipment of Progroup Board GmbH, Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Power 1 GmbH, Progroup Board s.r.o., and Progroup Board sp. z o.o. and Progroup Board Ltd.

The Additional Notes are intended to benefit from the same liens over the Collateral as the Existing Notes, the Super Senior Revolving Credit Facility and the Senior Secured Facilities. In order to address any potential legal uncertainty in certain jurisdictions on this point with regard to certain liens, however, we will enter into separate confirmation agreements and/or amendment agreements with regard to such liens on or before the issue date of the Additional Notes. In addition, we will create supplemental and/or additional junior ranking liens over certain assets of the Issuer and the Guarantors that form part of the Collateral in certain jurisdictions. Such additional liens will secure all the Notes. In certain jurisdictions, such supplemental and/or additional liens over the Collateral, because they are being granted at a later point in time, will rank junior to security interests in the Collateral granted in favor of the Existing Notes, the Super Senior Revolving Credit Facility and the Existing Senior Secured Facilities. However, the Intercreditor Agreement provides that the benefit of the first and junior ranking pledges over the Collateral shall be shared equally among the Holders, the holders of the Existing Notes, the Super Senior Revolving Credit Facility Lenders, the Senior Secured Facility Lenders, the creditors of the Priority Hedging Obligations and the creditors of the Cash Management Liabilities, *provided* that any liabilities in

respect of obligations under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities that are secured by assets that also secure the Issuer's obligations under the Notes and the Guarantors' obligations under Note Guarantees will receive priority with respect to any proceeds received upon any enforcement action over any such assets.

In determining whether and what additional collateral and guarantees may be provided the Agreed Security Principles as set forth in the Super Senior Revolving Credit Facility will be taken into account. According to such principles, guarantees shall not be granted and collateral shall not be created, perfected or registered in particular to the extent that it would be likely to:

- result in any breach of general statutory limitations, capital maintenance, corporate benefit, fraudulent preference, financial assistance or thin-capitalisation rules or other similar laws or regulations (or analogous restrictions) of any applicable jurisdiction;
- result in any risk that the directors and officers of the relevant grantor of collateral or guarantees could be held to be (i) in breach of their fiduciary duties and/or (ii) company or criminal law;
- result in costs that are disproportionate to the benefit obtained by the beneficiaries of that collateral and including, but not limited to, the materiality of the proposed collateral in light of the aggregate collateral already granted; or
- result in an undue administrative burden on, or material inconvenience to the ordinary course of operations of the provider of the collateral and the guarantee or prejudice any commercial relationships of such parties.

Furthermore, any assets (other than shares) subject to pre-existing third-party arrangements which are permitted by the Super Senior Revolving Credit Facility and which prevent those assets from being charged will be excluded from any relevant Security Document. Also, no guarantee or security shall be required from any member of the Group that is a joint venture (where that joint venture is entered into between a member of the Group and an independent third party joint venture partner) or from any entity in which a member of the Group holds a minority interest and no security will be required over the shares held by any member of the Group in a joint venture (where that joint venture is entered into between a member of the Group and an independent third party joint venture partner).

The share pledges, the interest pledges and the account pledges indicated above will be established pursuant to the Security Documents with the Security Agent acting for the benefit of the Holders, the holders of the Existing Notes, the Super Senior Revolving Credit Facility Lenders and the Senior Secured Facility Lenders. The other Collateral will be established pursuant to the Security Documents with the Security Agent acting for the benefit of the Holders, the holders of the Existing Notes, the Super Senior Revolving Credit Facility Lenders and the Senior Secured Facility Lenders being the legal holder of the security interests in the Collateral. Applicable law may require that a security interest in certain assets can only be properly perfected and its priority retained through certain actions which, in the case of some Collateral, will not be completed until after the issue date of the Additional Notes (including security interests over certain real property which perfection requirements will be satisfied only until after the issue date of the Additional Notes).

Subject to the Agreed Security Principles, if machinery, other equipment or real property are acquired by the Issuer or any Guarantor that is not automatically subject to a perfected security interest under the Security Documents and which will be subject to a security interest in favor of the holders of the Existing Notes, the Super Senior Revolving Credit Facility Lenders or the Senior Secured Facility Lenders, then (to the extent the security interest is not already granted in favor of the Security Agent for the Holders) the Issuer or such Guarantor will within three months, with respect to acquired machinery or other equipment, and within six months, with respect to acquired real property, provide security over such assets in favor of the Security Agent. Pursuant to the Agreed Security Principles, no security shall be granted in favor of the Security Agent or the Holders over any such assets which are subject to any Liens granted or created in accordance with clauses (13)(b), (15), (23), (29), (30) or (31) of the definition of "Permitted Liens".

The Security Agent will (i) release the Liens over the shares, property and other assets constituting Collateral in accordance with the terms provided therefor in the Conditions of Issue, the Security Documents and the Intercreditor Agreement and (ii) at the request of the Issuer, a Guarantor or another security provider upon having received an Officers' Request Certificate and Opinion of Counsel certifying compliance with this paragraph, release the relevant Collateral or execute such other appropriate instrument evidencing such release (in the form provided by and at the expense of the Issuer or the

relevant security provider) under one or more of the following circumstances (without any such release requiring the consent of the Holders' Representative or the Holders):

- (a) in connection with any sale, assignment, transfer, conveyance or other disposition of such property or assets to a Person that is not (either before or after giving effect to such transaction) the Issuer or any of its Restricted Subsidiaries, if the sale, assignment, transfer, conveyance or other disposition does not violate the provisions described under “—*Covenants—Limitation on Sales of Assets*” below and is otherwise in compliance with the Conditions of Issue;
- (b) in the case of a Guarantor that is released from its Note Guarantee pursuant to the terms of the Conditions of Issue, the release of the property, assets and Capital Stock, of such Guarantor which was part of the Collateral;
- (c) if the Issuer designates any of its Restricted Subsidiaries to be an Unrestricted Subsidiary as permitted under and in compliance with the Conditions of Issue, the release of the property, assets and Capital Stock of such Restricted Subsidiary;
- (d) upon redemption of all the Notes;
- (e) upon legal defeasance or covenant defeasance of the Notes as provided below under “—*Legal Defeasance or Covenant Defeasance*”;
- (f) in connection with an enforcement action taken by certain secured creditors of the Issuer and its Restricted Subsidiaries in accordance with the Intercreditor Agreement or any Additional Intercreditor Agreement;
- (g) as provided for under “—*Amendments and Waivers*”;
- (h) as a result of a transaction permitted by the covenant described below under “—*Covenants—Merger and Consolidation*”;
- (i) with respect to any property or assets that become Collateral securing the Notes and/or any Note Guarantee pursuant to clause (a)(ii) of the covenant “—*Limitation on Liens*”, upon the release and discharge (other than as a result of an enforcement action) of the Initial Lien (as defined below), to the extent that such Lien does not secure any other Indebtedness on a *pari passu* basis in accordance with the Intercreditor Agreement or any Additional Intercreditor Agreement;
- (j) with respect to the Issuer Share Pledges and any Collateral consisting of the type of assets listed under clause (b) of the definition of “Collateral” set out above, upon the release and discharge (other than as a result of an enforcement action) of any and all Liens (other than Permitted Liens) over such Collateral securing Indebtedness, so long as no Event of Default exists at such time or would arise as a result of such release;
- (k) with respect to any Collateral (other than the Issuer Share Pledges and any Collateral consisting of the type of assets listed under clause (b) of the definition of “Collateral” set out above), upon the release and discharge (other than as a result of an enforcement action) of any and all Liens (other than Permitted Liens) over such Collateral securing Indebtedness, so long as no Event of Default exists at such time or would arise as a result of such release; *provided* that at the time of such release a Rating Triggering Period is in effect;
- (l) as provided for in the Security Documents, the Intercreditor Agreement or any Additional Intercreditor Agreement; or
- (m) in connection with the granting or creation of any Liens on assets or property in accordance with clauses (13)(b), (15), (23), (29), (30) or (31) of the definition of “Permitted Liens”; *provided* that if the relevant Collateral constitutes real property, (i) the relevant real property or portion of real property constitutes un-built land without any building constructed thereon; (ii) the Security Agent shall only be required to release the Liens on a portion of the real property as reasonably required (as determined in good faith by the Issuer's Board of Directors) for the realization of the relevant Packaging Park Project; and (iii) any division of real property, if applicable, shall not materially impair the value of the portion of the remaining real property (as determined in good faith by the Issuer's Board of Directors); *provided* further that the Security Agent shall take any other actions reasonably requested by the Issuer or a Restricted Subsidiary to permit the creation of first-ranking Liens over the relevant assets or property in accordance with clauses (13)(b), (15),

(23), (29), (30) or (31) of the definition of “Permitted Liens”, including by facilitating the division of any relevant real property into separate parcels.

The Security Agent shall be entitled to accept such Officers’ Request Certificate and Opinion of Counsel as sufficient evidence of compliance with this paragraph, in which event it shall be conclusive and binding on the Holders.

The Security Agent will take all necessary action required to effectuate any release of Collateral securing the Notes and the Note Guarantees, in accordance with the provisions of the Conditions of Issue, the Intercreditor Agreement or any Additional Intercreditor Agreement and the relevant Security Document. Each of the releases set forth above shall be effected by the Security Agent without the consent of the Holders or any action on the part of the Holders’ Representative.

The creditors under the Super Senior Revolving Credit Facility, the creditors under the Senior Secured Facilities (following accession to the Intercreditor Agreement on or about the issue date of the Additional Notes, in the case of the creditors under the New Senior Secured Facilities), and the Holders’ Representative, in its own name and on behalf of the Holders, appointed Wilmington Trust (London) Limited, as Security Agent, to act as their agent and security trustee under the Intercreditor Agreement and the Security Documents and irrevocably authorized the Security Agent to:

- (a) perform the duties and exercise the rights, powers and discretions that are specifically given to them under the Intercreditor Agreement or the Security Documents, together with any other incidental rights, power and discretions;
- (b) execute each Security Document on their behalf and any waiver, modification, amendment, renewal or replacement permitted by the Conditions of Issue and the Intercreditor Agreement; and
- (c) administer and enforce any security interest with respect to any Collateral, subject to the terms and conditions and limitations contained in the Intercreditor Agreement and the Security Documents.

Intercreditor Agreement

The relative rights of certain creditors of the Issuer under its financing arrangements, including without limitation the Super Senior Revolving Credit Facility, the Senior Secured Facilities, the Notes and the Note Guarantees, certain Hedging Obligations and certain Cash Management Liabilities, will be governed by the Intercreditor Agreement entered into on April 29, 2015 between, among others, the Issuer, the Guarantors, the Super Senior Revolving Credit Facility Lenders and the Security Agent. The Intercreditor Agreement provides for accession by certain additional Pari Passu Debt Creditors (as defined in the Intercreditor Agreement) and/or their representatives. Commerzbank Aktiengesellschaft, as agent under the Senior Secured PLN Facilities and on behalf of the lenders under the Senior Secured PLN Facilities, Goldman Sachs International and J.P. Morgan Securities plc, as additional lenders under the Super Senior Revolving Credit Facility, Goldman Sachs Lending Partners LLC, as agent under the Senior Secured GBP Facility and on behalf of Goldman Sachs Bank USA, as original lender under the Senior Secured GBP Facility, IKB Deutsche Industriebank AG, as agent and original lender under the Senior Secured EUR Facility, Commerzbank Aktiengesellschaft, as agent and original lender under the Existing Senior Secured Commerzbank Facilities, HSBC Trinkaus & Burkhardt AG, as agent and original lender under the Existing Senior Secured HSBC Facility, Landesbank Saar as agent and original lender under the Existing Senior Secured SaarLB Facility, and Deloitte GmbH Wirtschaftsprüfungsgesellschaft, as holders’ representative on behalf of the holders of the Existing Floating Rate Notes, have entered into creditor/creditor representative accession agreements with regard to the Senior Secured PLN Facilities, the Super Senior Revolving Credit Facility, the Existing Senior Secured GBP Facility, the Senior Secured EUR Facility, the Existing Senior Secured Commerzbank Facilities, the Existing Senior Secured SaarLB Facility and the Existing Floating Rate Notes, respectively, as contemplated by the Intercreditor Agreement. We expect that Erste Bank Group AG as lender and agent under the New Senior Secured Erste Bank Facility, Landesbank Baden-Württemberg as lender and agent under the New Senior Secured LBBW Facilities and Landesbank Saar as lender and agent under the New Senior Secured SaarLB Facility, will accede to the Intercreditor Agreement on or around the issue date of the Additional Notes. The Additional Notes will constitute Additional Indebtedness (as defined in the Intercreditor Agreement) for purposes of the Intercreditor Agreement and will therefore be permitted to share in the Collateral that also secures (or will secure, as applicable) the Super Senior Revolving Credit Facility, the Senior Secured Facilities and any

other Pari Passu Debt Liabilities. Pursuant to the terms of the Intercreditor Agreement, any liabilities in respect of obligations under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities that are secured by assets that also secure the Issuer's obligations under the Notes and the Guarantors' obligations under Note Guarantees will receive priority with respect to any proceeds received upon any enforcement action over any such assets. Any proceeds received upon any enforcement action over any Collateral, after all obligations under the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities, as well as all obligations owing to the Security Agent, any receiver or delegate have been repaid from such recoveries, will be applied *pro rata* in repayment of all obligations under the Conditions of Issue and the Notes and any other Pari Passu Debt (as defined in the Intercreditor Agreement) of the Issuer and the Guarantors permitted to be incurred and secured by the Collateral pursuant to the Conditions of Issue and the Intercreditor Agreement.

Release of Note Guarantees

A Note Guarantee shall be released and discharged, automatically, unconditionally and without further action on the part of the Security Agent:

- (a) in the case of a Note Guarantee of a Guarantor, in the event of any sale, exchange or transfer (including by merger or otherwise) (i) of the Capital Stock of a Guarantor, after which the applicable Guarantor is no longer a Restricted Subsidiary, or (ii) of all or substantially all the assets of such Guarantor to a Person that is not the Issuer or a Restricted Subsidiary, in each of sub-clauses (i) and (ii) of this clause (a), which sale, exchange or transfer is permitted under, and made in compliance with, the Conditions of Issue;
- (b) upon the release of the Guarantee of Indebtedness that resulted in the creation of the relevant Note Guarantee under the covenant described below under “—*Covenants—Future Guarantors*” so long as no Event of Default would arise as a result and no other Indebtedness of the Issuer or any Guarantor at that time is Guaranteed by the relevant Guarantor;
- (c) upon legal defeasance or covenant defeasance of the Notes as provided below under “—*Legal Defeasance or Covenant Defeasance*”;
- (d) upon redemption of all the Notes;
- (e) if the Issuer designates a Guarantor as an Unrestricted Subsidiary as permitted under and in compliance with the Conditions of Issue;
- (f) in accordance with the provisions of the Intercreditor Agreement, any Additional Intercreditor Agreement or Security Document;
- (g) as a result of a transaction permitted by the covenant described below under “—*Covenants—Merger and Consolidation*”;
- (h) as provided for under “—*Amendments and Waivers*”; or
- (i) as provided for in the Note Guarantees.

No release and discharge of a Note Guarantee pursuant to clauses (b) and (e) above shall be effective (i) if a Default or an Event of Default has occurred and is continuing under the Conditions of Issue as of the time of such proposed release and discharge until such time as such Default or Event of Default is cured or waived and (ii) if so requested by the Security Agent, until the Issuer shall have delivered to the Security Agent (x) an Officers' Request Certificate and (y) Opinion of Counsel, each stating that all conditions precedent set forth in the Conditions of Issue have been fulfilled and that such release and discharge is authorized and permitted pursuant to the Conditions of Issue. The Security Agent shall be entitled to accept such Opinion of Counsel as sufficient evidence of the satisfaction of such conditions precedent, in which event it shall be conclusive and binding on the Holders.

Upon any occurrence giving rise to a release of a Note Guarantee, as specified above, the Security Agent, subject to receipt of certain documents from the Issuer or a Guarantor, will take all necessary action and execute any documents, including the granting of releases or waivers under the Intercreditor Agreement or any Additional Intercreditor Agreement, reasonably required in order to evidence such release, discharge and termination in respect of any Note Guarantee to be released as described above. Neither the Issuer nor any Guarantor will be required to make a notation on the Notes to reflect any such release, discharge or termination.

Restricted Subsidiaries

All of the Subsidiaries of the Issuer are “Restricted Subsidiaries”. However, under the circumstances described below under “—Covenants—Restricted and Unrestricted Subsidiaries”, the Issuer will be permitted to designate Restricted Subsidiaries as “Unrestricted Subsidiaries”. Unrestricted Subsidiaries will not be subject to any of the restrictive covenants in the Conditions of Issue and will not guarantee the Notes.

Paying Agent, Transfer Agent and Holders’ Representative

The Issuer will maintain for the Notes a Paying Agent (the “**Paying Agent**”), a Transfer Agent (the “**Transfer Agent**”) and a Notification Agent (“**Notification Agent**”) for communication by the Holders’ Representative. The initial Paying Agent, Transfer Agent and Notification Agent is Deutsche Bank AG.

The Issuer may appoint additional paying agents and transfer agents and revoke the appointment of any paying agent or transfer agent; *provided*, however, that (i) for as long as the Notes are listed on a stock exchange, the Issuer shall at all times ensure that a paying agent is appointed in the jurisdiction in which such stock exchange is located, if so required by the rules of such stock exchange and (ii) in no event may the Issuer act as Paying Agent or appoint a Paying Agent in any member state of the European Union where the Paying Agent would be obliged to withhold or deduct tax in connection with any payment made by it in relation to the Notes unless the Paying Agent would be so obliged if it were located in all other member states. Any such appointment or revocation shall be published without undue delay in accordance with the provisions set forth under “—Notices”.

The Paying Agent and the Transfer Agent reserve the right at any time to change their specified offices. Any such change shall be published without undue delay in accordance with procedures set forth under “—Notices”.

The common representative (the “**Holders’ Representative**”) to exercise the Holders’ rights on behalf of the Holders as provided for in the Conditions of Issue is Deloitte GmbH Wirtschaftsprüfungsgesellschaft, Schwannstrasse 6, 40476 Düsseldorf, Germany. The Holders’ Representative has the duties and powers provided for in the Conditions of Issue, the Intercreditor Agreement, by law or granted by resolution of the Holders. The Holders’ Representative shall comply with the instructions of the Holders. To the extent that the Holders’ Representative has been authorized to assert certain rights of the Holders, the Holders shall not be entitled to assert such rights themselves, unless explicitly provided for in the relevant resolution or the Conditions of Issue. The Holders’ Representative shall provide reports to the Holders on its activities. The provisions of the German Act on Debt Securities of 2009 (*Gesetz über Schuldverschreibungen aus Gesamtemissionen (Schuldverschreibungsgesetz-SchVG)*, “**SchVG**”) apply with regard to the removal of the Holders’ Representative and its rights and obligations. Notwithstanding the next paragraph below, if the Holders choose to remove the Holders’ Representative or if the Holders’ Representative resigns and the Holders fail to appoint a successor Holders’ Representative, the exercise of certain rights under the Conditions of Issue may require a meeting of the Holders and may be significantly more difficult to exercise.

The Holders’ Representative may be removed from office at any time by majority resolution of the Holders without specifying any reasons; *provided* that the Holders shall only so remove the Holders’ Representative if, at the same time, a successor Holders’ Representative for the Notes is elected by the majority resolution of the Holders. The Holders’ Representative may resign at any time by notifying the Issuer (in which case the Issuer shall notify the Holders in accordance with the notice provisions). If the Holders’ Representative resigns, it shall call a vote without undue delay to elect a successor Holders’ Representative. Any successor Holders’ Representative shall also succeed the retiring Holders’ Representative as a party to the Intercreditor Agreement.

The Holders’ Representative will be liable for the proper performance of its duties towards the Holders who will be joint and several creditors (*Gesamtgläubiger*); in the performance of its duties it shall act with the diligence and care of a prudent business manager (*ordentlicher und gewissenhafter Geschäftsleiter* within the meaning of Section 7(3) SchVG). The total liability of the Holders’ Representative to all Holders will be limited to €5,000,000 (or, if higher, an amount equal to ten times the Holders’ Representative’s aggregate annual compensation for its services as common representative of the Holders) in the aggregate, unless the Holders’ Representative’s liability has been caused by its gross negligence (*grobe Fahrlässigkeit*) or willful misconduct (*Vorsatz*) (in which case its liability shall be unlimited). The responsibilities and liability of the Holders’ Representative is further limited as specified in the Conditions of Issue and may be further limited by a resolution passed by Holders.

The Holders' Representative shall not under any circumstances be liable for any consequential loss. The Holders' Representative shall be entitled to retain third party advisors if such appointment is, in its sole reasonable discretion, required in, or for the performance of, its duties and the Issuer will bear such costs. The Holders' Representative shall only be responsible for the proper selection of such third-party advisor (*Auswahlverschulden*), but shall otherwise be entitled to rely fully on the advice rendered by such third party advisor. In particular, the Holders' Representative is not responsible for the selection of the Security Agent and will have no responsibility towards the Holders or any other party for the validity, perfection, sufficiency, adequacy, insuring of, priority or enforceability of any Note Guarantee, Collateral, Intercreditor Agreement or any Additional Intercreditor Agreement, regardless of whether entered in before or after the Issue Date.

The Holders' Representative may demand from the Issuer to furnish all information required for the performance of the duties entrusted to it.

Payment of Additional Amounts

All payments by or on behalf of the Issuer or, pursuant to the terms of the relevant Note Guarantee, any present or future Guarantor or any successor of any of the foregoing (each a "**Payor**") under or with respect to the Notes or any Note Guarantee shall be made free and clear of and without withholding or deduction for or on account of any Taxes, unless the deduction or withholding of such Taxes is required by law. If any withholding or deduction for, or on account of, any Taxes imposed by or on behalf of or levied within (i) the Federal Republic of Germany, (ii) any jurisdiction from or through which payment on the Notes or a Note Guarantee is made, (iii) any other jurisdiction in which a Payor is organized or otherwise considered to be resident or conducts business for tax purposes or any (iv) province, municipality or other political subdivision or taxing authority in or of any such jurisdiction under foregoing (i) through (iii) (any such jurisdiction under foregoing (i) through (iv) a "**Relevant Tax Jurisdiction**"), will at any time be required to be made from any payments made by or on behalf of the Issuer or any Guarantor under or with respect to the Notes or any Note Guarantee, the relevant Payor shall pay (together with such payment) such additional amounts as may be necessary in order that the net amounts received by the holders of the Notes after such withholding or deduction (including any deduction or withholding from such additional amounts) shall equal the respective amounts of principal and interest that would have been receivable in respect of the Notes, in the absence of such deduction or withholding (the aggregate of such additional amounts, "**Additional Amounts**"), except that no such Additional Amounts shall be payable with respect to:

- (a) any Taxes, to the extent such Taxes are withheld, deducted or imposed by reason of the Holder or beneficial owner of a Note (or a fiduciary, settler, beneficiary, partner, member or shareholder of, or possessor of power over the relevant Holder or beneficial owner, if the relevant Holder or beneficial owner is an estate, nominee, trust, partnership, limited liability company or corporation) having, or having had, some personal or business connection with the Relevant Tax Jurisdiction (other than the mere acquisition, ownership, holding or disposition of such Note, the enforcement of rights under such Note or under a Note Guarantee, or the receipt of any payments in respect of such Note or Note Guarantee) and not merely by reason of the fact that payments in respect of the Notes or any Note Guarantee are, or for purposes of taxation are deemed to be, derived from sources in, or are secured in, the Relevant Tax Jurisdiction;
- (b) any Taxes that are payable otherwise than by deduction or withholding from a payment on or with respect to the Notes or any Note Guarantee;
- (c) any Taxes imposed on a payment on a Note presented for payment (where presentation is required for payment) by or on behalf of a Holder who would have been able to avoid such Taxes by presenting the Note to another Paying Agent in a member state of the European Union;
- (d) any estate, inheritance, gift, sale, transfer, personal property or similar Taxes;
- (e) any Taxes, to the extent such Taxes are withheld, deducted or imposed by reason of the failure of the Holder, following the Issuer's written request addressed to the Holder (and made at a time that would enable the Holder acting reasonably to comply with that request, and in all events, at least 60 days before any such withholding or deduction would be required), to comply with any certification, identification, information or other reporting requirements, whether required by statute, treaty, regulation or administrative practice of a Relevant Tax Jurisdiction, as a precondition to exemption from, or reduction in the rate of deduction or withholding of, Taxes

imposed by the Relevant Tax Jurisdiction (including, without limitation, a certification that the Holder is not resident in the Relevant Tax Jurisdiction), but in each case, only to the extent the Holder is legally entitled to provide such certification or documentation;

- (f) any Taxes, to the extent such Taxes are withheld, deducted or imposed under section 1471 through 1474 of the United States Internal Revenue Code of 1986, as amended, as of March 27, 2018 (and any amended or successor version that is substantively comparable and not materially more onerous to comply with), including any current or future Treasury regulations or other official interpretations thereunder or any law or regulation implementing an intergovernmental agreement between a non-U.S. government and the United States with respect to the foregoing;
- (g) any Taxes, to the extent such Taxes are withheld, deducted or imposed on or with respect to any payments under, or with respect to, the Notes or under or with respect to any Note Guarantee by reason of the Holder being, or having been a fiduciary or partnership or any person other than the sole beneficial owner of any such payments to the extent that such Taxes would not have been imposed or required to be withheld or deducted on such payments had such Holder been the sole beneficial owner of such Notes; or
- (h) any combination of items (a) through (g) above.

In cases where the deduction or withholding of Taxes on or with respect to any payments under or with respect to the Notes or with respect to any Note Guarantee is required by law to be made by a Payor, the Payor will (i) make any required withholding or deduction and (ii) timely remit the full amount deducted or withheld to the Relevant Tax Jurisdiction in accordance with applicable law. The Payor will use all reasonable efforts to obtain tax receipts evidencing the payment of any Taxes so deducted or withheld from each Relevant Tax Jurisdiction imposing such Taxes and will furnish to a Holder upon written request within a reasonable time after the date the payment of any Taxes so deducted or withheld is made, certified copies of tax receipts evidencing payment by the Payor, or if, notwithstanding the Payor's efforts to obtain receipts, receipts are not obtained, other reasonably satisfactory evidence of payments by the Payor.

If the Payor becomes aware that it will be obligated to pay Additional Amounts with respect to such payment, at least 30 days prior to each date on which any payment under or with respect to the Notes or any Note Guarantee is due and payable (unless such obligation to pay Additional Amounts arises after the 30th day prior to such date, in which case it must be promptly thereafter), the Payor will deliver to the Paying Agent an Officers' Request Certificate stating the fact that Additional Amounts will be payable, the amounts estimated to be payable and such other information necessary to enable the Paying Agent to inform the relevant Holders of the payment of such Additional Amounts in accordance with the procedures set forth in "*—Notices*" on the payment date.

The Payor will pay any present or future stamp, court or documentary taxes, or any other excise or property taxes, charges or similar levies imposed by a Relevant Tax Jurisdiction (including penalties, interest and other liabilities related thereto) which arise from the execution, delivery, issuance or registration of the Notes or any Note Guarantee or any other document or instrument referred to therein (other than a transfer of the Notes), or the receipt of any payments with respect to, or enforcement of, the Notes or any Note Guarantee.

Whenever in the Conditions of Issue or in this "*Description of the Notes*" there is mentioned, in any context, the payment or non-payment of principal, premium or interest, if any, or any other amount payable under or with respect to any Note or Note Guarantee, such mention shall be deemed to include mention of the payment of Additional Amounts to the extent that, in such context, Additional Amounts are, were or would be payable in respect thereof.

The above obligation will survive any termination or defeasance of the Conditions of Issue, any transfer by a Holder or beneficial owner of its Notes, and will apply, *mutatis mutandis*, to any jurisdiction in which any successor Person to the Issuer or any Guarantor is organized or otherwise considered to be resident or conducts business for tax purposes or any jurisdiction from or through which any payment on the Notes or any Note Guarantee is made and any political subdivision or taxing authority or agency thereof or therein.

Currency Indemnity

The euro is the sole currency of account and payment for all sums payable by the Issuer or any Guarantors under or in connection with the Notes. Any amount received or recovered in a currency other than euro (the "**Required Currency**"), which is made to or for the account of any Holder in lawful currency of any

other jurisdiction (the “**Judgment Currency**”), whether as a result of any judgment or order or the enforcement thereof or the liquidation of the Issuer or a Guarantor, shall constitute a discharge of the Issuer or the Guarantor’s obligation under the Conditions of Issue and the Notes or Note Guarantee, as the case may be, only to the extent of the amount of the Required Currency with such Holder, as the case may be, could purchase in the London foreign exchange markets with the amount of the Judgment Currency in accordance with normal banking procedures at the rate of exchange prevailing on the first Business Day following receipt of the payment in the Judgment Currency. If the amount of the Required Currency that could be so purchased is less than the amount of the Required Currency originally due to such Holder, as the case may be, the Issuer shall indemnify and hold harmless the Holder, as the case may be, from and against all loss or damage arising out of, or as a result of, such deficiency. This indemnity shall constitute an obligation separate and independent from the other obligations contained in the Conditions of Issue and shall give rise to a separate and independent cause of action, shall apply irrespective of any indulgence granted by any Holder from time to time and shall continue in full force and effect notwithstanding any judgment or order for a liquidated sum in respect of an amount due hereunder or under any judgment or order.

Optional Redemption

At any time prior to March 31, 2021, the Issuer may on any one or more occasions redeem up to 35% of the original principal amount of the Notes (calculated after giving effect to any issuance of additional Notes) with the Net Cash Proceeds of one or more Equity Offerings at a redemption price of 103.000% of the principal amount thereof, plus accrued and unpaid interest and Additional Amounts, if any, to but excluding the applicable redemption date (subject to the rights of Holders to receive interest on the relevant interest payment date); *provided*, however, that:

- (i) at least 65% of the original principal amount of the Notes (calculated after giving effect to any issuance of additional Notes) remains outstanding after each such redemption; and
- (ii) the redemption occurs within 90 days after the closing of such Equity Offering upon not less than 30 nor more than 60 days’ prior notice.

At any time prior to March 31, 2021, the Issuer may on any one or more occasions redeem all or a part of the Notes upon not less than 10 nor more than 60 days’ prior notice, at a redemption price equal to 100% of the principal amount of the Notes redeemed plus the Applicable Premium and accrued and unpaid interest and Additional Amounts, if any, to but excluding the applicable redemption date (subject to the rights of Holders to receive interest on the relevant interest payment date).

Except pursuant to the preceding two paragraphs and except pursuant to “—*Early Redemption for Taxation Reasons*”, the Notes will not be redeemable at the Issuer’s option prior to March 31, 2021.

At any time on or after March 31, 2021, the Issuer may on any one or more occasions redeem all or a part of the Notes, upon not less than 10 nor more than 60 days’ notice, at the redemption prices (expressed as a percentage of principal amount) set forth below, plus accrued and unpaid interest and Additional Amounts, if any, to but excluding the applicable redemption date, if redeemed during the twelve-month period beginning on March 31 of the years indicated below, subject to the rights of Holders to receive interest on the relevant interest payment date:

2021	101.500%
2022	100.750%
2023 and thereafter	100.000%

Unless the Issuer defaults in the payment of the redemption price, interest will cease to accrue on the Notes or portions thereof called for redemption on the applicable redemption date. If the due date for any redemption payment in respect of the Note is not a Business Day, payment shall be made on the next succeeding day that is a Business Day and no interest shall accrue for the intervening period.

Optional Redemption upon Certain Tender Offers

Notwithstanding any other provision of the Conditions of Issue, in connection with any tender offer for, or other offer to purchase or invitation to offer to purchase, the Notes, including a Change of Control Offer (as defined below) or Asset Disposition Offer (as defined below) (each, a “**Tender Offer**”), if Holders of not less than 90% of the aggregate principal amount of the then outstanding Notes validly tender (or offer to purchase) and do not validly withdraw (or revoke their offer to purchase) such Notes in such Tender

Offer and the Issuer, or any third party making such Tender Offer in lieu of the Issuer, purchases all of the Notes validly tendered (or offered to purchase) and not validly withdrawn (or such offer to purchase not having been validly revoked) by such Holders, the Issuer or such third party will have the right upon not less than 10 nor more than 60 days' notice, given not more than 30 days following the expiration date of the relevant Tender Offer, to redeem all remaining Notes at a price equal to the price paid to each other Holder (excluding any early tender or incentive fee) in such Tender Offer, plus, to the extent not included in the Tender Offer payment, accrued and unpaid interest and Additional Amounts, if any, thereon, to but excluding the applicable redemption date.

Early Redemption for Taxation Reasons

If (i) the Issuer becomes obligated to pay Additional Amounts as set forth under “—*Payment of Additional Amounts*” above, (ii) such obligation cannot be avoided by the taking of reasonable measures available to the Issuer and (iii) the requirement arises as a result of:

- (a) any change in or amendment to, the laws or treaties (or any regulations, or rulings promulgated thereunder) of the Relevant Tax Jurisdiction which change or amendment has not been publicly announced as formally proposed before, and which becomes effective on or after, the Issue Date or, if a Relevant Tax Jurisdiction has changed since the Issue Date, the date on which such Relevant Tax Jurisdiction became an applicable Relevant Tax Jurisdiction pursuant to the Conditions of Issue (the “**Relevant Tax Jurisdiction Date**”); or
- (b) any change in, or amendment to, the existing official position or the introduction of an official position regarding the application, administration or interpretation of such laws, treaties, regulations or rulings (including a holding, judgment or order by a court of competent jurisdiction or a change in published practice), which change, amendment, application or interpretation has not been publicly announced as formally proposed before, and becomes effective on or after, the Relevant Tax Jurisdiction Date,

the Notes may be redeemed, in whole but not in part, at the option of the Issuer, upon not less than 10 days' nor more than 60 days' prior notice of redemption at 100% of the outstanding principal amount thereof together with accrued and unpaid interest, if any, to but excluding the date fixed for redemption (a “**Tax Redemption Date**”) and Additional Amounts, if any, then due and that will become due on the Tax Redemption Date as a result of the redemption or otherwise (subject to the right of Holders to receive interest due on the relevant interest payment date and Additional Amounts, if any, in respect thereof).

Prior to giving any notice of redemption pursuant to this provision, the Issuer shall deliver to the Holders' Representative for delivery to the Holders in accordance with “—*Notices*” (i) an Officers' Request Certificate stating that the Issuer is entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to the right of the Issuer so to redeem have occurred and (ii) an Opinion of Counsel qualified under the laws of the Relevant Tax Jurisdiction to the effect that there has been such change or amendment which would entitle the Issuer to redeem the Notes hereunder. The Holders' Representative shall be entitled to accept such Opinion of Counsel as sufficient evidence of the satisfaction of such conditions precedent, in which event it shall be conclusive and binding on the Holders.

No notice of redemption pursuant to this provision may be given (i) earlier than 60 days prior to the earliest date on which the Issuer would be obligated to pay such Additional Amounts were a payment in respect of the Notes then due, or (ii) if at the time such notice is given, such obligation to pay such Additional Amounts does not remain in effect.

Procedures of Redemption

Any notice of redemption shall be given in accordance with the procedures set forth in “—*Notices*”. It shall be irrevocable, must specify the amount of redemption, the terms and date fixed for redemption and must set forth a statement in summary form of the facts constituting the basis for the right of the Issuer so to redeem the Notes.

In the case of a partial redemption of the Notes, the Notes to be redeemed shall be selected in accordance with the rules of the relevant clearing system. Such partial redemption shall be reflected in the records of Clearstream Banking as either a pool factor or a reduction in aggregate principal amount.

The Issuer may acquire Notes by means other than a redemption, whether by tender offer, open market purchase, negotiated transactions or otherwise, in accordance with applicable laws, as long as such transaction does not otherwise violate the Conditions of Issue.

Mandatory Redemption

The Issuer is not required to make mandatory redemption or sinking fund payments with respect to the Notes.

Repurchase at the Option of Holders upon a Change of Control

If a Change of Control occurs, each Holder shall have the right to require the Issuer to repurchase all or any part (equal to €100,000 or an integral multiple of €1,000 in excess thereof) of such Holder's Notes at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest and Additional Amounts, if any, to but excluding the applicable purchase date (the "**Change of Control Purchase Price**"), subject to the rights of Holders of Notes to receive interest on the relevant interest payment date.

No later than 30 days following any Change of Control, the Issuer shall give notice in accordance with the procedures set forth in "*—Notices*" below, with a copy to the Holders' Representative, stating:

- (a) that a Change of Control has occurred or may occur and that each Holder has the right to require the Issuer to purchase such Holder's Notes at the Change of Control Purchase Price (the "**Change of Control Payment**");
- (b) the repurchase date (the repurchase date so stated the "**Change of Control Payment Date**"), which date shall be no earlier than 30 days nor later than 60 days from the date such notice is given;
- (c) the procedures determined by the Issuer, consistent with the Conditions of Issue, that a Holder must follow in order to have its Notes repurchased;
- (d) that, if such notice is given prior to the occurrence of a Change of Control, the Change of Control Offer is conditional on the occurrence of such Change of Control;
- (e) the circumstances and relevant facts regarding such Change of Control;
- (f) that any Note accepted for Change of Control Payment will cease to accrue interest after the Change of Control Payment Date unless the Change of Control Purchase Price is not paid; and
- (g) that any Note (or part thereof) not tendered will continue to accrue interest (the offer so being made the "**Change of Control Offer**").

The Issuer shall not be required to make the Change of Control Offer upon a Change of Control if (i) a third party makes an offer in a manner, at the times and otherwise in compliance with the requirements set forth in the Conditions of Issue applicable to a Change of Control Offer made by the Issuer and purchases all Notes validly tendered and not withdrawn under such Change of Control Offer or (ii) a notice of redemption has been given pursuant to the Conditions of Issue as described above under "*—Optional Redemption*", unless and until there is a default in payment of the applicable redemption price. Notwithstanding anything to the contrary contained herein, a Change of Control Offer may be made in advance of a Change of Control, conditioned upon the consummation of such Change of Control, if a definitive agreement is in place for the Change of Control at the time the Change of Control Offer is made.

The Issuer shall publicly announce the results of the Change of Control Offer or any offer made in lieu thereof in accordance with the procedures set forth in "*—Notices*" on or as soon as practicable after the Change of Control Payment Date.

Except as otherwise set forth under this heading "*—Repurchase at the Option of Holders upon a Change of Control*", the Conditions of Issue do not contain provisions that permit the Holders to require that the Issuer repurchase or redeem the Notes in the event of a takeover, recapitalization or similar transaction that may adversely affect the Holders if such transaction does not constitute a Change of Control. The Change of Control provisions described under this heading "*—Repurchase at the Option of Holders upon a Change of Control*" may deter certain mergers, tender offers and other takeover attempts involving the Issuer by increasing the capital required to effectuate such transactions.

The Issuer will comply with the requirements of any applicable securities laws or regulations in connection with the repurchase of Notes. To the extent that the provisions of any securities laws or regulations conflict with provisions of the Conditions of Issue, the Issuer will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control provisions of the Conditions of Issue by virtue of the conflict.

The definition of “Change of Control” includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of “all or substantially all” of the properties or assets of the Issuer and its Restricted Subsidiaries taken as a whole. There is no precise established definition of the phrase under applicable German law. Accordingly, the ability of a Holder to require the Issuer to repurchase its Notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of the Issuer and its Restricted Subsidiaries taken as a whole to another Person or group may be uncertain.

If a Change of Control Offer is made, there can be no assurance that the Issuer will have sufficient funds or other resources to pay the Change of Control Payment for all the Notes that might be delivered by Holders thereof seeking to accept the Change of Control Offer, see “*Risk Factors—Risks Related to the Notes—We may not be able to repay the Notes when due or to repurchase the Notes when we are required to do so pursuant to certain events constituting a change of control or otherwise, and the change of control provision contained in the Conditions of Issue may not necessarily afford you protection in the event of certain important corporate events*”.

Covenants

Limitation on Indebtedness

The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, directly or indirectly, Incur any Indebtedness (including Acquired Indebtedness); *provided*, however, that the Issuer and any Guarantor may Incur Indebtedness (including Acquired Indebtedness) if (i) on the date thereof and after giving *pro forma* effect thereto (including *pro forma* application of the proceeds thereof) (x) the Fixed Charge Coverage Ratio for the Issuer and its Restricted Subsidiaries would have been at least 2.0 to 1.0, and (y) to the extent such Indebtedness is purported to be secured by a Lien, the Consolidated Secured Debt Ratio of the Issuer and its Restricted Subsidiaries would be no greater than 4.0 to 1.0, and (ii) no Event of Default shall have occurred and be continuing or would occur as a consequence of Incurring the Indebtedness.

The foregoing paragraph shall not prohibit the Incurrence of the following Indebtedness:

- (i) Indebtedness of the Issuer or any Guarantor Incurred pursuant to and in compliance with a Credit Facility (including under ancillary facilities made available under such Credit Facility) in an aggregate principal amount not to exceed (A) the greater of (x) €80 million and (y) 45% of Consolidated EBITDA, plus (B) in the case of any refinancing of any Indebtedness permitted under this clause (i) or any portion thereof, the aggregate amount of fees, underwriting discounts, premiums and other costs and expenses Incurred in connection with such refinancing;
- (ii) Indebtedness of the Issuer or any Restricted Subsidiary owing to and held by the Issuer or any Restricted Subsidiary; *provided*, however, that
 - (A) if the Issuer or any Guarantor is the obligor on such Indebtedness and the payee is not the Issuer or a Guarantor, such Indebtedness must be unsecured and to the extent legally permitted (the Issuer and its Restricted Subsidiaries having completed all procedures required in the reasonable judgment of directors of the obligee or obligor to protect such Persons from any penalty or civil or criminal liability in connection with the subordination of such Indebtedness) expressly subordinated to the prior payment in full in cash of all obligations then due with respect to the Notes, in the case of the Issuer, or the relevant Note Guarantee, in the case of a Guarantor; and
 - (B) (x) any subsequent issuance or transfer of Capital Stock that results in any such Indebtedness being held by a Person other than the Issuer or a Restricted Subsidiary; and (y) any sale or other transfer of any such Indebtedness to a Person that is neither the Issuer nor a Restricted Subsidiary, shall be deemed, in each case, to constitute an Incurrence of such Indebtedness by the Issuer or such Restricted Subsidiary, as the case may be, that was not permitted by this clause (ii);

- (iii) any Refinancing Indebtedness Incurred in respect of any Indebtedness Incurred pursuant to the first paragraph of this covenant “—*Limitation on Indebtedness*” or clause (iv), (v), or (x) or this clause (iii);
- (iv) Indebtedness outstanding on the Issue Date after giving effect to the use of proceeds of the Notes (other than any Indebtedness Incurred under the Super Senior Revolving Credit Facility permitted under clause (i) above or any Indebtedness incurred pursuant to clause (ii), (vi) or (vii));
- (v) Indebtedness Incurred by the Issuer and the Guarantors (A) represented by the Notes to be issued on the Issue Date and the Note Guarantees in respect of these Notes, (B) under the Senior Secured EUR Facility and (C) the Senior Secured GBP Facility;
- (vi) Indebtedness under Hedging Obligations of the Issuer or any of its Restricted Subsidiaries that is Incurred in the ordinary course of business and not for speculative purposes;
- (vii) Indebtedness Incurred under a Guarantee by any Guarantor of Indebtedness of the Issuer or any Restricted Subsidiary to the extent that the guaranteed Indebtedness was permitted to be Incurred by another provision of this covenant “—*Limitation on Indebtedness*”; *provided*, however, that if the Indebtedness being guaranteed is subordinated to or *pari passu* with the Notes or a Note Guarantee, then the Guarantee must be subordinated or *pari passu*, as applicable, to the same extent as the Indebtedness guaranteed;
- (viii) Indebtedness Incurred after the Issue Date in respect of workers’ compensation claims, early retirement obligations, or social security or wage taxes in the ordinary course of business;
- (ix) Indebtedness of the Issuer or any Restricted Subsidiary represented by Capitalized Lease Obligations, Purchase Money Obligations or other Indebtedness incurred or assumed in connection with the acquisition or development of real or personal, movable or immovable, property or other assets (including Capital Stock), in each case incurred for the purpose of financing or refinancing all or any part of the purchase price, lease expense, rental payments (other than lease payments or rental expenses under a capitalized lease for reporting purposes under GAAP) or cost of design, installation, construction or improvement of property used in the business of the Issuer or such Restricted Subsidiary in an aggregate principal amount pursuant to this clause (ix), including any Refinancing Indebtedness that refinances such Indebtedness, not to exceed the greater of (A) €80 million and (B) 45% of Consolidated EBITDA at any time outstanding; *provided* that the principal amount of any Indebtedness permitted under this clause (ix) did not in each case at the time of incurrence exceed the Fair Market Value of the acquired or constructed asset or improvement so financed;
- (x) Indebtedness of a Restricted Subsidiary Incurred and outstanding on the date on which such Restricted Subsidiary was acquired by, or merged, consolidated, amalgamated or otherwise combined with (including pursuant to any acquisition of assets and assumption of related liabilities), the Issuer or any Restricted Subsidiary (other than Indebtedness Incurred (a) to provide all or any portion of the funds utilized to consummate any of the aforementioned transactions or series of related transactions or (b) otherwise in connection with, or in contemplation of, such transaction or series of related transactions); *provided*, however, that at the time such Restricted Subsidiary is acquired (or other transaction is made) by the Issuer or another Restricted Subsidiary, (A) the Issuer would have been able to Incur €1.00 of additional Indebtedness pursuant to clause (i)(x) of the first paragraph of this covenant “—*Limitation on Indebtedness*” or (B) the Fixed Charge Coverage Ratio of the Issuer would not be less than it was immediately prior to such acquisition or other transaction, in each case after giving *pro forma* effect to the Incurrence of such Indebtedness pursuant to this clause (x);
- (xi) Indebtedness of the Issuer or its Restricted Subsidiaries in respect of (a) letters of credit, surety, performance or appeal bonds, completion guarantees, judgment, advance payment, customs, VAT or other tax guarantees or similar instruments issued in the ordinary course of business of such Person and not in connection with the borrowing of money, including letters of credit or similar instruments in respect of self-insurance and workers compensation obligations, (b) the financing of insurance premiums in the ordinary course of business, (c) the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business, (d) inventory financing or any guarantees thereof and (e) any customary cash management, cash pooling or netting or setting-off arrangements (including, for

the avoidance of doubt, any Cash Management Liabilities) entered into in the ordinary course of business (as determined in good faith by the Issuer's Board of Directors); *provided*, however, that, in relation to the foregoing sub-clauses (a) through (d), upon the drawing (*Inanspruchnahme*) of such letters of credit or other instrument, such obligations are reimbursed within 30 days following such drawing (*Inanspruchnahme*);

- (xii) Indebtedness Incurred in any Qualified Securitization Financing;
- (xiii) Indebtedness of the Issuer or any Guarantor Incurred pursuant to and in compliance with a Credit Facility for purposes of financing any expansion projects in an aggregate amount not exceeding €75 million outstanding at any one time plus in the case of any refinancing of any Indebtedness permitted under this clause (xiii) or any portion thereof, the aggregate amount of fees, underwriting discounts, premiums and other costs and expenses Incurred in connection with such refinancing;
- (xiv) Indebtedness Incurred for purposes of financing any Restricted Payments set out under clause (xii) of the second paragraph of the “—*Limitation on Restricted Payments*” covenant and any related Minority Shareholder Payments (including any Indebtedness Incurred for purposes of financing any fees, underwriting discounts, premiums and other costs and expenses Incurred in connection with (or in anticipation of) a PIK Notes Refinancing Event); or
- (xv) in addition to the items referred to in clauses (i) through (xiv) above, Indebtedness of the Issuer and any Restricted Subsidiary in an aggregate amount not exceeding €20 million outstanding at any one time; *provided* that the aggregate amount of such Indebtedness that may be incurred pursuant to this clause (xv) by Restricted Subsidiaries that are not Guarantors shall not exceed €10 million outstanding at any one time.

For purposes of determining compliance with this “—*Limitation on Indebtedness*” covenant:

- (i) in the event that an item of Indebtedness meets the criteria of more than one of the types of Indebtedness described in the foregoing first paragraph of this covenant “—*Limitation on Indebtedness*” and clauses (i) through (xv) of the second paragraph of this covenant, the Issuer, in its sole discretion, will be permitted to classify and may from time to time reclassify such item of Indebtedness in any manner that complies with this covenant and include the amount and type of such Indebtedness in one or more of the foregoing clauses (i) through (xv) of the second paragraph of this covenant or pursuant to the first paragraph of this covenant; *provided* that all Indebtedness outstanding on the Issue Date under the Super Senior Revolving Credit Facility shall be deemed incurred under clause (i) of the second paragraph of this covenant and not under the first paragraph of this covenant or clause (iv) of the second paragraph of this covenant and may not later be reclassified;
- (ii) in the event Indebtedness relates to Guarantees of Indebtedness permitted by this covenant, such Guarantees shall not be treated as an additional Incurrence of Indebtedness;
- (iii) the principal amount of any Disqualified Stock of the Issuer or a Guarantor, or preferred stock of a Restricted Subsidiary that is not a Guarantor, will be equal to the greater of the maximum mandatory redemption or repurchase price (not including, in either case, any redemption or repurchase premium) or the liquidation preference thereof;
- (iv) the amount of any Indebtedness outstanding as of any date will be:
 - (A) the accreted value of the Indebtedness, in the case of any Indebtedness issued with original issue discount;
 - (B) the principal amount of the Indebtedness, in the case of any other Indebtedness; and
 - (C) in respect of Indebtedness of another Person secured by a Lien on the assets of the specified Person, the lesser of:
 - (x) the Fair Market Value of such assets at the date of determination; and
 - (y) the amount of the Indebtedness of the other Person;
- (v) with respect to Indebtedness incurred under a Credit Facility, reborrowings of amounts previously repaid pursuant to “cash sweep” or “clean down” provisions or any similar provisions under a Credit Facility that provide that Indebtedness is deemed to be repaid periodically shall

only be deemed for purposes of this covenant to have been incurred on the date such Indebtedness was first incurred and not on the date of any subsequent reborrowing thereof;

- (vi) for purposes of determining compliance with any euro-denominated restriction on the Incurrence of Indebtedness, the Euro Equivalent of the principal amount of Indebtedness denominated in another currency will be calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was Incurred, in the case of term Indebtedness, or first committed, in the case of Indebtedness Incurred under a revolving Credit Facility; *provided* that:
 - (A) the Euro Equivalent of the principal amount of any such Indebtedness outstanding on the Issue Date will be calculated based on the relevant currency exchange rate in effect on the Issue Date; and
 - (B) if for so long as any such Indebtedness is subject to an agreement intended to protect against fluctuations in currency exchange rates with respect to the currency in which such Indebtedness is denominated covering principal and interest on such Indebtedness, the amount of such Indebtedness, if denominated in euro will be the amount of the principal payment required to be made under such currency agreement and, otherwise, the Euro Equivalent of such amount plus the Euro Equivalent of any premium which is at such time due and payable but is not covered by such currency agreement; and
- (vii) the principal amount of any Refinancing Indebtedness Incurred in the same currency as the Indebtedness being refinanced will be the Euro Equivalent of the Indebtedness refinanced determined as of the date such Indebtedness was originally Incurred, except that to the extent that:
 - (A) such Euro Equivalent was determined based on an agreement intended to protect against fluctuations in currency exchange rates, in which case the Refinancing Indebtedness will be determined in accordance with sub-clause (B) of clause (v) above; and
 - (B) the principal amount of the Refinancing Indebtedness exceeds the principal amount of the Indebtedness being refinanced, in which case the Euro Equivalent of such excess will be determined on the date such Refinancing Indebtedness is being Incurred.

Limitation on Restricted Payments

The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, make a Restricted Payment if at the time of such Restricted Payment:

- (i) a Default or Event of Default shall have occurred and be continuing (or would result from such Restricted Payment);
- (ii) the Issuer is not able to Incur an additional €1.00 of Indebtedness pursuant to clause (i)(x) of the first paragraph described under “—*Covenants—Limitation on Indebtedness*”, after giving effect, on a *pro forma* basis, to such Restricted Payment; or
- (iii) the aggregate amount of such Restricted Payment and all other Restricted Payments (other than pursuant to (ii), (iv), (v), (vi), (vii), (viii), (ix), (x) and (xvi) and other than pursuant to (xv) in relation to a Restricted Payment pursuant to (xvi) and *provided* further that any Restricted Payment pursuant to (xii) shall only be included to the extent the Build-up Amount (as defined below) not falling below zero as a result of such Restricted Payment, or if already being negative at the time of such Restricted Payment, further decreasing such negative Build-up Amount) described under the second paragraph of this “—*Limitation on Restricted Payments*” covenant made subsequent to the Issue Date, would exceed the sum of (such sum, the “**Build-up Amount**”):
 - (A) 50% of Consolidated Net Income for the period (treated as one accounting period) from April 1, 2018 to the end of the most recent fiscal quarter ending prior to the date of such Restricted Payment for which consolidated financial statements of the Issuer are available (or, in case such Consolidated Net Income is a deficit, minus 100% of such deficit), plus
 - (B) 100% of the aggregate Net Cash Proceeds and the Fair Market Value of marketable securities received by the Issuer from the issue or sale of its Capital Stock (other than Disqualified Stock) or other capital contributions subsequent to the Issue Date (other than Net Cash Proceeds received from an issuance or sale of such Capital Stock to a Subsidiary of

the Issuer or an employee stock ownership plan, option plan or similar trust to the extent such sale to an employee stock ownership plan or similar trust is financed by loans from or Guaranteed by the Issuer or any Restricted Subsidiary unless such loans have been repaid with cash on or prior to the date of determination) or from the issuance or sale of Subordinated Shareholder Debt (other than an issuance or sale to a Subsidiary of the Issuer) excluding in any event Net Cash Proceeds received by the Issuer from the issue and sale of its Capital Stock or capital contributions to the extent applied to redeem Notes in compliance with the provisions set forth under “—*Optional Redemption*”; plus

- (C) to the extent that any Restricted Investment that was made after the Issue Date is (a) sold, disposed of or otherwise cancelled, liquidated or repaid (whether through repurchases, redemptions, repayments of principal, interest payments, dividends, distributions, returns of capital or other transfer of assets), 100% of the aggregate amount received in cash and the Fair Market Value of the property, assets or marketable securities received by the Issuer or any Restricted Subsidiary, (b) made in an entity that subsequently becomes a Restricted Subsidiary, 100% of the Fair Market Value of the Restricted Investment of the Issuer and its Restricted Subsidiaries as of the date such entity becomes a Restricted Subsidiary, or (c) in the case of a Guarantee made by the Issuer or any Restricted Subsidiary, that is fully and unconditionally released, an amount equal to the amount of such Guarantee to the extent such Guarantee reduced the capacity to make Restricted Payment pursuant to this clause (iii); plus
- (D) to the extent that any Unrestricted Subsidiary of the Issuer designated as such after the Issue Date is re-designated as a Restricted Subsidiary or is merged or consolidated into the Issuer or a Restricted Subsidiary, or all of the assets of such Unrestricted Subsidiary are transferred to the Issuer or a Restricted Subsidiary, the Fair Market Value of the property and assets received by the Issuer or Restricted Subsidiary or the Issuer’s Restricted Investment in such Subsidiary as of the date of such re-designation, merger, consolidation or transfer of assets, to the extent such investments reduced the restricted payments capacity under this clause (iii) and were not previously repaid or otherwise reduced; plus
- (E) 100% of any cash dividends or distributions received by the Issuer or a Restricted Subsidiary after the Issue Date from an Unrestricted Subsidiary to the extent that such dividends or distributions were not otherwise included in the Consolidated Net Income of the Issuer for such period; plus
- (F) 100% of the Net Cash Proceeds and the Fair Market Value of property or assets or marketable securities received by the Issuer or any Restricted Subsidiary from the issuance or sale (other than issuance or sale to the Issuer or any Subsidiary of the Issuer or an employee stock ownership plan, option plan or similar trust to the extent such sale to an employee stock ownership plan or similar trust is financed by loans from or Guaranteed by the Issuer or any Restricted Subsidiary unless such loans have been repaid with cash on or prior to the date of determination) by the Issuer or any Restricted Subsidiary subsequent to the Issue Date of any Indebtedness that has been converted into or exchanged for Capital Stock of the Issuer (other than Disqualified Stock) or Subordinated Shareholder Debt pursuant to provisions of such Indebtedness which existed at the time of its issuance (plus the amount of any cash, and the Fair Market Value of property or assets or marketable securities, received by the Issuer or any Restricted Subsidiary less the amount of any cash, and the Fair Market Value of property or assets or marketable securities, distributed by the Issuer or any Restricted Subsidiary, in each case upon such conversion or exchange).

The provisions of the preceding paragraph shall not prohibit:

- (i) the payment of any dividend within 60 days after the date of declaration thereof, if at such date of declaration such payment was permitted by the provisions of the preceding paragraph and such payment shall have been deemed to have been paid on such date of declaration;
- (ii) the purchase or other acquisition of Capital Stock made by exchange for, or out of the proceeds of the substantially concurrent sale of, Capital Stock of the Issuer (other than Disqualified Stock and other than Capital Stock issued or sold to a Subsidiary or an employee stock ownership plan or similar trust to the extent such sale is financed with loans or guaranteed by the Issuer or any Restricted Subsidiary unless such loans have been repaid with cash on or prior to the date of determination), Subordinated Shareholder Debt or a substantially concurrent contribution to the equity of the Issuer (other than by a Subsidiary of the Issuer);

- (iii) the purchase, redemption or other acquisition for value of Capital Stock in connection with the obligations under employee or management stock option agreements or other agreements to compensate management or employees; *provided* that such redemptions or repurchases pursuant to this clause will not exceed €1 million in the aggregate during any calendar year with any unused amounts in any calendar year being carried over to the immediately following calendar year but not any subsequent calendar years;
- (iv) the purchase, redemption, defeasance or other acquisition or retirement for value of any Subordinated Indebtedness for, or out of the Net Cash Proceeds of, the substantially concurrent sale of Capital Stock of the Issuer (other than Disqualified Stock and other than Capital Stock issued or sold to a Subsidiary or an employee stock ownership plan or similar trust to the extent such sale is financed with loans or guaranteed by the Issuer or any Restricted Subsidiary unless such loans have been repaid with cash on or prior to the date of determination) or for, or out of the Net Cash Proceeds of, a substantially concurrent Incurrence (other than to a Subsidiary) of Refinancing Indebtedness or Subordinated Shareholder Debt;
- (v) the repurchase of Capital Stock deemed to occur upon the exercise of stock options to the extent such Capital Stock represents a portion of the exercise price of those stock options;
- (vi) the making of any Restricted Payment in exchange for, or out of or with the Net Cash Proceeds of the substantially concurrent sale or issuance (other than to a Subsidiary of the Issuer) of, Capital Stock of the Issuer (other than Disqualified Stock), Subordinated Shareholder Debt or from the substantially concurrent contribution of common equity capital to the Issuer; *provided* that the amount of any such Net Cash Proceeds that are utilized for any such Restricted Payment will be excluded from clause (iii)(B) of the preceding paragraph;
- (vii) the declaration and payment of regularly scheduled or accrued dividends to holders of any class or series of Disqualified Stock of the Issuer or any preferred stock of any Restricted Subsidiary issued on or after the Issue Date in accordance with the “Limitation on Indebtedness” covenant;
- (viii) payments of cash, dividends, distributions, advances or other Restricted Payments by the Issuer or any of its Restricted Subsidiaries to allow the payment of cash in lieu of the issuance of fractional shares upon (x) the exercise of options or warrants or (y) the conversion or exchange of Capital Stock of any such Person;
- (ix) payments pursuant to any tax sharing agreement or arrangement among the Issuer and its Restricted Subsidiaries and other Persons with which the Issuer or any of its Restricted Subsidiaries is required or permitted to file a consolidated tax return or with which the Issuer or any of its Restricted Subsidiaries is a part of a group for tax purposes; *provided*, however, that such payments will not exceed the lesser of (A) the amount of tax that the Issuer and its Restricted Subsidiaries would owe on a stand-alone basis if the Issuer were filing a separate tax return (or a separate consolidated or combined tax return with its Restricted Subsidiaries that are part of that consolidated or combined group) and (B) the related tax liabilities of the Issuer and its Restricted Subsidiaries that are relieved thereby;
- (x) the payment of any Securitization Fees and purchases of Securitization Assets and related assets pursuant to a Securitization Repurchase Obligation in connection with a Qualified Securitization Financing;
- (xi) so long as no Default has occurred or is continuing (or would result therefrom), any Restricted PIK Interest Payment;
- (xii) so long as no Default has occurred and is continuing (or would result therefrom), any Restricted Payment to the Parent, *provided* that such Restricted Payment is solely applied, directly or indirectly, for the purpose of financing a PIK Notes Refinancing Event (including payment of any fees, premiums and other costs and expenses to be paid by the Parent or the PIK Issuer in connection with (or in anticipation of) a PIK Notes Refinancing Event);
- (xiii) so long as no Default has occurred or is continuing (or would result therefrom), any Restricted Payment to the Parent, *provided* that after giving effect to such Restricted Payment and any related Minority Shareholder Payment the Consolidated Net Leverage Ratio of the Issuer does not exceed 2.75 to 1.0;

- (xiv) so long as no Default has occurred and is continuing (or would result therefrom), other Restricted Payments in an amount not to exceed €40 million from the Issue Date;
- (xv) any Minority Shareholder Payment; and
- (xvi) dividends, loans, advances or distributions to any Holding Company or other payments by the Issuer or any Restricted Subsidiary in amounts equal to (without duplication):
 - (A) the amounts reasonably expected to be required (as determined in good faith by the Issuer's Board of Directors) for any Holding Company to pay any Holding Company Expenses or any Related Taxes; or
 - (B) amounts constituting or to be used for purposes of making payments to the extent specified in clauses (i) and (v) of the second paragraph under “—Covenants—Limitation on Affiliate Transactions”.

Limitation on Liens

The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, directly or indirectly, create, assume, or permit to subsist any Lien or other security interest upon any of its or any of its Restricted Subsidiaries' present or future property or assets, or assign or otherwise convey any right to receive income or profits therefrom, to secure any Indebtedness (including any guarantees or indemnities in respect thereof) (such Lien, the “**Initial Lien**”) except (a) in the case of any property or asset that does not constitute Collateral, (i) Permitted Liens and (ii) Liens that are not Permitted Liens if, contemporaneously with the incurrence of such Initial Lien, the Notes and the obligations under the Conditions of Issue (or a Note Guarantee in the case of Liens of a Guarantor) are directly secured equally and ratably with, or in the case of Liens with respect to Subordinated Indebtedness, with priority to, the Indebtedness secured by such Initial Lien for so long as such Indebtedness is so secured and (b) in the case of any property or asset constituting Collateral, Permitted Collateral Liens.

Limitation on Restrictions on Distributions from Restricted Subsidiaries

The Issuer shall not, and shall not permit any Restricted Subsidiary to, create or otherwise cause or permit to exist or become effective any consensual encumbrance or consensual restriction on the ability of any Restricted Subsidiary to:

- (a) pay dividends or make any other distributions on its Capital Stock or pay any Indebtedness or other obligations owed to the Issuer or any Restricted Subsidiary;
- (b) make any loans or advances to the Issuer or any Restricted Subsidiary; or
- (c) sell, transfer or lease any of its property or assets to the Issuer or any Restricted Subsidiary.

The foregoing paragraph shall not prohibit:

- (i) any encumbrance or restriction pursuant to the Notes, the Existing Notes, the Conditions of Issue, the conditions of issue governing the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities, the Security Documents or the Intercreditor Agreement or any other agreement in effect or entered into on the Issue Date;
- (ii) any encumbrance or restriction with respect to a Restricted Subsidiary pursuant to an agreement relating to any Capital Stock or Indebtedness Incurred by such Subsidiary on or prior to the date on which such Subsidiary was acquired by the Issuer (other than Capital Stock or Indebtedness Incurred as consideration in, or to provide all or any portion of the funds or credit support utilized to consummate the transaction or series of related transactions pursuant to which such Restricted Subsidiary became a Restricted Subsidiary of the Issuer or was acquired by the Issuer or in contemplation of the transaction) and outstanding on such date;
- (iii) any agreement or instrument (a “**Refinancing Agreement**”) effecting Refinancing Indebtedness or Disqualified Stock incurred pursuant to, or that otherwise extends, renews, refunds, refinances or replaces, an agreement or instrument or obligation in effect or entered into on the Issue Date (an “**Initial Agreement**”) or contained in any amendment, supplement or other modification to an Initial Agreement (an “**Amendment**”); *provided*, however, that the encumbrances and restrictions contained in any such Refinancing Agreement or Amendment are not materially less favorable to the holders of the Notes taken as a whole than the encumbrances and restrictions

contained in the Initial Agreement or Initial Agreements to which such Refinancing Agreement or Amendment relates (as determined in good faith by the Board of Directors or an Officer of the Issuer) and either (x) the Issuer determines that such encumbrances and restrictions will not adversely affect the Issuer's ability to make principal and interest payments on the Notes as and when they come due or (y) such encumbrances and restrictions apply only during the continuance of a default in respect of a payment or financial maintenance covenant relating to such Indebtedness;

- (iv) any restriction with respect to a Restricted Subsidiary imposed pursuant to an agreement entered into for the sale or disposition of all or substantially all the Capital Stock or assets of such Restricted Subsidiary pending the closing of such sale or disposition;
- (v) in the case of clause (c) of the first paragraph of this “—*Limitation on Restrictions on Distributions from Restricted Subsidiaries*” covenant, any encumbrance or restriction:
 - (A) that restricts in a customary manner the assignment or transfer of any property or asset that is subject to a lease, license or similar contract, or the assignment or transfer of any such lease, license or other contract entered into in the ordinary course of business;
 - (B) contained in mortgages, pledges or other security agreements permitted under and in compliance with the Conditions of Issue to the extent such encumbrances or restrictions restrict the transfer of the property subject so such mortgages, pledges or other security agreements; or
 - (C) pursuant to customary provisions restricting dispositions of real property interests set forth in any reciprocal easement agreements of the Issuer or any Restricted Subsidiary;
- (vi) encumbrances or restrictions arising or existing by reason of applicable law (including, but not limited to, any capital maintenance or similar corporate law restrictions applicable to such Restricted Subsidiary the breach of which would, as determined in good faith by the Board of Directors of the Issuer or relevant Restricted Subsidiary, result in any civil or criminal liability of any directors or officers of the relevant Restricted Subsidiary) or any applicable rule, regulation or order or governmental license, permit or concession;
- (vii) restrictions on cash or other deposits or net worth imposed by customers or suppliers or required by insurance, surety or bonding companies, in each case, under contracts (not evidencing or relating to Indebtedness) entered into in the ordinary course of business;
- (viii) Liens or other security interests permitted to be created, to be assumed or to subsist under the provisions of the “—*Limitation on Liens*” covenant that limit the right of the debtor to dispose of the assets subject to such Lien or other security interest;
- (ix) encumbrances or restrictions contained in any agreement relating to, or pertaining to, Hedging Obligations;
- (x) customary provisions limiting the disposition or distribution of assets or property in joint venture agreements, asset sale agreements, sale-leaseback agreements, stock sale agreements and other similar agreements in the ordinary course of business (including agreements entered into in connection with a Restricted Investment), entered into with the approval of the Issuer's Board of Directors which limitation is applicable only to the assets or property that are the subject of such agreements;
- (xi) encumbrance or restriction effected in connection with a Qualified Securitization Financing that, in the good faith determination of the Board of Directors of the Issuer, are necessary to effect such Qualified Securitization Financing;
- (xii) encumbrances or restrictions on the assets of or ownership interests in a joint venture, in each case contained in the terms of the agreement or agreements governing such joint venture; *provided*, however, that any such encumbrance or restriction (i) is customary in joint venture agreements, (ii) is not less favorable to the Issuer or any Restricted Subsidiary than to any other joint venturer and (iii) will not materially affect the Issuer's ability to make principal or interest payments on the Notes, as determined in good faith by the Board of Directors of the Issuer, at the time of entering into such agreement or agreements (and at the time of any modification of the terms of any such encumbrance or restriction); and

- (xiii) any encumbrance or restriction arising pursuant to an agreement or instrument relating to any Indebtedness Incurred by the Issuer or any Restricted Subsidiary permitted to be Incurred subsequent to the Issue Date pursuant to the “—*Limitation on Indebtedness*” covenant if the encumbrances and restrictions contained in any such agreement or instrument taken as a whole are not materially less favorable to the Holders of the Notes than (i) the encumbrances and restrictions contained in the conditions of issue governing the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities, the Intercreditor Agreement and the Security Documents, in each case, as in effect on the Issue Date or (ii) as is customary in comparable financings (as determined in good faith by the Board of Directors of the Issuer) and where, in the case of this clause (ii), either (x) the Issuer determines when such Indebtedness is Incurred that such encumbrances or restrictions will not adversely affect, in any material respect, the Issuer’s ability to make principal or interest payments on the Notes as and when they come due or (y) the Issuer determines that such encumbrances and restrictions apply only during the continuance of a default in respect of a payment or financial maintenance covenant relating to such Indebtedness.

Limitation on Sales of Assets

The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, make any Asset Disposition unless:

- (i) the Issuer or such Restricted Subsidiary receives consideration at least equal to the Fair Market Value (such Fair Market Value to be determined on the date of contractually agreeing to such Asset Disposition), as determined in good faith by the Board of Directors of the Issuer (including as to the value of all non-cash consideration), of the shares and assets subject to such Asset Disposition;
- (ii) in any such Asset Disposition, at least 75% of the consideration is in the form of cash or Cash Equivalents. For purposes of this “—*Limitation on Sales of Assets*” covenant, each of the following shall be deemed cash:
 - (A) any liabilities, as shown on the Issuer’s most recent consolidated balance sheet, of the Issuer or any Restricted Subsidiary (other than contingent liabilities, Disqualified Stock and liabilities that are by their terms subordinated to the Notes or any Note Guarantee) that are assumed by the transferee of any such assets pursuant to any agreement that releases the Issuer or the relevant Restricted Subsidiary from or indemnifies against further liability;
 - (B) any securities, notes or other obligations received by the Issuer or a Restricted Subsidiary from such transferee that are converted by the Issuer or the relevant Restricted Subsidiary into cash or Cash Equivalents within 180 days following the closing of the Asset Disposition, to the extent of the cash or Cash Equivalents received in that conversion;
 - (C) any Indebtedness of any Restricted Subsidiary that is no longer a Restricted Subsidiary as a result of such Asset Disposition, to the extent that the Issuer and each other Restricted Subsidiary are released from any Guarantee of such Indebtedness in connection with such Asset Disposition;
 - (D) consideration consisting of *Pari Passu* Indebtedness of the Issuer or any Restricted Subsidiary received from Persons who are not the Issuer or any Restricted Subsidiary; and
 - (E) any Designated Non Cash Consideration received by the Issuer or any Restricted Subsidiary having an aggregate Fair Market Value, taken together with all other Designated Non Cash Consideration received and designated pursuant to this clause (E) that is at any one time outstanding, not to exceed €15 million (with the Fair Market Value of each item of Designated Non Cash Consideration being measured at the time received and without giving effect to subsequent changes in value); and
- (iii) an amount equal to 100% of the Net Available Cash from such Asset Disposition is applied by the Issuer or the relevant Restricted Subsidiary, as the case may be:
 - (A) to the extent the Issuer elects, to prepay, repay or purchase (x) Indebtedness that is secured by a Permitted Collateral Lien that ranks equal to or in priority to any Lien on such assets securing the Notes or the Note Guarantees and is *pari passu* in right of payment with the Notes or the Note Guarantees (including, for the avoidance of doubt, under the Existing

Notes, the Super Senior Revolving Credit Facility and the Senior Secured Facilities and any purchase or redemption of any Notes (*provided* that any such purchase or redemption is at or above 100% of the principal amount of the Notes, plus accrued and unpaid interest and Additional Amounts, if any, to the date of such purchase or redemption)), (y) Indebtedness which is secured by a Lien (other than a Permitted Collateral Lien) on the asset which is the subject of the Asset Sale or (z) Indebtedness of a Restricted Subsidiary that is not a Guarantor (other than Indebtedness owed to the Issuer or an Affiliate of the Issuer), in each case, within 395 days from the date of the receipt of such Net Available Cash; *provided*, however, that in connection with any prepayment, repayment or purchase of Indebtedness pursuant to this sub-clause (A), the Issuer or such Restricted Subsidiary will cause the related commitment (if any) to be permanently reduced in an equal amount to the principal amount so prepaid, repaid or purchased;

- (B) to the extent of the balance of such Net Available Cash after application in accordance with the foregoing sub-clause (A), to the extent the Issuer elects, to invest in Additional Assets within 395 days from the date of receipt of such Net Available Cash or pursuant to binding arrangements in place within such 395 day period; *provided* that such binding arrangement is completed within 180 days of such 395 day period;
- (C) to the extent of the balance of such Net Available Cash after application in accordance with the foregoing sub-clauses (A) and (B), to the extent the Issuer elects, to make a capital expenditure within 395 days from the date of receipt of such Net Available Cash or pursuant to binding arrangements in place within such 395 day period; *provided* that such binding arrangement is completed within 180 days of such 395 day period; or
- (D) to the extent of the balance of such Net Available Cash after application in accordance with the foregoing sub-clauses (A) to (C) (the “**Excess Proceeds**”), to make an offer to the Holders and any other Pari Passu Indebtedness (to the extent the terms of such Pari Passu Indebtedness so require) on a *pro rata* basis to purchase the Notes at a purchase price equal to 100% of the principal amount, plus accrued and unpaid interest and Additional Amounts, if any, to the date of purchase and such Pari Passu Indebtedness pursuant to and subject to the Conditions of Issue (an “**Asset Disposition Offer**”); *provided*, however, that in connection with any prepayment, repayment or purchase of Indebtedness pursuant to the foregoing sub-clause (A), the Issuer or the relevant Restricted Subsidiary shall retire such Indebtedness and shall cause the related loan commitment (if any) to be permanently reduced in an amount equal to the principal amount so prepaid, repaid or purchase.

Notwithstanding the foregoing provisions of this “—*Limitation on Sales of Assets*” covenant, the Issuer or the relevant Restricted Subsidiary shall not be required to apply any Excess Proceeds in accordance with sub-clause (D) above unless the aggregate Excess Proceeds from all Asset Dispositions which is not applied in accordance with the foregoing sub-clauses (A) to (C) exceeds €15 million. To the extent that the aggregate amount of Notes and Pari Passu Indebtedness so validly tendered and not properly withdrawn pursuant to an Asset Disposition Offer is less than the Excess Proceeds, the Issuer may use any remaining Excess Proceeds for general corporate purposes, subject to other covenants contained in the Conditions of Issue. If the aggregate principal amount of Notes surrendered by Holders thereof and other Pari Passu Indebtedness surrendered by holders or lenders, collectively, exceeds the amount of Excess Proceeds, the Issuer shall accept the Notes and Pari Passu Indebtedness to be purchased on a *pro rata* basis of the aggregate principal amount of tendered Notes and Pari Passu Indebtedness in accordance with the terms of the Asset Disposition Offer. Upon completion of such Asset Disposition Offer, the amount of Excess Proceeds shall be reset at zero. The Asset Disposition Offer will remain open for a period of 20 Business Days following its commencement, except to the extent that a longer period is required by applicable law (the “**Asset Disposition Offer Period**”). No later than five Business Days after the termination of the Asset Disposition Offer Period (the “**Asset Disposition Purchase Date**”), the Issuer will purchase the principal amount of Notes and Pari Passu Indebtedness required to be purchased pursuant to this covenant (the “**Asset Disposition Offer Amount**”) or, if less than the Asset Disposition Offer Amount has been so validly tendered, all Notes and Pari Passu Indebtedness validly tendered in response to the Asset Disposition Offer. On or before the Asset Disposition Purchase Date, the Issuer will, to the extent lawful, accept for payment, on a *pro rata* basis to the extent necessary, the Asset Disposition Offer Amount of Notes and Pari Passu Indebtedness or portions of Notes and Pari Passu Indebtedness so validly tendered and not properly withdrawn pursuant to the Asset Disposition Offer, or if less than the Asset Disposition Offer Amount has been validly tendered and not properly withdrawn, all Notes and Pari Passu Indebtedness so validly

tendered and not properly withdrawn, in each case with a principal amount of €100,000 or in integral multiples of €1,000 in excess thereof. The Issuer will promptly (but in any case not later than five Business Days after termination of the Asset Disposition Offer Period) mail or deliver to each tendering Holder of Notes or holder or lender of Pari Passu Indebtedness, as the case may be, an amount equal to the purchase price of the Notes or Pari Passu Indebtedness so validly tendered and not properly withdrawn by such holder or lender, as the case may be, and accepted by the Issuer for purchase. In addition, the Issuer will take any and all other actions required by the agreements governing the Pari Passu Indebtedness. The Issuer will publicly announce the results of the Asset Disposition Offer on the Asset Disposition Purchase Date.

Limitation on Affiliate Transactions

The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, directly or indirectly, enter into any transaction or series of related transactions (including the rendering of services) with any Affiliate of the Issuer (any such transaction or series of related transactions, an “**Affiliate Transaction**”) involving aggregate consideration in excess of €5 million unless:

- (i) the terms of such Affiliate Transaction are no less favorable to the Issuer or such Restricted Subsidiary, as the case may be, than those that could be obtained in a comparable transaction with a Person who is not an Affiliate; and
- (ii) in the event such Affiliate Transaction involves aggregate consideration in excess of €10 million, the terms of such transaction have been approved by a majority of the Disinterested Directors of the Board of Directors of the Issuer (and such majority determines that such Affiliate Transaction satisfies the criteria in clause (i)).

The provisions of the foregoing paragraph shall not apply to:

- (i) transactions pursuant to any employee or director compensation arrangements or benefit plans entered into by the Issuer or any of its Restricted Subsidiaries in the ordinary course of business of the Issuer or such Restricted Subsidiary;
- (ii) any transaction effected as part of a Qualified Securitization Financing;
- (iii) any Affiliate Transaction between the Issuer and a Restricted Subsidiary or between Restricted Subsidiaries;
- (iv) any Restricted Payment (other than a Restricted Investment) permitted to be made pursuant to the provisions set forth under “—*Covenants—Limitation on Restricted Payments*” above;
- (v) the payment of reasonable and customary fees paid to, and indemnity provided on behalf of, officers, directors or employees of the Issuer or any Restricted Subsidiary of the Issuer;
- (vi) the incurrence of Subordinated Shareholder Debt;
- (vii) transactions pursuant to, or contemplated, by any agreement in effect on the Issue Date and transactions pursuant to any amendment (including to change any party to the agreement), modification or extension to such agreement, so long as such amendment, modification or extension, taken as a whole, is not more disadvantageous to the Holders than the original agreement as in effect on the Issue Date;
- (viii) any issuance of Capital Stock (other than Disqualified Stock) of the Issuer to Affiliates of the Issuer;
- (ix) transactions (x) with the Issuer and its Subsidiaries in the ordinary course of business, consistent with past practice and as otherwise permitted hereunder or (y) for which the Issuer shall have received a written opinion from an independent investment bank or an accounting or appraisal firm of internationally recognized standing or other recognized independent expert of international standing with experience appraising the terms and conditions of the type of transaction or series of related transactions for which an opinion is required, stating that such Affiliate Transaction is (a) fair to the Issuer or such Restricted Subsidiary from a financial point of view or (b) not materially less favorable than those that might reasonably have been obtained in a comparable transaction at such time on an arm’s-length basis from a Person that is not an Affiliate;

- (x) (x) transactions with customers, clients, suppliers, or purchasers or sellers of goods or services or providers of employees or other labor, in each case in the ordinary course of trading, or (y) any transaction in the ordinary course of business between the Issuer or any of its Restricted Subsidiaries and any Person that is an Affiliate of the Issuer solely because a director of such Person is also a director of the Issuer or any direct or indirect parent of the Issuer, in each case, *provided* (a) such transaction is otherwise in compliance with the terms of the Conditions of Issue and (b) is on terms at least as favorable as could have been obtained at such time from an unaffiliated Person, in the reasonable determination of the members of the Board of Directors or an Officer of the Issuer *provided* such Officer has been delegated such power by the Board of Directors in the prior twelve months (provided no member of the Board of Directors or Officer of the Issuer with an interest in such transaction may participate in such determination); and
- (xi) any payments or other transactions pursuant to a tax sharing agreement between or among the Issuer and any Restricted Subsidiary and any other Person with which the Issuer or any of its Restricted Subsidiaries files a consolidated tax return or with which the Issuer or any of its Restricted Subsidiaries is part of a group for tax purposes or any tax advantageous group contribution made pursuant to applicable legislation; *provided*, however, that such payments or transactions will not exceed the lesser of (i) the amount of tax that the Issuer and its Restricted Subsidiaries would owe on a stand-alone basis if the Issuer were filing a separate tax return (or a separate consolidated or combined tax return with its Restricted Subsidiaries that are part of that consolidated or combined group) and (ii) the related tax liabilities of the Issuer and its Restricted Subsidiaries that are relieved thereby.

Reports

So long as any Notes are outstanding, the Issuer will furnish in English to the Holders (each with a copy to the Holders' Representative) in accordance with clause (ii) of "—Notices":

- (1) within 120 days after the end of the Issuer's fiscal year beginning with the fiscal year ending December 31, 2018, annual reports containing the following information: (a) audited consolidated balance sheet of the Issuer as of the end of the two most recent fiscal years and audited consolidated income statements and statements of cash flow of the Issuer for the two most recent fiscal years, including complete footnotes to such financial statements and the report of the independent auditors on the financial statements; (b) *pro forma* income statement and balance sheet information of the Issuer, together with explanatory footnotes, for any material acquisitions, dispositions or recapitalizations that have occurred since the beginning of the most recently completed fiscal year as to which such annual report relates (unless such *pro forma* information has been provided in a previous report pursuant to clause 2 or 3 below (*provided* that such *pro forma* financial information will be provided only to the extent available without unreasonable expense, in which case, the Issuer will provide, in the case of a material acquisition, acquired company financials to the extent available without unreasonable expense)); (c) an operating and financial review of the audited financial statements, including a discussion of the results of operations (including a discussion by business segment to the extent segment reporting is required under GAAP), financial condition and liquidity and capital resources, and a discussion of material commitments and contingencies and critical accounting policies; (d) a description of the business, management and shareholders of the Issuer, material affiliate transactions and material debt instruments (unless such contractual arrangements were described in a previous annual or quarterly report, in which case the Issuer need describe only any material changes); and (e) material risk factors and material recent developments;
- (2) within 60 days following the end of each of the first three fiscal quarters in each fiscal year of the Issuer beginning with the fiscal quarter ending March 31, 2018, quarterly reports containing the following information: (a) an unaudited condensed consolidated balance sheet as of the end of such quarter and unaudited condensed statements of income and cash flow for the quarterly and year to date periods ending on the unaudited condensed balance sheet date, and, the comparable prior year periods for the Issuer, together with condensed footnote disclosure; (b) *pro forma* income statement and balance sheet information of the Issuer, together with explanatory footnotes, for any material acquisitions, dispositions or recapitalizations that have occurred since the beginning of the most recently completed fiscal quarter as to which such quarterly report relates (*provided* that such *pro forma* financial information will be provided only to the extent available without unreasonable expense, in which case, the Issuer will provide, in the case of a

material acquisition, acquired company financials (to the extent available without unreasonable expense)); (c) an operating and financial review of the unaudited financial statements (including a discussion by business segment to the extent segment reporting is required under GAAP), including a discussion of the consolidated financial condition and results of operations of the Issuer and any material change between the current quarterly period and the corresponding period of the prior year; and (d) material recent developments; and

- (3) promptly after the occurrence of any material acquisition, disposition or restructuring of the Issuer and the Restricted Subsidiaries, taken as a whole, or any changes of the chief executive officer, chief financial officer or managing director of the Issuer or change in auditors of the Issuer or any other material event that the Issuer announces publicly, a report containing a description of such event;

provided, however, that the reports set forth in clauses (1), (2) and (3) above will not be required to (i) contain any reconciliation to U.S. generally accepted accounting principles or IFRS or (ii) include separate financial statements for any Guarantors or non-guarantor Subsidiaries of the Issuer.

In addition, if the Issuer has designated any of its Subsidiaries as Unrestricted Subsidiaries and such Subsidiaries are Significant Subsidiaries, then the quarterly and annual financial information required by the preceding paragraph will include a reasonably detailed presentation, either on the face of the financial statements or in the footnotes thereto, of the financial condition and results of operations of the Issuer and its Restricted Subsidiaries separate from the financial condition and results of operations of the Unrestricted Subsidiaries of the Issuer.

All financial statements shall be prepared in accordance with GAAP. Except as provided for above, no report need to include separate financial statements for the Issuer or Subsidiaries of the Issuer or any disclosure with respect to the results of operations or any other financial or statistical disclosure not of a type included in the offering memorandum relating to the Existing Notes.

In addition, for so long as any Notes remain outstanding, the Issuer has agreed that it will furnish to the Holders and to securities analysts and prospective investors, upon their request, the information required to be delivered pursuant to Rule 144A(d)(4) under the U.S. Securities Act.

Contemporaneously with the furnishing of each such report set forth in clauses (1), (2) and (3) above, the Issuer will also (a) post such report on the Issuer's website and (b) make available copies of such reports to the Listing Agent, for the purpose of sending to The International Stock Exchange Authority Limited (to the extent required by the rules of The International Stock Exchange Authority Limited). Notwithstanding the foregoing, the Issuer will be deemed to have provided such information to the Holders' Representative, the Holders, prospective purchasers and beneficial owners of the Notes if such information referenced above in clauses (1), (2) and (3) above has been posted on the Issuer's website.

Merger and Consolidation

The Issuer

The Issuer shall not, directly or indirectly, consolidate with or merge with or into another Person, or convey, transfer or lease all or substantially all the properties and assets of the Issuer and its Restricted Subsidiaries taken as a whole, in one or more related transactions, to another Person, unless:

- (i) the resulting, surviving or transferee Person (the "**Successor Company**") will be a Person organized and existing under the laws of any member state of the European Union as of December 31, 2003, Switzerland, the United States of America or the District of Columbia, and the Successor Company (if not the Issuer) will expressly assume in appropriate documentation delivered to the Holders' Representative all the obligations of the Issuer under the Notes, the Security Documents, the Intercreditor Agreement, the Agency Agreement and the Conditions of Issue;
- (ii) immediately after giving effect to such transaction (and treating any Indebtedness that becomes an obligation of the Successor Company or any Subsidiary of the Successor Company as a result of such transaction as having been Incurred by the Successor Company or such Subsidiary at the time of such transaction), no Default or Event of Default shall have occurred and be continuing;

- (iii) immediately after giving effect to such transaction and any related financings the Successor Company would be able to Incur at least an additional €1.00 of Indebtedness pursuant to clause (i)(x) of the first paragraph of the “—*Limitation on Indebtedness*” covenant above;
- (iv) each Guarantor shall have delivered to the Holders’ Representative a confirmation that its Note Guarantee shall apply to such Person’s obligations in respect of the Notes and the Agency Agreement;
- (v) if any such transaction results in the Issuer or Successor Company being incorporated in a jurisdiction other than Germany, the Board of Directors of the Issuer and the Successor Company will have adopted a resolution stating that the transaction effecting such a change in jurisdiction was not being entered into for a purpose which included subjecting the Issuer or the Successor Company, as the case may be, to more favorable bankruptcy, insolvency, laws relating to creditors rights or similar laws; and
- (vi) the Issuer shall deliver to the Holders’ Representative an Officers’ Request Certificate and Opinion of Counsel, in each case, stating that such consolidation, merger, conveyance, transfer or lease and such assumption by the Successor Company comply with this covenant and the Opinion of Counsel shall state in addition that each of the Note Guarantees shall apply to such Person’s obligations in respect of the Notes and the Agency Agreement to the same or greater extent than they applied to the Notes and the Agency Agreement immediately prior to such transaction. The Holders’ Representative shall be entitled to accept such Opinion of Counsel as sufficient evidence of compliance with this paragraph and shall not be obligated to independently investigate whether the requirements of this paragraph are otherwise met.

Guarantors

In addition, the Issuer shall not permit any Guarantor, directly or indirectly, to consolidate with or merge with or into another Person, or convey, transfer or lease all or substantially all the properties and assets of such Guarantor and its Restricted Subsidiaries taken as a whole, in one or more related transactions, to another Person, unless:

- (i) either:
 - (A) the resulting, surviving or transferee Person will be a Person organized and existing under the laws of any member state of the European Union on 31 December 2003, Switzerland, the United States of America, the District of Columbia or the jurisdiction in which it was originally organized, and such Person (if not a Guarantor) will expressly assume in an appropriate documentation and delivered to the Holders’ Representative, all the obligations of such Guarantor under its Note Guarantee; or
 - (B) the transaction constitutes a sale or other disposition (including by way of consolidation or merger) of the Guarantor or the conveyance, transfer or lease of all or substantially all the properties and assets of the Guarantor (in each case other than to the Issuer or a Restricted Subsidiary) otherwise permitted by the Conditions of Issue;
- (ii) immediately after giving effect to, and as a result of, such transaction no Default or Event of Default shall have occurred and be continuing;
- (iii) in the case of clause (i)(A) above, if any such transaction results in the Guarantor or Successor Company being incorporated in a jurisdiction other than the jurisdiction in which it was organized as of the Issue Date, the Board of Directors of the Guarantor and the Successor Company will have adopted a resolution stating that the transaction effecting such a change in jurisdiction was not being entered into for a purpose which included subjecting the Guarantor or the Successor Company, as the case may be, to more favorable bankruptcy, insolvency, laws relating to creditors rights or similar laws; and
- (iv) the Issuer and such Guarantor shall deliver to the Holders’ Representative in accordance with “*Notices*” an Officers’ Request Certificate and Opinion of Counsel, in each case, stating that such consolidation, merger, conveyance, transfer or lease and, in the case of clause (i)(A) only, such assumption by the resulting, surviving or transferee Person comply with this covenant and the Opinion of Counsel shall state in addition that the Note Guarantee by the resulting, surviving or transferee Person shall apply to such Person’s obligations in respect of the Notes and the Agency Agreement to the same or greater extent than they applied to the Notes and the Agency

Agreement immediately prior to such transaction. The Holders' Representative shall be entitled to accept such Opinion of Counsel as sufficient evidence of compliance with this paragraph and shall not be obligated to independently investigate whether the requirements of this paragraph are otherwise met.

The successor to any Guarantor will succeed to, and be substituted for, such Guarantor under the applicable Note Guarantee.

This “—*Merger and Consolidation*” covenant will not apply to (a) any consolidation, merger or transfer of assets of any Restricted Subsidiary that is not a Guarantor into the Issuer or a Guarantor, (b) any consolidation, merger or transfer of assets among Guarantors, or (c) any consolidation, merger or transfer of assets among the Issuer and any Guarantor; *provided* that, clauses (i) and (vi) of the first paragraph of this covenant will be complied with. Clauses (ii) and (iii) of the first paragraph and clause (ii) of the second paragraph of this covenant will not apply to any merger or consolidation of the Issuer or any Guarantors with or into an Affiliate solely for the purpose of reincorporating the Issuer or such Guarantor in another jurisdiction.

If and for so long as the Notes are listed on the Official List of The International Stock Exchange and the rules of the International Stock Exchange so require, the Issuer shall publish notice of the occurrence of any of the events described in this “—*Merger and Consolidation*” covenant in accordance with the prevailing rules of The International Stock Exchange Authority Limited.

Future Guarantors

The Issuer shall cause each Restricted Subsidiary that is not a Guarantor and that, (a) after the Issue Date, Guarantees any Indebtedness of the Issuer or any Guarantor or (b) is a Significant Subsidiary, to execute and deliver concurrently to the Holders' Representative a Note Guarantee pursuant to which such Restricted Subsidiary will Guarantee payment of the Notes, which Note Guarantee will be senior to or *pari passu* with such Restricted Subsidiary's Guarantee of such other Indebtedness.

Any such Restricted Subsidiary will, simultaneously with the execution of such Note Guarantee, pledge its existing and future assets to the extent such assets secure the obligations under the Super Senior Revolving Credit Facility (in particular, subject to the Agreed Security Principles as set forth therein) to secure the Notes and its Note Guarantee, and the Issuer will cause all of the Capital Stock in such Restricted Subsidiary owned by the Issuer and its Restricted Subsidiaries to be pledged to secure the Notes and the Note Guarantees.

Each Additional Note Guarantee will be limited as necessary to recognize certain defenses generally available to guarantors (including those that relate to general statutory limitations, capital maintenance, corporate benefit, fraudulent preference, financial assistance or thin-capitalisation rules or other similar laws or regulations (or analogous restrictions) of any applicable jurisdiction). See “*Risk Factors—Risks Related to the Notes—Each Guarantee and the Collateral will be subject to certain limitations on enforcement and may be limited by applicable laws or subject to certain defenses that may limit its validity and enforceability*” and “*Certain Insolvency Law Considerations and Limitations on the Validity and Enforceability of the Guarantees and Security Interests*”.

Notwithstanding the foregoing, the Issuer shall not be obligated to cause such Restricted Subsidiary to Guarantee the Notes to the extent that such Note Guarantee by such Restricted Subsidiary would reasonably be expected to give rise to or result in a violation of applicable law which, in any case, cannot be prevented or otherwise avoided through measures reasonably available to the Issuer or the Restricted Subsidiary (including “whitewash” or similar procedures) or any liability for the officers, directors or shareholders of such Restricted Subsidiary.

Limitation on Lines of Business

The Issuer shall not, and shall not permit any Restricted Subsidiary to, engage in any business other than a Related Business, except as would not be material to the Issuer and its Restricted Subsidiaries taken as a whole.

Maintenance of Listing

The Issuer will use its commercially reasonable efforts to obtain and maintain the listing of the Notes on the International Stock Exchange for so long as any Notes are outstanding; *provided* that if the Issuer is

unable to obtain admission to such listing or if at any time the Issuer determines that it will not maintain such listing, it will use its commercially reasonable efforts to obtain and maintain a listing of the Notes on another recognized stock exchange for high yield issuers (which may be another stock exchange that is not regulated by the European Union).

Payments for Consent

The Issuer shall not, and shall not cause or permit any Restricted Subsidiary to, directly or indirectly, pay or cause to be paid any consideration to or for the benefit of any Holder for or as an inducement to any consent or vote with respect to any waiver or amendment of any of the terms or provisions of the Conditions of Issue, the Notes, the Agency Agreement, the Security Documents, the Intercreditor Agreement or any Note Guarantee unless (and to the extent such offer or payment is not prohibited by applicable law) such consideration is offered to be paid and is paid to all Holders that consent, waive or agree to amend in the time frame set forth in the solicitation documents relating to such consent, waiver or amendment.

Notwithstanding the foregoing, the Issuer and its Restricted Subsidiaries shall be permitted, in any offer or payment of consideration for, or as an inducement to, any consent, waiver or amendment of any of the terms or provisions of the Conditions of Issue, to exclude the Holders in any jurisdiction where (A)(i) the solicitation of such consent, waiver or amendment, including in connection with an offer to purchase for cash, or (ii) the payment of the consideration therefor would require the Issuer or any of its Restricted Subsidiaries to file a registration statement, prospectus or similar document under any applicable securities laws (including, but not limited to, the U.S. federal securities laws and the laws of the European Union or its member states), which the Issuer in its sole discretion determines (acting in good faith) would be materially burdensome (it being understood that it would not be materially burdensome to file the consent document(s) used in other jurisdictions, any substantially similar documents or any summary thereof with the securities or financial services authorities in such jurisdiction) or (B) such solicitation would otherwise not be permitted under applicable law in such jurisdiction.

Restricted and Unrestricted Subsidiaries

As of the issue date of the Additional Notes, all of the Issuer's Subsidiaries shall be Restricted Subsidiaries.

The Board of Directors of the Issuer may designate any Subsidiary of the Issuer (including any newly acquired or newly formed Subsidiary or a Person becoming a Subsidiary through merger, consolidation or other business combination transaction, or Investment therein) to be an Unrestricted Subsidiary only if:

- (i) such Subsidiary or any of its Subsidiaries does not own any Capital Stock or Indebtedness of or have any Investment in, or own or hold any Lien on any property of, any other Subsidiary of the Issuer which is not a Subsidiary of the Subsidiary to be so designated or otherwise an Unrestricted Subsidiary;
- (ii) no Indebtedness of such Subsidiary or any of its Subsidiaries shall, at the date of designation, or at any time thereafter, constitute Indebtedness pursuant to which the lender has recourse to any of the assets of the Issuer or any Restricted Subsidiary;
- (iii) such Subsidiary is a Person with respect to which neither the Issuer nor any Restricted Subsidiary has any direct or indirect obligation to:
 - (A) subscribe for additional Capital Stock of such Person; or
 - (B) maintain or preserve such Person's financial condition or cause such person to achieve any specified levels of operating results;
- (iv) all outstanding Investments by the Issuer and the Restricted Subsidiaries (except to the extent repaid) in the Subsidiary so designated will be deemed to be Restricted Payments in an amount which shall be the Restricted Payment's Fair Market Value at the time of such transfer and a Restricted Payment in such amount would be permitted at such time under the covenant set forth under "*—Limitations on Restricted Payments*" or the definition of "Permitted Investments" and if such Subsidiary otherwise meets the definition of an "Unrestricted Subsidiary"; and
- (v) after giving effect to, and as a result of, such designation there will be no Default or Event of Default.

The Board of Directors of the Issuer may designate any Unrestricted Subsidiary to be a Restricted Subsidiary; provided, however, that such designation shall be deemed to be an Incurrence of Indebtedness by a Restricted Subsidiary of any outstanding Indebtedness of such Unrestricted Subsidiary and such designation shall be permitted only if (i) immediately after giving effect to such designation, no Default or Event of Default shall have occurred and be continuing and (ii) the Issuer could Incur at least €1.00 of additional Indebtedness as described in clause (i)(x) of the first paragraph under “—Covenants—Limitation on Indebtedness”, on a *pro forma* basis taking into account such designation as if it had occurred at the beginning of the applicable reference period.

Any such designation by the Board of Directors of the Issuer shall be evidenced to the Holders’ Representative by filing with the Holders’ Representative a resolution of the Board of Directors of the Issuer giving effect to such designation and an Officers’ Request Certificate certifying that such designation complies with the foregoing conditions. The Holders’ Representative shall forward such resolution of the Board of Directors of the Issuer and the Officers’ Request Certificate to the Holders in accordance with the procedures set forth in “—Notices”.

Impairment of Security Interest

The Issuer will not, and will not cause or permit any of its Restricted Subsidiaries to, take or knowingly or negligently omit to take, any action which action or omission might or would have the result of materially impairing the security interest with respect to the Collateral (it being understood that the incurrence of Liens on the Collateral permitted by the definition of “Permitted Collateral Liens” shall under no circumstances be deemed to materially impair the security interest with respect to the Collateral) for the benefit of the Holders’ Representative and the Holders, and the Issuer will not, and will not cause or permit any of its Restricted Subsidiaries to, grant to any Person other than the Security Agent, for the benefit of the Holders and the other beneficiaries described in the Security Documents and the Intercreditor Agreement, any interest whatsoever in any of the Collateral; *provided that*

- (i) nothing in this provision shall restrict the discharge or release of the Collateral in accordance with the Conditions of Issue, the Intercreditor Agreement and the Security Documents; and
- (ii) the Issuer and its Restricted Subsidiaries may incur Permitted Collateral Liens; and *provided* further, however, that no Security Document may be amended, extended, renewed, restated, supplemented or otherwise modified or replaced, unless contemporaneously with such amendment, extension, replacement, restatement, supplement, modification or renewal, the Issuer delivers to the Security Agent either:
 - (A) a solvency opinion from an accounting, appraisal or investment banking firm of national standing confirming the solvency of the Issuer and its Subsidiaries, taken as a whole, after giving effect to any transactions related to such amendment, extension, renewal, restatement, supplement, release, modification or replacement;
 - (B) a certificate from the chief executive officer, chief financial officer or the Board of Directors of the relevant Person, which confirms the solvency of the person granting Security Interest after giving effect to any transactions related to such amendment, extension, renewal, restatement, supplement, modification or replacement; or
 - (C) an Opinion of Counsel (subject to customary exceptions and qualifications), confirming that, after giving effect to any transactions related to such amendment, extension, renewal, restatement, supplement, modification or replacement, the Lien or Liens securing the Notes created under the Security Documents so amended, extended, renewed, restated, supplemented, modified or replaced are valid and perfected Liens not otherwise subject to any limitation, imperfection or new hardening period, in equity or at law, and that such Lien or Liens were not otherwise subject to immediately prior to such amendment, extension, renewal, restatement, supplement, modification or replacement.

Notwithstanding the preceding paragraph which shall not apply to the actions described in this paragraph, at the direction of the Issuer and without the consent of any Holder or the Holders’ Representative, the Security Agent may from time to time enter into one or more amendments to the Security Documents to: (i) cure any ambiguity, omission, defect or inconsistency therein; (ii) provide for Permitted Collateral Liens to the extent permitted by the Conditions of Issue; (iii) add to the Collateral; (iv) comply with the terms of the Intercreditor Agreement or any Additional Intercreditor Agreement; (v) evidence the succession of another Person to the Issuer and the assumption by such successor of the obligations under the Conditions

of Issue, the Notes and the Security Documents, in each case, in accordance with “—*Covenants—Merger and Consolidation*”; (vi) provide for the release of property and assets constituting Collateral from the Lien of the Security Documents or the release of a Note Guarantee granted by a Guarantor, in each case, in accordance with (and if permitted by) the terms of the Conditions of Issue and the Intercreditor Agreement; (vii) conform the Security Documents to this “*Description of the Notes*”; (viii) evidence and provide for the acceptance of the appointment of a successor Holders’ Representative or Security Agent; or (ix) make any other change thereto that does not adversely affect the rights of the Holders in any material respect.

In the event that the Issuer complies with this covenant, the Holders’ Representative and the Security Agent shall (subject to customary protections and indemnifications) consent to such amendment, extension, renewal, restatement, supplement, modification or replacement with no need for instructions from Holders.

Security

The Issuer shall, and shall procure that each Guarantor shall, at its own expense, execute and do all such acts and things and provide such assurances as the Security Agent may reasonably require

- (i) for registering any Security Documents in any required register and for perfecting or protecting the security intended to be afforded by such Security Documents; and
- (ii) if such Security Documents have become enforceable, for facilitating the realization of all or any part of the assets which are subject to such Security Documents and for facilitating the exercise of all powers, authorities and discretions vested in the Security Agent or in any receiver of all or any part of those assets. The Issuer shall, and shall procure that each Guarantor shall, execute all transfers, conveyances, assignments and releases of that property whether to the Security Agent or to its nominees and give all notices, orders and directions which the Security Agent may reasonably request.

Amendment and Restatement of Intercreditor Agreement; Additional Intercreditor Agreements

Furthermore, at the request of the Issuer, at the time of, or prior to, the Incurrence of any Indebtedness that is permitted to share the Collateral, the Issuer, the relevant Guarantors, the Holders’ Representative the Super Senior Revolving Credit Facility Lenders, the Senior Secured Facility Lenders and/or their respective agents and the Security Agent shall enter into an additional intercreditor agreement (each an “**Additional Intercreditor Agreement**”) on terms substantially similar to the Intercreditor Agreement (or not materially less favorable to the Holders) or an amendment to, or an amendment and restatement of, the Intercreditor Agreement (which amendment is not materially less favorable to the Holders); *provided* that such Intercreditor Agreement or Additional Intercreditor Agreement will not impose any personal obligations on the Holders’ Representative or the Security Agent or adversely affect the rights, duties, liabilities or immunities of the Holders’ Representative under the Conditions of Issue or the Intercreditor Agreement; *provided* further that it is understood and agreed that an increase in the amount of Indebtedness being subjected to the terms of the Intercreditor Agreement or any Additional Intercreditor Agreement will be deemed to be on substantially similar terms to the Intercreditor Agreement and will be deemed not to adversely affect the rights of the Holders and will be permitted by this covenant if, in each case, the incurrence of such Indebtedness (and any Lien in its favor), would not be otherwise prohibited by the Conditions of Issue.

The Conditions of Issue will also provide that, at the direction of the Issuer and without the consent of the Holders’ Representative, the Security Agent or any Holder, the Holders’ Representative and the Security Agent shall from time to time enter into one or more amendments to the Intercreditor Agreement and any Additional Intercreditor Agreement to: (1) cure any ambiguity, omission, defect, manifest error or inconsistency of any such agreement; (2) increase the amount or types of Indebtedness covered by any such agreement that may be incurred by the Issuer or any Restricted Subsidiary that is subject to any such agreement (including with respect to any Intercreditor Agreement or any Additional Intercreditor Agreement, the addition of provisions relating to new Indebtedness ranking junior in right of payment to the Notes); (3) add Restricted Subsidiaries or Guarantors to the Intercreditor Agreement or an Additional Intercreditor Agreement; (4) further secure the Notes (including any additional Notes); (5) make provision for equal and ratable pledges of the Collateral to secure additional Pari Passu Debt (including additional Notes); (6) implement any Permitted Liens and Permitted Collateral Liens; (7) amend the Intercreditor Agreement or any Additional Intercreditor Agreement in accordance with the terms thereof;

(8) amend the Intercreditor Agreement or any Additional Intercreditor Agreement to (i) remove any references to any instruments governing any existing Pari Passu Debt (as defined in the Intercreditor Agreement) following the full redemption or repayment of such Pari Passu Debt and the cancellation or termination of the relevant instruments, as applicable and/or (ii) replace any such references with references to any new instruments governing any new Pari Passu Debt that replaces and/or refinances any existing Pari Passu Debt, in each case in accordance with the Conditions of Issue; or (9) make any other change to any such agreement that does not adversely affect the Holders in any material respect.

Save as may be required by mandatory provisions of law, each Holder, by accepting a Note, will be deemed to have agreed to and accepted the terms and conditions of each Intercreditor Agreement and Additional Intercreditor Agreement and any amendment referred to in the preceding paragraphs as well as have authorized the Holders' Representative to enter into a creditor/creditor representative accession agreement as contemplated by the Intercreditor Agreement and, the Holders' Representative or the Security Agent shall not be required to seek the consent of any Holders to perform its obligations under and in accordance with this covenant. Before entering into an Additional Intercreditor Agreement or effecting any amendment to the Intercreditor Agreement pursuant to this covenant, the Holders' Representative or the Security Agent may elect to base its decision on an Officers' Request Certificate or an Opinion of Counsel in form and substance reasonably satisfactory to the Holders' Representative or the Security Agent, as applicable. Neither the Holders' Representative nor the Security Agent shall be liable for any action it takes or omits to take in good faith in reliance on such Officers' Request Certificate or Opinion of Counsel. The Issuer shall notify the Holders of the entry of an Additional Intercreditor Agreement or any amendment to the Intercreditor Agreement effected pursuant to this covenant without undue delay in accordance with procedures set forth in the Condition of Issue.

Suspension of Covenants

If on any date following the date of the Conditions of Issue:

- (i) the Notes are rated with an Investment Grade Rating by both Rating Agencies; and
- (ii) no Default has occurred and is continuing under the Conditions of Issue (the foregoing conditions being referred to collectively as the “**Suspension Condition**”);

then, beginning on that day and subject to the provisions of the following paragraph, the covenants specifically listed under the following captions in this “*Description of the Notes*” (collectively, the “**Suspended Covenants**”) of the Conditions of Issue will be suspended as to the Notes:

- “—*Limitation on Indebtedness*”;
- “—*Limitation on Restricted Payments*”;
- “—*Limitation on Restrictions on Distributions from Restricted Subsidiaries*”;
- “—*Limitation on Sales of Assets*”;
- “—*Limitation on Affiliate Transactions*”;
- “—*Limitation on Lines of Business*”;
- “—*Future Guarantors*”; and
- clauses (ii) and (iii) of the first paragraph and (ii) of the second paragraph, respectively, of “—*Merger and Consolidation*”.

During any period that the foregoing sections have been suspended, the Issuer's Board of Directors may not designate any of its Subsidiaries as Unrestricted Subsidiaries pursuant to “—*Covenants—Restricted and Unrestricted Subsidiaries*” unless the designation would have complied with the covenant described under “—*Covenants—Limitations on Restricted Payments*”.

Notwithstanding the foregoing, if the Issuer and its Restricted Subsidiaries are not subject to the Suspended Covenants with respect to the Notes for any period of time as a result of the Suspension Condition having been met and, subsequently, one or both Rating Agencies withdraw their Investment Grade Rating or downgrade the Investment Grade Rating assigned to the Notes such that the Notes no longer have an Investment Grade Rating by both Rating Agencies, then the Issuer and each of its Restricted Subsidiaries will thereafter again be subject to the Suspended Covenants. (a) Compliance with the Suspended Covenants with respect to Restricted Payments made after the time of such withdrawal or

downgrade (i) will be calculated in accordance with the terms of the reinstated “—*Covenants—Limitations on Restricted Payments*” covenant as if the provisions had been in effect since the Issue Date (accordingly, Restricted Payments made during such period when the Suspended Covenants are suspended will reduce the amount available to be made as Restricted Payments described under the first paragraph of “—*Covenants—Limitations on Restricted Payments*”) and (ii) will be calculated in accordance with the terms of the reinstated “—*Covenants—Limitation on Indebtedness*” covenant as if any Indebtedness incurred on or after the occurrence of the Suspension Condition will be deemed to have been incurred pursuant to the first paragraph described under “—*Covenants—Limitation on Indebtedness*”; and (b) the Issuer will, and will cause each Restricted Subsidiary that would have been required to Guarantee the Notes pursuant to “—*Covenants—Future Guarantors*” during such period when the Suspended Covenants are suspended to take all actions it would have been required to take to comply with “—*Covenants—Future Guarantors*” if it had not been suspended including executing a Note Guarantee and pledging the Restricted Subsidiary’s existing and future assets and pledging all of the Capital Stock in such Restricted Subsidiary to secure the Notes and the Guarantees; provided, further, that no Default, Event of Default or breach of any kind will be deemed to exist under the Conditions of Issue with respect to the Suspended Covenants based on, and none of the Issuer or any of its Subsidiaries will bear any liability for, any actions taken or events occurring after such Notes attain the required ratings and before any reinstatement of the Suspended Covenants as provided above, or any actions, taken at any time pursuant to any contractual obligations arising prior to the reinstatement of the Suspended Covenants, regardless of whether those actions or events would have been permitted if the applicable sections had remained in effect during such period.

Financial Calculations

When calculating the availability under any basket or ratio under the Conditions of Issue in connection with any future paper machine project (including with regard to the Incurrence of any related Indebtedness or the making of any related Restricted Payments and Permitted Investments, as the case may be), the date of determination of such basket or ratio and of any Default or Event of Default shall, at the option of the Issuer, be the Commitment Date (as defined below) with regard to any such paper machine project for purposes of determining the ability to Incur any related Indebtedness or make any related Restricted Payments and/or Permitted Investments (in each case, as set forth in the then-current budget for such paper machine project prepared in good faith by an Officer of the Issuer and approved by the Board of Directors of the Issuer) after the Commitment Date (and not for purposes of any subsequent availability of any basket or ratio), and, for the avoidance of doubt, (x) if any of such baskets or ratios are exceeded as a result of fluctuations in such basket or ratio or any component thereof (including due to fluctuations in Consolidated EBITDA) subsequent to such date of determination and at or prior to the Incurrence of any related Indebtedness or the making of any related Restricted Payments and/or Permitted Investments, such baskets or ratios will not be deemed to have been exceeded as a result of such fluctuations solely for purposes of determining whether the Incurrence of any such related Indebtedness or the making of any such Restricted Payments or Permitted Investments are permitted hereunder and (y) such baskets or ratios shall not be tested at the time any such related Indebtedness is actually Incurred or any such Restricted Payments or Permitted Investments are actually made; *provided further*, that if the Issuer elects to have such determinations occur at the Commitment Date, the Incurrence of any related Indebtedness or the making of any related Restricted Payments and/or Permitted Investments shall be deemed to have occurred on the Commitment Date and any such Indebtedness shall be deemed to be outstanding thereafter for purposes of calculating any baskets or ratios under the Conditions of Issue after the Commitment Date and before the earlier of (i) the actual Incurrence of any related Indebtedness or the actual making of any related Restricted Payments and/or Permitted Investments, as applicable and (ii) the date on which the Issuer determines that the relevant paper machine project has been completed or abandoned (as set forth in an Officers’ Request Certificate). “**Commitment Date**” with regard to any paper machine project for the purpose of this covenant shall mean the date specified as such in a resolution of the Board of Directors of the Issuer; *provided* that the Issuer and/or one or more of its Subsidiaries, on the date of such resolutions, reasonably expects to enter, within three months of the date of such resolution, into one or more definitive agreements with one or more third parties with regard to the realization of the relevant paper machine project with an aggregate value of no less than €50 million.

Events of Default, Enforcement

Each of the following constitutes an “**Event of Default**” under the Conditions of Issue:

- (a) default in any payment of interest or Additional Amounts, if any, on any Note when due and payable, continued for 30 days;
- (b) default in the payment of principal of or premium, if any, on any Note when due and payable at its Stated Maturity, upon optional redemption, upon required repurchase, upon acceleration or otherwise;
- (c) failure by the Issuer or any of the Guarantors to comply with any obligation under the covenant set forth under “—Covenants—Merger and Consolidation”, “—Repurchase at the Option of Holders upon a Change of Control”, or “—Covenants—Limitation on Sales of Assets”, continued for 30 days, other than a failure to purchase Notes which shall constitute an Event of Default under the foregoing clause (b);
- (d) failure by the Issuer or any of the Guarantors to comply for 60 days after notice from the Holders’ Representative (upon instruction by holders of at least 25% in aggregate principal amount of the Notes then outstanding) with its other obligations contained in the Conditions of Issue;
- (e) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for borrowed money by the Issuer or any of its Restricted Subsidiaries (or the payment of which is guaranteed by the Issuer or any of its Restricted Subsidiaries), other than Indebtedness owed to the Issuer or a Restricted Subsidiary, whether such Indebtedness or guarantee now exists, or is created after the date of the Conditions of Issue, which default:
 - (i) is caused by a failure to pay when due principal of, or interest or premium, if any, on such Indebtedness prior to the expiration of any applicable grace period provided for under the terms of such Indebtedness (“**payment default**”); or
 - (ii) results in the acceleration of such Indebtedness prior to its maturity;and, in each case, the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a payment default or the maturity of which has been so accelerated aggregates €40 million or more;
- (f) certain events of bankruptcy, insolvency or reorganization under bankruptcy laws of (i) the Issuer, (ii) a Guarantor or (iii) a group of Restricted Subsidiaries that taken together (as of the latest audited consolidated financial statements for the Issuer and its Restricted Subsidiaries) would constitute a Significant Subsidiary;
- (g) failure by the Issuer or any Restricted Subsidiary to pay final judgments aggregating in excess of €10 million (net of any amounts that are covered by insurance policies issued by reputable and creditworthy insurance companies), which judgments are not paid, discharged or stayed for a period of 60 days after the judgment exceeding such threshold becomes final;
- (h) any Note Guarantee of any Guarantor that constitutes a Significant Subsidiary ceases to be in full force and effect (except as contemplated by the terms of such Note Guarantee or the Conditions of Issue or as provided under applicable law) or is declared null and void in a judicial proceeding or the Issuer or any such Guarantor denies or disaffirms in writing or in any pleading in any court its obligations under the Conditions of Issue or its Note Guarantee and any such Default continues for ten days; or
- (i) with respect to any Collateral having a Fair Market Value in excess of €20 million, individually or in the aggregate, (i) (a) the security interest under the Conditions of Issue or the Security Documents, at any time, ceases to be in full force and effect for any reason other than in accordance with the terms of the Security Documents and other than the satisfaction in full of all obligations under the Notes or (b) any security interest created thereunder or under the Security Documents is declared invalid or unenforceable and such Default continues for 15 days after the Issuer becomes aware of the Default or (ii) the Issuer or any Guarantor asserts that any such security interest or Security Document is invalid or unenforceable prior to the time that the Collateral is to be released to the Issuer or the Guarantors.

If an Event of Default (other than an Event of Default pursuant to the foregoing clause (f)) occurs and is continuing, the Holders' Representative upon instruction of Holders of at least 25% in principal amount of all outstanding Notes by notice to the Issuer shall terminate the Notes and declare the principal amount of and all accrued interest under all outstanding Notes to be due and payable immediately. If an Event of Default with respect to the Issuer pursuant to the foregoing clause (f) occurs and is continuing, the Notes will automatically be terminated and all payments under the Notes will become due and payable immediately without any declaration or other act on the part of the Holders' Representative or any Holder. Certain enforcement actions, including acceleration, will be suspended during a consultation period under the Intercreditor Agreement. See "*Description of Certain Financing Arrangements—Intercreditor Agreement*".

In the event of a declaration of acceleration of the Notes because an Event of Default pursuant to foregoing clause (e) has occurred and is continuing, the declaration of acceleration of the Notes shall be automatically annulled if the relevant default triggering such Event of Default pursuant to the foregoing clause (e) shall be remedied or cured by the Issuer or a Restricted Subsidiary or waived by the holders of the relevant Indebtedness, or the relevant Indebtedness that gave rise to such Event of Default shall have been discharged in full, within 20 days after the declaration of acceleration with respect thereto and if (i) the annulment of the acceleration of the Notes would not conflict with any judgment or decree of a court of competent jurisdiction and (ii) all existing Events of Default, except non-payment of principal, premium, or interest on the Notes that became due solely because of the acceleration of the Notes, have been cured or waived.

The Holders may rescind any acceleration with respect to the Notes and its consequences within three months of the acceleration by simple majority vote of the Holders if such rescission would not conflict with any judgment or decree of a court of competent jurisdiction; *provided*, however, that the aggregate of such cast votes exceeds the number of votes having required the acceleration.

Notwithstanding anything to the contrary herein, (i) if a Default occurs for a failure to deliver a required certificate in connection with another default (an "**Initial Default**"), then at the time such Initial Default is cured, such Default for failure to report or deliver a required certificate in connection with the Initial Default will also be cured without any further action and (ii) any Default or Event of Default for the failure to comply with the time periods prescribed in "*—Covenants—Reports*", or otherwise to deliver any notice or certificate pursuant to any other provision of the Conditions of Issue shall be deemed to be cured upon delivery of any such report required by such covenant or notice or certificate, as applicable, even though such delivery is not within the prescribed period specified in the Conditions of Issue.

Except to enforce the right to receive payment of principal, premium, if any, or interest when due, no Holder may pursue any remedy with respect to the Conditions of Issue or the Notes unless:

- (a) such Holder has previously given the Holders' Representative notice that an Event of Default is continuing;
- (b) Holders of at least 25% in principal amount of the outstanding Notes have requested the Holders' Representative to pursue the remedy;
- (c) the Holders' Representative has not complied with such request within 60 days following the receipt of the request; and
- (d) the Holders of a majority in principal amount of the outstanding Notes have not within such 60 day period given the Holders' Representative a direction that, in the opinion of the Holders' Representative, is inconsistent with such request.

Subject to the Conditions of Issue and applicable law, the Holders of a majority in aggregate principal amount of the outstanding Notes are given the right to direct the time, method and place of conducting any proceeding for any remedy available to the Holders' Representative or of exercising any trust or power conferred on the Holders' Representative.

The Issuer shall deliver to the Holders' Representative for delivery to the Holders in accordance with procedures set forth in the Condition of Issue, within 120 days after the end of each fiscal year (and within 20 Business Days upon request at any time after the 120 days), an Officers' Request Certificate stating whether the signers thereof know of any Default that occurred during the previous year. The Issuer also is required to deliver to the Holders' Representative, after becoming aware of the occurrence thereof, written notice of any events of which it is aware which would constitute Defaults, their status and what action the Issuer is taking or proposes to take in respect thereof.

If an Event of Default occurs and is continuing, the Holders' Representative may or, subject to the provisions of the Intercreditor Agreement with respect to any Note Guarantee and the Collateral, the Security Agent may:

- (a) in its sole discretion, but shall not be required to, proceed to protect and enforce the rights of the Holders by such appropriate judicial proceedings as the Holders' Representative or the Security Agent, as applicable, shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in the Conditions of Issue or any Note Guarantee or in aid of the exercise of any power granted herein, or to enforce any other proper remedy, including making demand under one or more of the Note Guarantees on behalf of the Holders; and
- (b) prosecute and enforce all rights of action and claims under the Conditions of Issue or any Note Guarantee without the possession of any of the Notes or the Global Notes or the production thereof in any proceeding relating thereto, and to bring any such proceeding on behalf of the Holders.

Amendments and Waivers

In accordance with the German Act on Debt Securities of 2009 (*Gesetz über Schuldverschreibungen aus Gesamtemissionen (Schuldverschreibungsgesetz-SchVG)*) the Holders may, by resolution with the majority specified in the following paragraph below, (i) agree with the Issuer on amendments to the Conditions of Issue, with regard to matters permitted by the SchVG, (ii) consent to such amendments of the Intercreditor Agreement, the Guarantees and the Security Documents which require such consent by the Holders, (iii) alter the powers and duties of, and give instructions and consents to, the Holders' Representative to the extent the Holders' Representative has the right but not the obligation to accept such additional powers and duties and (iv) appoint, and revoke the appointment of any Holders' Representative. Majority resolutions shall be binding on all Holders. Resolutions which do not provide for identical conditions for all Holders are void, unless Holders who are disadvantaged have expressly consented to their being treated disadvantageously.

Unless a higher majority is required under mandatory provisions of statutory law, resolutions shall be passed by a majority of the Holders of not less than 50% plus one vote of the votes cast (including, votes obtained in connection with a tender offer or exchange offer for the Notes); *provided*, however, that resolutions regarding:

- (i) any reduction of the relevant premium to be paid upon repurchase of any Notes or any change in the time at which any Note is to be repurchased pursuant to the provision described under “—*Optional Redemption*” and under “—*Repurchase at the Option of Holders upon a Change of Control*”;
- (ii) any amendment or termination of any of the Security Documents (other than amendments provided for in the Conditions of Issue, the Intercreditor Agreement or the Security Documents);
- (iii) any change of the Stated Maturity of the principal of, or any instalment of interest on, or change to an earlier redemption date of, or waiver of a default in the payment of principal of, premium, if any, or interest on, any Notes (except a rescission or acceleration of the Notes by simple majority resolution of the meeting of the Holders and a waiver of the Payment Default that resulted from such acceleration) or reduce the principal amount thereof or the rate of interest thereon, or change the coin or currency in which the principal of any such Note or any premium or the interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment after the Stated Maturity thereof (or, in the case of redemption, on or after the redemption date);
- (iv) any reduction in the principal amount of outstanding Notes whose holders must consent to an amendment, supplement or waiver;
- (v) the modification of any of the provisions relating to amendments requiring the consent of holders or relating to the waiver of past defaults or the waiver of covenants, except to increase the percentage of outstanding Notes required for such actions;
- (vi) the release of any Guarantor from its obligations under its Note Guarantee except in accordance with the Conditions of Issue, such Note Guarantee and the Intercreditor Agreement; and

(vii) any change to the preceding amendment and waiver provisions;

shall require the consent of not less than 90% of the votes cast (including, consents obtained in connection with a tender offer or exchange offer for the Notes); *provided* further that any amendments regarding the form, custody and clearing, and transferability of the Notes, the book-entry register, payment conditions and the enforcement of rights as set forth in the Conditions of Issue require approval of 100% of the Holders.

For the avoidance of doubt, it is not necessary for the Holders to consent to the particular form of any proposed amendment. It is sufficient if the Holders consent to the substance of any proposed amendment.

The Conditions of Issue or the Intercreditor Agreement may be amended or supplemented without the consent of any Holder:

- (i) to cure any ambiguity, to correct any error which is of formal, minor or technical nature, or to correct or supplement any provision in the Conditions of Issue, the Intercreditor Agreement or the Procedural Rules that may be defective or inconsistent with any other provision in the Conditions of Issue, the Intercreditor Agreement or the Procedural Rules; *provided* that, in each case, such provisions shall not adversely affect the interests of the Holders;
- (ii) to provide for the assumption of the Issuer's or a Guarantor's obligations under the Conditions of Issue, the Intercreditor Agreement or the Procedural Rules in the case of a merger or other amalgamation or sale of all or substantially all of the Issuer's or such Guarantor's assets, as the case may be; *provided* that such merger, amalgamation or sale of all or substantially all assets is not prohibited by the Conditions of Issue or any Guarantee;
- (iii) to make any change that would provide any additional rights or benefits to the Holders;
- (iv) to add additional Guarantees, or to release Guarantors from Guarantees in accordance with and if permitted by the terms of the Conditions of Issue;
- (v) to further secure the Notes, or to release all or any portion of the Collateral in accordance with and if permitted by the terms of the Conditions of Issue;
- (vi) to enter into an Additional Intercreditor Agreement, or to amend the Intercreditor Agreement, as contemplated under "*—Covenants—Amendment and Restatement of Intercreditor Agreement; Additional Intercreditor Agreement*"; or
- (vii) to provide for the issuance of additional Notes as contemplated under "*—General—Additional Notes*" and if permitted by the terms and limitations of the Conditions of Issue.

Holders shall pass resolutions by vote taken without a meeting in accordance with the Procedural Rules, unless the Holders' Representative or Holders representing in the aggregate at least 5% of the aggregate principal amount of Notes outstanding expressly request that a meeting of Holders takes place. The vote shall be chaired by a notary appointed by the Issuer or, if the Holders' Representative has convened the vote, by the Holders' Representative.

Each Holder participating in any vote shall cast votes in accordance with the nominal amount or the notional share of its entitlement to the outstanding aggregate principal amount of Notes.

Exercise of voting rights in a vote without meeting is subject to the Holders registration. Registration must be received at the address stated in the request for voting by no later than the third day preceding the voting period.

Attendance at a meeting and exercise of voting rights is subject to the Holders registration. Registration must be received at the address stated in the convening notice by no later than the third day preceding the meeting.

Along with the registration the person that convened the meeting or the person that solicited the vote must receive a proof of eligibility for exercising voting rights. Holders must demonstrate their eligibility to participate in the vote by means of a special confirmation of the custodian in text form and by submission of a blocking instruction by the custodian stating that the respective Notes are not transferable from the day the registration has been sent (including) to the stated end of the meeting (including).

The notice for solicitation of votes shall give details as to the prerequisites which must be met for votes to qualify for being counted.

Legal Defeasance or Covenant Defeasance

The Conditions of Issue will provide that the Issuer may, as evidenced by a resolution set forth in an Officers' Request Certificate, elect to have the obligations of the Issuer and the Guarantors discharged with respect to the outstanding Notes and the Guarantees ("**Legal Defeasance**"). Legal Defeasance means that the Issuer will be deemed to have paid and discharged the entire Indebtedness represented by the outstanding Notes that are being defeased and Note Guarantees except as to:

- (a) the rights of holders of outstanding Notes to receive payments in respect of the principal of, premium, if any, and interest on such Notes when such payments are due from the trust account referred to below;
- (b) the Issuer's obligations to exchange any Notes, replace mutilated, destroyed, lost or stolen Notes, maintain an office or agency for payments in respect of the Notes and segregate and hold such payments in trust;
- (c) the rights and obligations of the Holders' Representative and the obligations of the Issuer and the Guarantors in connection therewith; and
- (d) the "*Legal Defeasance or Covenant Defeasance*" provisions of the Conditions of Issue.

In addition, the Issuer may, at its option and at any time, elect to have the obligations of the Issuer and the Guarantors released with respect to certain covenants set forth in the Conditions of Issue ("**Covenant Defeasance**"), and thereafter any omission to comply with such covenants will not constitute a Default or an Event of Default with respect to the Notes. In the event Covenant Defeasance occurs, certain events described under "*—Events of Default, Enforcement*" will no longer constitute an Event of Default with respect to the Notes. These events do not include events relating to non-payment or, solely with respect to the Issuer, bankruptcy, insolvency, receivership and reorganization. The Issuer may exercise its Legal Defeasance option regardless of whether they previously exercised Covenant Defeasance.

In order to exercise either Legal Defeasance or Covenant Defeasance:

- (i) the Issuer must irrevocably deposit or cause to be deposited in a trust account for the benefit of the holders of the Notes, cash in euro, non-callable European Government Obligations or a combination thereof, in each case in such amounts as will be sufficient, in the opinion of the Issuer (acting in good faith), to pay and discharge the principal of, premium, if any, and interest, on the outstanding Notes on the Stated Maturity or on the applicable redemption date, as the case may be, and the Issuer must (x) prior to depositing such monies or securities to the trust account, procure an Opinion of Counsel stating, subject to customary assumptions and qualifications, that the trust account will be bankruptcy remote; (y) specify whether the Notes are being defeased to such Stated Maturity or to a particular redemption date; and (z) if applicable, have delivered to the Holders' Representative an irrevocable notice to redeem all the outstanding Notes of such principal, premium, if any, or interest;
- (ii) in the case of Legal Defeasance, the Issuer must have delivered to the Holders' Representative an Opinion of Counsel stating that (i) the Issuer has received from, or there has been published by, the U.S. Internal Revenue Service a ruling, or (ii) since the original issue date of the Notes, there has been a change in applicable U.S. federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the beneficial owners of the outstanding Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such Legal Defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;
- (iii) in the case of Covenant Defeasance, the Issuer must have delivered to the Holders' Representative an Opinion of Counsel to the effect that the beneficial owners of the outstanding Notes will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such Covenant Defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;
- (iv) the Issuer must have delivered to the Holders' Representative an Officers' Request Certificate stating that the deposit was not made by the Issuer with the intent of preferring the holders of the

Notes over the other creditors of the Issuer with the intent of defeating, hindering, delaying or defrauding creditors of the Issuer or others; and

- (v) the Issuer must have delivered to the Holders' Representative an Officers' Request Certificate and an Opinion of Counsel, subject to customary assumptions and qualifications, each stating that all conditions precedent relating to the Legal Defeasance or the Covenant Defeasance, as the case may be, have been complied with.

The Holders' Representative shall be entitled to accept any Opinion of Counsel delivered to it pursuant to this paragraph as sufficient evidence of compliance with the relevant paragraph and shall not be obligated to independently investigate whether the requirements of the relevant paragraph are otherwise met.

Additional Information

Anyone who has received this offering memorandum may obtain a copy of the Conditions of Issue, the Notes, the Guarantee Agreement and the Intercreditor Agreement, without charge, in each case, by writing to the Paying Agent. Copies of such documents are also available at the specified office of the Listing Agent (if different from the Paying Agent) and the registered office of the Issuer.

Governing Law

The Conditions of Issue provide that the Notes, both as to form and content, as well as the rights and duties of the Holders, the Issuer, the Holders' Representative and the Paying Agent shall in all respects be determined in accordance with German law. The Intercreditor Agreement will also be governed by German law.

Place of Jurisdiction and Service of Process; Enforcement

Place of jurisdiction for all proceedings arising from matters provided for in the Conditions of Issue shall be, as far as permitted by law, Frankfurt am Main, Federal Republic of Germany. The Holders are entitled to assert their claims also before any other competent court and the Issuer submits to the jurisdiction of the courts which are competent.

Any Holder may in any proceedings against the Issuer, or to which such Holder and the Issuer are parties, protect and enforce in his own name his rights arising under such Notes on the basis of (i) a statement issued by the Custodian with whom such Holder maintains a securities account in respect of the Notes (a) stating the full name and address of the Holder, (b) specifying the aggregate principal amount of Notes credited to such securities account on the date of such statement and (c) confirming that the Custodian has given written notice to the clearing system and Book-Entry Register containing the information pursuant to (a) and (b) and bearing acknowledgements of the clearing system and any other Custodian in the chain of ownership for such Holder as to the Notes held in their respective accounts and (ii) a copy of the Note in global form certified as being a true copy by a duly authorized officer of the clearing system or a depository of the clearing system, without the need for production in such proceedings of the actual records or the global note representing the Notes. For purposes of the foregoing, "Custodian" means any bank or other financial institution of recognized standing authorized to engage in securities custody business with which the Holder maintains a securities account in respect of the Notes and includes the clearing system and Clearstream Banking.

Notices

All notices to the Holders shall be either

- (i) delivered through the Paying Agent or the Notification Agent, as applicable, to Clearstream Banking for communication by Clearstream Banking to Holders; or
- (ii) made available on "www.progroup.ag/news/" or any other publicly accessible web site, the address of which has been notified to the Holders in the manner set out in (i) on or before the date on which the relevant notice is given in accordance with this (ii).

Any notice referred to under (i) of the preceding sentence shall be deemed to have been given to all Holders on the third calendar day after the day on which the said notice was delivered to Clearstream Banking and any notice referred to under (ii) or (iii) of the preceding sentence shall be deemed to have been given to all Holders on the day on which it is made available on the web site; *provided* that if so made available after 4:00 p.m. (Frankfurt time) it shall be deemed to have been given on the immediately

following calendar day. Any obligation of the Holders' Representative to give notice to the Holders pursuant to the Conditions of Issue shall be limited to providing the Notification Agent, who shall act on instruction by the Issuer, with the respective notice for further communication to the Holders. To the extent required by German law, notices will be also published through the German Federal Gazette (*Bundesanzeiger*).

Notices to be given to the Holders' Representative under or in connection with the Conditions of Issue shall be made by means of a written declaration to be delivered by (i) fax or email and (ii) hand or registered mail to the address of the Holders' Representative as set forth in the Conditions of Issue.

Presentation Period; Prescription

The presentation period provided for in Section 801(1) first sentence of the German civil code (*Bürgerliches Gesetzbuch*) is reduced to ten years for the Notes. The period of limitation for claims under the Notes presented during the period for presentation will be two years calculated from the expiration of the relevant presentation period.

Certain Definitions

"Acquired Indebtedness" means Indebtedness of a Person or any of its Subsidiaries existing at the time such Person becomes a Restricted Subsidiary or is merged into or consolidated with any other Person or that is assumed in connection with the acquisition of assets from such Person and, in each case, not Incurred by such Person in connection with, or in anticipation or contemplation of, such Person becoming a Restricted Subsidiary or such merger, consolidation or acquisition.

"Additional Assets" means:

- (1) any property or assets (other than Indebtedness and Capital Stock) in a Related Business including newly acquired property or assets and improvements of existing property or assets (excluding, for the avoidance of doubt, working capital or current assets);
- (2) the Capital Stock of a Person that becomes a Restricted Subsidiary as a result of the acquisition of such Capital Stock by the Issuer or a Restricted Subsidiary; or
- (3) Capital Stock constituting a minority interest in any Person that at such time is a Restricted Subsidiary.

provided, however, that, in the case of clauses (2) and (3), such Restricted Subsidiary is primarily engaged in a Related Business.

"Affiliate" of any specified Person means any other Person, directly or indirectly, controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "control" when used with respect to any Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise. The terms "controlling" and "controlled" have meanings correlative to the foregoing.

"Agency Agreement" means the agency agreement in relation to the Existing Notes dated March 27, 2018 and made between, among others, the Paying Agent, the Issuer and any other parties named therein, as amended, restated or otherwise modified or varied from time to time, including by the supplement to be entered into in relation to the Additional Notes on or about the issue date of the Additional Notes.

"Agreed Security Principles" means the agreed security principles as set out, from time to time, in an annex to the Super Senior Revolving Credit Facility (or any other Credit Facility that may replace the Super Senior Revolving Credit Facility), as applied reasonably and in good faith by the Issuer.

"Applicable Premium" means, with respect to any Note on any redemption date, the greater of:

- (1) 1.0% of the principal amount of such Note; and
- (2) the excess of (i) the present value on such redemption date of (A) the redemption price of such Note at March 31, 2021 (such redemption price being set forth in the table appearing above under "*—Optional Redemption*", exclusive of any accrued and unpaid interest), plus (B) all required remaining scheduled interest payments due on the Notes through March 31, 2021 (but excluding accrued and unpaid interest to the redemption date), in each case computed using a discount rate equal to the Bund Rate plus 50 basis points, over (ii) the principal amount of such Note on such redemption date.

The calculation of the Applicable Premium shall be made by the Issuer or on behalf of the Issuer by such Person as the Issuer shall designate and shall be conclusive in the absence of manifest error.

“Asset Disposition” means any direct or indirect sale, lease (other than an operating lease entered into in the ordinary course of business), conveyance, transfer, assignment or any other disposition, or series of related sales, conveyances, transfers, assignments, leases or other dispositions that form part of a common plan by the Issuer or any of its Restricted Subsidiaries, including any disposition by means of a merger, consolidation or similar transaction (each referred to for the purposes of this definition as a **“disposition”**), of any shares of Capital Stock of any Subsidiary (other than directors’ qualifying shares or shares required by applicable law to be held by a Person other than the Issuer or any of its Subsidiaries) or any other assets of the Issuer or any of its Restricted Subsidiaries, other than:

- (1) a disposition by a Restricted Subsidiary to the Issuer or by the Issuer or a Restricted Subsidiary to a Restricted Subsidiary;
- (2) a disposition of cash or Cash Equivalents;
- (3) for purposes of the covenant set forth under *“—Covenants—Limitation on Sales of Assets”* only, a disposition that constitutes a Restricted Payment permitted by the covenant set forth under *“—Covenants—Limitation on Restricted Payments”* or a Permitted Investment;
- (4) transactions permitted by the covenant set forth under *“—Covenants—Merger and Consolidation—The Issuer”* or transactions constituting a Change of Control;
- (5) dispositions in connection with Permitted Liens, foreclosures on assets and any release of claims which have been written down or written off;
- (6) dispositions of obsolete or worn out equipment or equipment that is no longer useful in the conduct of the business of the Issuer and its Restricted Subsidiaries and which is disposed of in the ordinary course of business;
- (7) any sale, transfer or other disposition of Securitization Assets and related assets in connection with any Qualified Securitization Financing;
- (8) dispositions of inventory and goods of sale in the ordinary course of business;
- (9) the licensing, sublicensing or sale of intellectual property or other intangibles and licenses in the ordinary course of business which do not materially interfere with the ordinary conduct of the business of the Issuer or any of its Restricted Subsidiaries;
- (10) dispositions of Capital Stock, Indebtedness or other securities of an Unrestricted Subsidiary;
- (11) the granting of Liens not prohibited by the covenant described above under *“—Covenants—Limitation on Liens”*;
- (12) dispositions of receivables in connection with the compromise, settlement or collection thereof or surrender or waiver of contract rights or settlement, release of contract, tort or other claim, in each case, in the ordinary course of business;
- (13) dispositions required by law or any governmental authority or agency;
- (14) any exchange of assets for assets related to a Related Business of comparable or greater market value, as determined in good faith by the principal financial officer and the principal executive officer of the Issuer;
- (15) sales, transfers or other dispositions of Investments in joint ventures to the extent required by, or made pursuant to, customary buy/sell arrangements between the joint venture parties set forth in joint venture agreements and similar binding agreements; *provided* that any cash or Cash Equivalents received in such sale, transfer or disposition is applied in accordance with the covenant described under *“—Covenants—Limitation on Sale of Assets”*;
- (16) taking by eminent domain, condemnation or any similar action with respect to any property or other assets;
- (17) any enforcement action taken in accordance with the Intercreditor Agreement or any Additional Intercreditor Agreement; and

(18) dispositions of assets the Fair Market Value of which does not exceed €5 million in any transaction or series of related transactions.

“**Average Life**” means, as of the date of determination, with respect to any Indebtedness, the quotient obtained by dividing (i) the sum of the products of the numbers of years from the date of determination to the dates of each successive scheduled principal payment of such Indebtedness multiplied by the amount of such payment by (ii) the sum of all such payments.

“**Board of Directors**” means, with respect to the Issuer or a Subsidiary, as the case may be, the management board (or other body or individual (including a managing director) performing functions similar to any of those performed by a management board or any committee thereof duly authorized to act on behalf of such board (or other body)).

“**Bund Rate**” means the yield to maturity at the time of computation of direct obligations of the Federal Republic of Germany (*Bund* or *Bundesanleihen*) with a constant maturity (as officially compiled and published in the most recent financial statistics that have become publicly available at least two Business Days (but not more than five Business Days) prior to the redemption date (or, if such financial statistics are not so published or available, any publicly available source of similar market data selected by the Issuer in good faith)) most nearly equal to the period from the redemption date to March 31, 2021; *provided*, however that if the period from the redemption date to March 31, 2021 is not equal to the constant maturity of the direct obligations of the Federal Republic of Germany for which a weekly average yield is given, the Bund Rate shall be obtained by linear interpolation (calculated to the nearest one-twelfth of a year) from the weekly average yields of direct obligations of the Federal Republic of Germany for which such yields are given, except that if the period from such redemption date to March 31, 2021 is less than one year, the weekly average yield on actually traded direct obligations of the Federal Republic of Germany adjusted to a constant maturity of one year shall be used.

“**Business Day**” means any day which is a day (other than a Saturday or a Sunday) on which (i) banks are open for general business in Frankfurt and London, and (ii) the clearing system as well as all relevant parts of the Trans-European Automated Real-time Gross Settlement Express Transfer System 2 (TARGET2) are operational to forward payments in euro.

“**Capital Stock**” of any Person means any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) equity of such Person (but excluding any debt securities convertible into such equity).

“**Capitalized Lease Obligation**” means an obligation that is required to be classified and accounted for as a capitalized lease for financial reporting purposes in accordance with GAAP, and the amount of Indebtedness represented by such obligation shall be the capitalized amount of such obligation at the time any determination thereof is to be made as determined in accordance with GAAP, under such lease prior to the first date such lease may be terminated without penalty.

“**Cash Equivalents**” means:

- (1) securities issued or directly and fully guaranteed or insured by the United States Government or any agency or instrumentality of the United States or a member state of the European Union on December 31, 2003 (other than Greece, Ireland, Italy, Portugal or Spain) or any agency or instrumentality thereof (*provided*, however, that the full faith and credit of the United States or such member state of the European Union is pledged in support thereof); having maturities of not more than one year from the date of acquisition;
- (2) certificates of deposit, time deposits, Eurodollar time deposits, overnight bank deposits or bankers’ acceptances having maturities of not more than one year from the date of acquisition thereof issued by any commercial bank or trust company; *provided* that such bank or trust company has capital, surplus and undivided profits aggregating in excess of €250 million (or the foreign currency equivalent thereof as of the date of such investment) and whose long term debt is rated “Baa3” or higher by Moody’s or BBB- or higher by Standard & Poor’s or the equivalent rating category of another internationally recognized rating agency;
- (3) repurchase obligations with a term of not more than seven days for underlying securities of the types described in clauses (1) and (2) entered into with any bank meeting the qualifications specified in clause (2) of this definition;

- (4) commercial paper rated at the time of acquisition thereof at least “A-2” “or the equivalent thereof by Standard & Poor’s Ratings Services or “P-2” or the equivalent thereof by Moody’s Investors Service, Inc., or carrying an equivalent rating by an internationally recognized rating agency, if both of the two named rating agencies cease publishing ratings of investments, and in any case maturing within one year after the date of acquisition thereof; and
- (5) interests in any investment company or money market fund which invests 95% or more of its assets in instruments of the type specified in clauses (1) through (4) of this definition.

“**Cash Management Liabilities**” has the meaning as defined in the Intercreditor Agreement.

“**Change of Control**” means the occurrence of any of the following:

- (1) for as long as no Public Market exists for the Capital Stock of the Issuer (or a Holding Company), the Issuer becoming aware of any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Holder acquiring and holding, directly or indirectly, the control over more than 50% of the issued and outstanding Voting Stock of the Issuer measured by voting power rather than number of shares;
- (2) at any time that a Public Market exists for the Capital Stock of the Issuer (or a Holding Company), the Issuer becoming aware of (i) any “person” or “group” of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Holder acquiring and holding, directly or indirectly, the control over more than 30% of the issued and outstanding Voting Stock of the Issuer measured by voting power rather than number of shares and (ii) Permitted Holders holding, directly or indirectly, the control over fewer of the issued and outstanding Voting Stock of the Issuer measured by voting power rather than number of shares than such other person or group;
- (3) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its Restricted Subsidiaries taken as a whole to a Person other than a Permitted Holder; or
- (4) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of assets of the Issuer.

“**Commodity Agreement**” means, with respect to any Person, any commodity or raw material futures contract, commodity of raw materials option, or any other similar agreement or arrangement designed to protect against or manage exposure to fluctuations in the price of commodity or raw materials actually used in the ordinary course of business of such Person.

“**Consolidated EBITDA**” for any period means, without duplication, the Consolidated Net Income for such period, plus to the extent deducted in calculating such Consolidated Net Income:

- (1) Fixed Charges for such period; plus
- (2) any amount of tax on profits, gains or income whether paid or accrued by the Issuer and its Restricted Subsidiaries for such period; plus
- (3) any amount attributable to any amortization of the Issuer and its Restricted Subsidiaries (including amortization of any goodwill arising from purchase accounting) and any depreciation of the Issuer and its Restricted Subsidiaries for such period; plus
- (4) the amount of any minority interest expenses deducted in calculating Consolidated Net Income; less
- (5) the following non-cash items taken into account in calculating such Consolidated Net Income:
 - (a) income from own work capitalized,
 - (b) income from the release of investment grants for fixed assets, or
 - (c) income from appreciation or revaluation of fixed assets

Notwithstanding the preceding sentence, clauses (2) and (3) relating to amounts of a Restricted Subsidiary of the Issuer will be added to Consolidated Net Income to compute Consolidated EBITDA of the Issuer

only to the extent (and in the same proportion) that the net income (loss) of such Restricted Subsidiary was included in calculating the Consolidated Net Income of the Issuer.

“Consolidated Net Income” means, for any period, the profit (loss) for the period of the Issuer and its Restricted Subsidiaries determined on a consolidated basis in accordance with GAAP; *provided*, however, that there shall not be included in such Consolidated Net Income.

- (1) any profit (loss) for the period of any Person (other than the Issuer) if such Person is not a Restricted Subsidiary, except that:
 - (a) subject to the limitations contained in clauses (2), (3) and (4) of this definition, the Issuer’s equity in the net income of any such Person for such period shall be included in such Consolidated Net Income up to the aggregate amount of cash actually distributed by such Person during such period to the Issuer or a Restricted Subsidiary as a dividend or other distribution or return on investment; and
 - (b) the Issuer’s equity in a net loss of any such Person (other than an Unrestricted Subsidiary) for such period shall be included in determining such Consolidated Net Income to the extent such loss has been funded with cash from the Issuer or a Restricted Subsidiary;
- (2) any net after-tax gain (loss) realized upon the sale or other disposition of any asset (including Capital Stock) of the Issuer or its Restricted Subsidiaries which is not sold or otherwise disposed of in the ordinary course of business (as determined in good faith by an Officer or the Board of Directors of the Issuer);
- (3) any net after-tax goodwill impairment;
- (4) the non-cash impact of any capitalized interest on any Subordinated Shareholder Debt;
- (5) solely for the purpose of determining the Consolidated EBITDA, the cumulative effect of a change in material accounting principles after the Issue Date for the relevant period;
- (6) any extraordinary gain, loss or charge;
- (7) any unrealized gains or losses in respect of Hedging Obligations or any ineffectiveness recognized in earnings related to qualifying hedge transactions or the fair value or changes therein recognized in earnings for derivatives that do not qualify as hedge transactions, in each case, in respect of Hedging Obligations;
- (8) (a) any asset impairments charges or the financial impacts of natural disasters (including fire, flood and storm and related events); (b)(x) any one-time non-cash charges or amortization or depreciation, or (y) any one-time cash charges, in each case, in relation to any acquisition of, or merger or consolidation with, another Person or business or resulting from any restructuring, reorganization, redundancy or severance; or (c) any start-up losses Incurred by the Issuer or any Restricted Subsidiary in connection with the construction or acquisition of new production sites in an aggregate amount not to exceed €10 million in any such period;
- (9) solely for the purpose of determining the amount available for Restricted Payments under clause (iii)(A) of the first paragraph under “—*Covenants—Limitation on Restricted Payments*”, any profit (loss) for the period of a Restricted Subsidiary (other than any Guarantor) which is subject to any restrictions, directly or indirectly, on distributions, except to the amount of cash actually received by the Issuer;
- (10) any expenses, charges or other costs related to the issuance of any Capital Stock, or any Permitted Investment, acquisition, disposition, recapitalization or listing or the Incurrence of Indebtedness permitted to be Incurred under the covenant described above under the caption “—*Covenants—Limitation on Indebtedness*” (including refinancing thereof) whether or not successful, including (i) such fees, expenses or charges related to any Incurrence of Indebtedness issuance and (ii) any amendment or other modification of any Incurrence;
- (11) any foreign currency translation gains or losses;
- (12) minority interest expense consisting of subsidiary income attributable to minority equity interests of third parties in any non-wholly owned Restricted Subsidiary in such period or any prior period, except to the extent of dividends declared or paid on, or other cash payments in respect of, Capital Stock held by such parties;

- (13) any expenses, charges, reserves or other costs (a) related to the offering of the Existing Notes as set forth under the caption “*Use of Proceeds*” of the offering memorandum relating to the Existing Notes or (b) Incurred in connection with (or in anticipation of) a PIK Notes Refinancing Event;
- (14) any non-cash compensation charge or expense arising from any grant of stock, stock options or other equity-based awards;
- (15) deferred financing costs written off and premium paid or other expenses Incurred directly in connection with any early extinguishment of Indebtedness and any net loss from any write-off or forgiveness of Indebtedness; and
- (16) income from loss transfers and profit transfer on the basis of partial profit transfer agreement.

“**Consolidated Net Leverage Ratio**” as of any date of determination, means the ratio of (1) Consolidated Total Net Indebtedness of the Issuer and its Restricted Subsidiaries to (2) the Issuer’s Consolidated EBITDA for the most recently ended four full fiscal quarter period for which internal financial statements are available immediately preceding the date on which such event for which such calculation is being made shall occur, with such *pro forma* adjustments to Consolidated EBITDA as are appropriate and consistent with the *pro forma* adjustment provisions set forth in the definition of “Fixed Charge Coverage Ratio”.

“**Consolidated Secured Debt Ratio**” as of any date of determination, means the ratio of (1) Consolidated Total Indebtedness of the Issuer and its Restricted Subsidiaries that is secured by Liens to (2) the Issuer’s Consolidated EBITDA for the most recently ended four full fiscal quarter period for which internal financial statements are available immediately preceding the date on which such event for which such calculation is being made shall occur, in each case with such *pro forma* adjustments to Consolidated Total Indebtedness and Consolidated EBITDA as are appropriate and consistent with the *pro forma* adjustment provisions set forth in the definition of “Fixed Charge Coverage Ratio”.

“**Consolidated Total Indebtedness**” means, as at any date of determination, an amount equal to the sum of (1) the aggregate principal amount of all outstanding Indebtedness (excluding clauses (1)(i) of the definition of “Indebtedness”) of the Issuer and its Restricted Subsidiaries on a consolidated basis consisting of Indebtedness for borrowed money, obligations in respect of Capitalized Lease Obligations and debt obligations evidenced by promissory notes and similar instruments (and excluding, for the avoidance of doubt, all obligations relating to Qualified Securitization Financings) and (2) the aggregate amount of all outstanding Disqualified Stock of the Issuer and all preferred stock of its Restricted Subsidiaries on a consolidated basis, with the amount of such Disqualified Stock and preferred stock equal to the greater of their respective voluntary or involuntary liquidation preferences and maximum fixed repurchase prices, in each case determined on a consolidated basis in accordance with GAAP. For purposes hereof, the “maximum fixed repurchase price” of any Disqualified Stock or preferred stock that does not have a fixed repurchase price shall be calculated in accordance with the terms of such Disqualified Stock or preferred stock as if such Disqualified Stock or preferred stock were purchased on any date on which Consolidated Total Indebtedness shall be required to be determined pursuant to the Conditions of Issue, and if such price is based upon, or measured by, the Fair Market Value of such Disqualified Stock or preferred stock, such Fair Market Value shall be determined reasonably and in good faith by the Issuer.

“**Consolidated Total Net Indebtedness**” means, as at any date of determination, Consolidated Total Indebtedness minus available cash and Cash-Equivalents.

“**Contingent Obligations**” means, with respect to any Person, any obligation of such Person guaranteeing in any manner, whether directly or indirectly, any operating lease, dividend or other obligation that, in each case, does not constitute Indebtedness (“**primary obligations**”) of any other Person (the “**primary obligor**”), including any obligation of such Person, whether or not contingent:

- (1) to purchase any such primary obligation or any property constituting direct or indirect security therefor;
- (2) to advance or supply funds:
 - (a) for the purchase or payment of any such primary obligation; or
 - (b) to maintain the working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor; or

- (3) to purchase property, securities or services primarily for the purpose of assuring the owner of any such primary obligation of the ability of the primary obligor to make payment of such primary obligation against loss in respect thereof.

“Credit Facility” means, one or more debt facilities (including, without limitation, the Super Senior Revolving Credit Facility), instruments or arrangements or commercial paper facilities or overdraft facilities or conditions of issue or trust deeds or indentures or note purchase agreements, in each case, with banks, other institutions, funds or investors, providing for revolving credit loans, receivables financing (including through the sale of receivables to such institutions or to special purpose entities formed to borrow from such institutions against such receivables), letters of credit, bonds, notes debentures or other corporate debt instruments or other Indebtedness, in each case, as amended, restated, modified, renewed, refunded, replaced, restructured, refinanced, repaid, increased or extended in whole or in part from time to time (and whether in whole or in part and whether or not with the original administrative agent and lenders or another administrative agent or agents or other banks or institutions and whether provided under the Super Senior Revolving Credit Facility or one or more other credit or other agreements, conditions of issue, trust deeds, indentures, financing agreements or otherwise) and in each case including all agreements, instruments and documents executed and delivered pursuant to or in connection with the foregoing (including any notes and letters of credit issued pursuant thereto and any Guarantee and collateral agreement, patent and trademark security agreement, mortgages or letter of credit applications and other Guarantees, pledges, agreements, security agreements and collateral documents). Without limiting the generality of the foregoing, the term “Credit Facility” shall include any agreement or instrument (1) changing the maturity of any Indebtedness Incurred thereunder or contemplated thereby, (2) adding Subsidiaries of the Issuer as additional borrowers, companies or guarantors thereunder, (3) increasing the amount of Indebtedness Incurred thereunder or available to be borrowed thereunder or (4) otherwise altering the terms and conditions thereof.

“Currency Agreement” means, in respect of a Person, any foreign exchange contract, currency swap agreement, currency futures contract, currency option contract, currency derivative or other similar agreement as to which such Person is a party or a beneficiary.

“Default” means any event which is, or after notice or passage of time or both would be, an Event of Default.

“Designated Non-Cash Consideration” means the Fair Market Value of non-cash consideration received by the Issuer or one of its Restricted Subsidiaries in connection with an Asset Disposition that is so designated as Designated Non-Cash Consideration pursuant to an Officers’ Request Certificate, setting forth the basis of such valuation, less the amount of cash or Cash Equivalents received in connection with a subsequent payment, redemption, retirement, sale or other disposition of such Designated Non-Cash Consideration. A particular item of Designated Non-Cash Consideration will no longer be considered to be outstanding when and to the extent it has been paid, redeemed or otherwise retired or sold or otherwise disposed of in compliance with the covenant described above under the caption “—*Covenants—Limitation on Sales of Assets*”.

“Disinterested Director” means, with respect to any transaction or series of related transactions, a member of the Issuer’s Board of Directors who does not have any personal stake in or with respect to such transaction or series of related transactions.

“Disqualified Stock” means, with respect to any Person, any Capital Stock of such Person which by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable) or upon the happening of any event:

- (1) matures or is mandatory redeemable pursuant to a sinking fund obligation or otherwise;
- (2) is convertible or exchangeable for Indebtedness or Disqualified Stock (excluding Capital Stock which is convertible or exchangeable solely at the option of the Issuer or a Restricted Subsidiary); or
- (3) is redeemable at the option of the holder of the Capital Stock in whole or in part, in each case on or prior to the date that is 91 days after the earlier of the date (a) of the stated maturity of the Notes or (b) on which there are no Notes outstanding; *provided*, however, that only the portion of Capital Stock which so matures or is mandatorily redeemable, is so convertible or exchangeable or is so redeemable at the option of the holder thereof prior to such date shall be deemed to be Disqualified Stock; *provided* further, however, that any Capital Stock that would constitute

Disqualified Stock solely because the holders thereof have the right to require the Issuer to repurchase such Capital Stock upon the occurrence of a change of control or asset disposition (each defined in a substantially identical manner to the corresponding definitions in the Conditions of Issue) shall not constitute Disqualified Stock if the terms of such Capital Stock (and all such securities into which it is convertible or for which it is ratable or exchangeable) provide that the Issuer may not repurchase or redeem any such Capital Stock (and all such securities into which it is convertible or for which it is ratable or exchangeable) pursuant to such provision prior to compliance by the Issuer with the provisions as set forth under “—*Repurchase at the Option of Holders upon a Change of Control*” and “—*Covenants—Limitation on Sales of Assets*” and such repurchase or redemption complies with “—*Covenants—Limitation on Restricted Payments*”.

“**Equity Offering**” means a bona fide underwritten primary public offering of Capital Stock (other than Disqualified Stock) of the Issuer or any Holding Company to the extent the proceeds from such offering are contributed to the Issuer’s common equity capital or are paid to the Issuer as consideration for the issuance of ordinary shares of the Issuer, either:

- (1) pursuant to a flotation on the Frankfurt Stock Exchange or any other nationally recognized stock exchange or listing authority in a member state of the European Union on 31 December 2003; or
- (2) pursuant to an effective registration statement under the Securities Act (other than a registration statement on Form S-8 or otherwise relating to Capital Stock issued or issuable under any employee benefit plan).

“**Escrowed Proceeds**” means the proceeds from the offering of any debt securities or other Indebtedness paid into escrow accounts with an independent escrow agent on the date of the applicable offering or incurrence pursuant to escrow arrangements that permit the release of amounts on deposit in such escrow accounts upon satisfaction of certain conditions or the occurrence of certain events. The term “Escrowed Proceeds” shall include any interest earned on the amounts held in escrow.

“**Euro Equivalent**” means, with respect to any monetary amount in a currency other than euro, at any time of determination thereof, the amount of euro obtained by converting such currency other than euro involved in such computation into euro at the spot rate for the purchase of euro with the applicable currency other than euro as published in the Financial Times in the “Currency and Financial Data” section (or if the Financial Times is no longer published, or if such information is no longer available in the Financial Times, such source as may be selected in good faith by the Issuer) on the date of such determination. Except as expressly provided otherwise, whenever it is necessary to determine whether the Issuer or any of its Restricted Subsidiaries has complied with any covenant or other provision in the Conditions of Issue or if there has occurred an Event of Default and an amount is expressed in a currency other than the euro, such amount will be treated as the Euro Equivalent determined as of the date such amount is initially determined in such non-euro currency.

“**European Government Obligations**” means any security that is (1) a euro denominated direct obligation of Austria, France, Germany, the Netherlands or any other Permissible Jurisdiction, for the payment of which the full faith and credit of such country is pledged or (2) an obligation of a person controlled or supervised by and acting as an agency or instrumentality of any such country the payment of which is unconditionally Guaranteed as a full faith and credit obligation by such country, which, in either case under the preceding clause (1) or (2), is not callable or redeemable at the option of the issuer thereof.

“**Fair Market Value**” means the value that would be paid by a willing buyer to an unaffiliated willing seller in an arm’s length transaction not involving distress or necessity of either party, determined in good faith by the principal financial officer and the principal executive officer of the Issuer or the Board of Directors of the Issuer.

“**Financial Indebtedness**” means any Indebtedness described under clauses (1)(a), (1)(b), (1)(e), (1)(f) and (1)(h) of the definition of “Indebtedness”.

“**Fixed Charge Coverage Ratio**” means as of any date of determination, with respect to the Issuer and its Restricted Subsidiaries, the ratio of (i) the aggregate amount of Consolidated EBITDA for the period of the most recently ended four consecutive full fiscal quarters ending prior to the date of such determination

for which consolidated financial statements of the Issuer are available to (ii) Fixed Charges for such four consecutive full fiscal quarters; *provided*, however, that:

- (1) if the Issuer or any Restricted Subsidiary:
 - (a) has Incurred any Indebtedness since the beginning of such period that remains outstanding on such date of determination or if the transaction giving rise to the need to calculate the Fixed Charge Coverage Ratio is an Incurrence of Indebtedness, Consolidated EBITDA and Fixed Charges for such period shall be calculated after giving effect on a *pro forma* basis to such Indebtedness as if such Indebtedness had been Incurred on the first day of such period (except that in making such computation, the amount of Indebtedness under any revolving credit facility outstanding on the date of such calculation shall be deemed to be (i) the average daily balance of such Indebtedness during such four quarter period or such shorter period for which such facility was outstanding or (ii) if such facility was created after the end of such four quarter period, the average daily balance of such Indebtedness during the period from the date of creation of such facility to the date of such calculation); or
 - (b) has repaid, repurchased, defeased or otherwise discharged any Indebtedness since the beginning of the period that is no longer outstanding on such date of determination or if the transaction giving rise to the need to calculate the Fixed Charge Coverage Ratio involves a discharge of Indebtedness (in each case other than Indebtedness Incurred under any revolving credit facility unless such Indebtedness has been permanently repaid and the related commitment terminated), Consolidated EBITDA and Fixed Charges for such period shall be calculated after giving effect on a *pro forma* basis to such discharge of such Indebtedness, including with the proceeds of such new Indebtedness, as if such discharge had occurred on the first day of such period;
- (2) the *pro forma* calculation of Fixed Charges shall not give effect to (i) any Indebtedness Incurred on such date of calculation pursuant to the provisions described in the second paragraph described under “—*Covenants—Limitation on Indebtedness*” (other than for the purposes of the calculation of the Fixed Charge Coverage Ratio under clause (x) thereunder) or (ii) the discharge on such date of calculation of any Indebtedness to the extent that such discharge results from the proceeds Incurred pursuant to the provisions described in the second paragraph described under “—*Covenants—Limitation on Indebtedness*”;
- (3) if since the beginning of such period the Issuer or any Restricted Subsidiary will have made any Asset Disposition or discontinued any company, division, operating unit, segment, business or line of business or if the transaction giving rise to the need to calculate the Fixed Charge Coverage Ratio includes such a transaction:
 - (a) the Consolidated EBITDA for such period shall be reduced by an amount equal to the Consolidated EBITDA (if positive) directly attributable to the assets which are the subject of such Asset Disposition or discontinuation for such period or increased by an amount equal to the Consolidated EBITDA (if negative) directly attributable thereto for such period; and
 - (b) Fixed Charges for such period shall be reduced by an amount equal to the Fixed Charges directly attributable to any Indebtedness of the Issuer or any Restricted Subsidiary repaid, repurchased, defeased or otherwise discharged with respect to the Issuer and its continuing Restricted Subsidiaries in connection with such Asset Disposition or discontinuation for such period (or, if the Capital Stock of any Restricted Subsidiary is sold, Fixed Charges for such period shall be reduced by the amount of Fixed Charges directly attributable to the Indebtedness of such Restricted Subsidiary to the extent the Issuer and its continuing Restricted Subsidiaries are no longer liable for such Indebtedness after such sale);
- (4) if since the beginning of such period the Issuer or any Restricted Subsidiary (by merger or otherwise) will have made an Investment in any Restricted Subsidiary (or any Person which becomes a Restricted Subsidiary or is merged with or into the Issuer) or an acquisition of assets, including any acquisition of assets occurring in connection with a transaction requiring a calculation to be made hereunder, and which constitutes all or substantially all of a company, division, operating unit, segment, business, group of related assets or line of business, Consolidated EBITDA and Fixed Charges for such period shall be calculated after giving *pro forma* effect thereto (including the Incurrence of any Indebtedness) as if such Investment or acquisition occurred on the first day of such period; and

- (5) if since the beginning of such period any Person (that subsequently became a Restricted Subsidiary or was merged with or into the Issuer or any Restricted Subsidiary since the beginning of such period) will have Incurred any Indebtedness or discharged any Indebtedness, made any Asset Disposition or any Investment or acquisition of assets that would have required an adjustment pursuant to clause (3) or (4) of this definition if made by the Issuer or a Restricted Subsidiary during such period, Consolidated EBITDA and Fixed Charges for such period shall be calculated after giving *pro forma* effect thereto as if such Incurrence or discharge of Indebtedness, Asset Disposition or Investment or acquisition of assets occurred on the first day of such period.

For purposes of this definition, whenever *pro forma* effect is to be given to any calculation under this definition, the *pro forma* calculations (including, without limitation, in respect of anticipated expense or cost savings and expense or cost synergies relating to any such transaction) shall be determined in good faith by a responsible financial or accounting officer of the Issuer. If any Indebtedness bears a floating rate of interest and is being given *pro forma* effect, the interest expense on such Indebtedness shall be calculated as if the rate in effect on the date of determination had been the applicable rate for the entire period (taking into account any Interest Rate Agreement applicable to such Indebtedness).

“**Fixed Charges**” means, with respect to the Issuer and its Restricted Subsidiaries for any period, the sum, without duplication, of:

- (1) the consolidated interest expense (net of interest income) of the Issuer and its Restricted Subsidiaries for such period, whether paid or accrued, including without limitation:
 - (a) amortization of debt discount, debt issuance costs, commissions, fees, discounts, prepayment fees, premium or charges and other finance costs in respect of Financial Indebtedness whether paid or payable and depreciation of any such financing costs capitalized during such period (but excluding in each case (x) financing costs such as legal fees, advisory costs, security valuation expenses or similar expenses, (y) any commissions, fees, discounts, prepayment fees, premium, swap termination costs or other charges or payments Incurred in connection with the offering of the Notes or in connection with (or in anticipation of) a PIK Notes Refinancing Event and (z) commissions, discounts, yield and other fees and charges related to any Qualified Securitization Financing), and
 - (b) the interest portion of any deferred payment obligation with respect to any Financial Indebtedness; plus
- (2) any interest on Indebtedness of another Person that is guaranteed by the Issuer or one of its Restricted Subsidiaries or secured by a Lien on assets of the Issuer or one of its Subsidiaries whether or not such Guarantee or Lien is called upon; plus
- (3) the product of (a) all dividends, whether paid or accrued and whether or not in cash, on any series of Disqualified Stock of the Issuer or on any series of preferred stock of any Restricted Subsidiaries of the Issuer other than dividends to the Issuer or a Restricted Subsidiary of the Issuer, times (b) a fraction, the numerator of which is one and the denominator of which is one minus the then current combined federal, state and local statutory tax rate of such Person, expressed as a decimal, in each case, determined on a consolidated basis in accordance with GAAP; plus
- (4) interest expense attributable to Capitalized Lease Obligations; plus
- (5) non-cash interest expense; plus
- (6) costs associated with Hedging Obligations related to Indebtedness (but excluding any non-cash interest expense or income attributable to the movement in the mark to market valuation thereof); plus
- (7) interest expense capitalized during such period (but excluding such interest on Subordinated Shareholder Debt).

“**GAAP**” means generally accepted accounting principles in the Federal Republic of Germany and in effect on the Issue Date, or with respect to the covenant described under “—*Covenants—Reports*”, as in effect from time to time; provided, however, that at any time after the Issue Date, the Issuer may elect to apply IFRS for the purposes of the Conditions of Issue, and from and after such election references herein to GAAP shall be deemed to be references to IFRS and all defined terms in the Conditions of Issue, and all ratios and computations based on GAAP shall be computed in conformity with IFRS, from and after any such election.

“Group” means the Issuer and its consolidated Subsidiaries.

“Guarantee” means any obligation, contingent or otherwise, of any Person directly or indirectly guaranteeing any Indebtedness of any other Person, including any such obligation, direct or indirect, contingent or otherwise, of such Person:

- (1) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness of such other Person (whether arising by virtue of partnership arrangements, or by agreement to keep-well, to purchase assets, goods, securities or services, to take-or-pay, or to maintain financial statement conditions or otherwise); or
- (2) entered into for purposes of assuring in any other manner the obligee of such Indebtedness of the payment thereof or to protect such obligee against loss in respect thereof (in whole or in part);

provided, however, that the term “Guarantee” shall not include endorsements for collection or deposit in the ordinary course of business. The term “Guarantee” used as a verb has a corresponding meaning.

“Hedging Agreements” means any Interest Rate Agreement, Currency Agreement or Commodity Agreement.

“Hedging Obligations” of any Person means the obligations of such Person pursuant to any Hedging Agreement.

“Holder” means any holder of a proportionate co-ownership or other beneficial interest or right in the Notes.

“Holding Company” means any Person of which the Issuer at any time is or becomes a Subsidiary after the Issue Date and any holding companies established by any Permitted Holder for purposes of holding its investment in any Holding Company.

“Holding Company Expenses” means:

- (1) costs (including all professional fees and expenses) Incurred by any Holding Company in connection with reporting obligations under or otherwise Incurred in connection with compliance with applicable laws, rules or regulations of any governmental, regulatory or self-regulatory body or stock exchange, the Conditions of Issue or any other agreement or instrument relating to Indebtedness of the Issuer or any Restricted Subsidiary;
- (2) customary indemnification obligations of any Holding Company owing to directors, officers, employees or other Persons under its charter or by-laws or pursuant to written agreements with any such Person to the extent relating to the Issuer and its Subsidiaries;
- (3) obligations of any Holding Company in respect of director and officer insurance (including premiums therefor) to the extent relating to the Issuer and its Subsidiaries;
- (4) fees and expenses payable by a Holding Company in connection with (or in anticipation of) a PIK Notes Refinancing Event;
- (5) reasonable general corporate overhead expenses, including but not limited to (a) professional fees and expenses and other operational expenses of any Holding Company related to the ownership or operation of the business of the Issuer or any of its Restricted Subsidiaries, (b) costs and expenses with respect to any litigation or other dispute relating to a PIK Notes Refinancing Event or the ownership or operations, directly or indirectly, by any Holding Company, (c) any taxes and other fees and expenses required to maintain such Holding Company’s corporate existence and to provide for other ordinary course operating costs, including reasonable customary salary, bonus and other benefits payable to, and indemnities provided on behalf of, officers and employees of such Holding Company and (d) to reimburse reasonable out of pocket expenses of the Board of Directors of such Holding Company;
- (6) expenses Incurred by any Holding Company in connection with any sale of Capital Stock or Indebtedness:
 - (a) where the net proceeds of such offering or sale are intended to be received by or contributed to the Issuer or a Restricted Subsidiary;
 - (b) in a pro-rated amount of such expenses in proportion to the amount of such net proceeds intended to be so received or contributed; or

- (c) otherwise on an interim basis prior to completion of such offering so long as any Holding Company shall cause the amount of such expenses to be repaid to the Issuer or the relevant Restricted Subsidiary out of the proceeds of such offering promptly if completed; and
- (7) any (i) income taxes, to the extent such income taxes are attributable to the income of the Issuer and its Restricted Subsidiaries and, to the extent of the amount actually received in cash from its Unrestricted Subsidiaries, in amounts required to pay such taxes to the extent attributable to the income of such Unrestricted Subsidiaries and (ii) value added taxes to be paid by any Holding Company in respect of any payments made under clauses (1) through (6) above or as controlling company of a value added tax group for the members of such value added tax group, but only to the extent such value added taxes are attributable to the Issuer and its Restricted Subsidiaries and, to the extent corresponding amounts are actually received in cash from its Unrestricted Subsidiaries, in amounts required to pay such taxes to the extent attributable to such Unrestricted Subsidiaries;

provided, in each case, that such expense relates to the Issuer and its Subsidiaries in the ordinary course of business and has been deducted from Consolidated Net Income as an expense.

“**IFRS**” means the International Financial Reporting Standards as endorsed by the European Union and in effect on the date of any calculation or determination required hereunder.

“**Incur**” means issue, create, assume, Guarantee, incur or otherwise become liable for (contingently or otherwise); *provided*, however, that any Indebtedness or Capital Stock of a Person existing at the time such Person becomes a Restricted Subsidiary (whether by merger, consolidation, acquisition or otherwise) shall be deemed to be Incurred by such Restricted Subsidiary at the time it becomes a Restricted Subsidiary; and further *provided* that for purposes of the first paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*,” “the obligation to pay the deferred and unpaid purchase price of property is considered Incurred on the date of signing the related purchase agreement if the delivery and taking title of such property under such purchase agreement is not subject to any conditions within the control of the purchaser and such delivery and taking title of such property will be completed less than six months after the signing of the related purchase agreement. The terms “**Incurred**” and “**Incurrence**” have meanings correlative to the foregoing.

“**Indebtedness**”

- (1) means, with respect to any Person on any date of determination (without duplication):
 - (a) the principal of indebtedness for borrowed money;
 - (b) the principal of obligations evidenced by bonds, debentures, notes or other similar instruments;
 - (c) all reimbursement obligations in respect of letters of credit, bankers’ acceptances or other similar instruments (except to the extent such reimbursement obligation relates to a trade payable or other obligation not constituting Indebtedness and such obligation is satisfied within 30 days of Incurrence);
 - (d) obligations to pay the deferred and unpaid purchase price of property (except trade payables or similar obligations to trade creditors accrued in the ordinary course of business), which purchase price is due more than six months after the date of placing such property in service or taking delivery and title thereto;
 - (e) Capitalized Lease Obligations;
 - (f) the principal component or liquidation preference of all obligations of such Person with respect to the redemption, repayment or other repurchases of any Disqualified Stock or, with respect to any Restricted Subsidiary, preferred stock (but excluding any accrued dividends);
 - (g) the principal component of Indebtedness of other Persons to the extent Guaranteed by the Issuer or a Restricted Subsidiary;
 - (h) the principal component of all Indebtedness of other Persons secured by a Lien on any asset of the Issuer or any Restricted Subsidiary, whether or not such Indebtedness is assumed by the Issuer or any Restricted Subsidiary; *provided*, however, that the amount of such

Indebtedness will be the lesser of (a) the Fair Market Value of such assets at such date of determination and (b) the amount of such Indebtedness of such other Person; and

- (i) to the extent not otherwise included in this definition, net obligations of such Person under Hedging Obligations (the amount of any such obligations to be equal at any time to the termination value of such agreement or arrangement giving rise to such obligation that would be payable by such Person at such time),

if and to the extent any of the preceding items (other than letters of credit and Hedging Obligations) would appear as a liability upon a balance sheet (excluding the footnotes thereto) of the specified Person prepared in accordance with GAAP.
- (2) Notwithstanding the other provisions of this definition, in no event shall the following constitute Indebtedness:
 - (a) Subordinated Shareholder Debt;
 - (b) in connection with the purchase by the Issuer or any Restricted Subsidiary of any business, any post-closing payment adjustments to which the seller may become entitled to the extent such payment is determined by a final closing balance sheet or such payment depends on the performance of such business after the closing; *provided*, however, that, at the time of closing, the amount of any such payment is not determinable and to the extent such payment thereafter becomes fixed and determined, the amount is paid within 30 days thereafter;
 - (c) anything accounted for as an operating lease under GAAP or IFRS (each, as in effect on the Issue Date) and any guarantee given by the Issuer or any of its Restricted Subsidiaries in the ordinary course of business solely in connection with, and in respect of, the obligation of the Issuer or any of its Restricted Subsidiaries under any operating lease;
 - (d) Contingent Obligations in the ordinary course of business; or
 - (e) for the avoidance of doubt, any obligations in respect of workers' compensation claims, early retirement or termination obligations, pension fund obligations or contributions or similar claims, obligations or contributions or social security or wage Taxes.
- (3) In addition, "Indebtedness" of any Person shall include Indebtedness described in clause (1) of this definition that would not appear as a liability on the balance sheet of such person if:
 - (a) such Indebtedness is the obligation of a partnership or joint venture that is not a Restricted Subsidiary (a "**Joint Venture**");
 - (b) such Person or a Restricted Subsidiary of such Person is a general partner of the Joint Venture (a "**General Partner**"); and
 - (c) there is recourse, by contract or operation of law, with respect to the payment of such Indebtedness to property or assets of such Person or a Restricted Subsidiary of such Person; and then such Indebtedness shall be included in an amount not to exceed:
 - (i) the lesser of (A) the net assets of the General Partner and (B) the amount of such obligations to the extent that there is recourse, by contract or operation of law, to the property or assets of such Person or a Restricted Subsidiary of such Person; or
 - (ii) if less than the amount determined pursuant to the preceding clause (3)(c)(i) of this definition, the actual amount of such Indebtedness that is recourse to such Person or a Restricted Subsidiary of such Person, if the Indebtedness is evidenced in writing and is for a determinable amount and the related interest expense shall be included in Fixed Charges to the extent actually paid by the Issuer or its Restricted Subsidiaries.

"Intercreditor Agreement" means the intercreditor agreement entered into on April 29, 2015 between, among others, the Security Agent, the agent for the Super Senior Revolving Credit Facility and the other parties named therein, as further amended, restated, replaced or otherwise modified or varied from time to time.

"Interest Rate Agreement" means with respect to any Person any interest rate protection agreement, interest rate future agreement, interest rate option agreement, interest rate swap agreement, interest rate cap agreement, interest rate collar agreement, interest rate hedge agreement or other similar agreement or arrangement as to which such Person is party or a beneficiary.

“Investment” in any Person means any direct or indirect advance, loan or other extensions of credit (including by way of Guarantee or similar arrangement) (in each case, other than advances, loans or other extensions of credit to customers or suppliers in the ordinary course of business) or capital contribution to (by means of any transfer of cash or other property to others or any payment for property or services for the account or use of others), or any purchase or acquisition of Capital Stock, Indebtedness or other similar instruments issued by such Person and all other items that are or would be classified as investments on a balance sheet prepared in accordance with GAAP.

For purposes of the definition of “Unrestricted Subsidiary” and the covenant set forth under “—Covenants—Limitation on Restricted Payments”, “Investment” shall include the portion (proportionate to the Issuer’s equity interest in a Restricted Subsidiary to be designated as an Unrestricted Subsidiary) of the Fair Market Value of the net assets of such Restricted Subsidiary at the time that such Restricted Subsidiary is designated an Unrestricted Subsidiary; provided, however, that upon a re-designation of such Subsidiary as a Restricted Subsidiary, the Issuer shall be deemed to continue to have a permanent “Investment” in an Unrestricted Subsidiary in an amount (if positive) equal to the excess of the Issuer’s “Investment” in such Subsidiary at the time of such re-designation less the portion (proportionate to the Issuer’s equity interest in such Subsidiary) of the Fair Market Value of the net assets of such Subsidiary at the time that such Subsidiary is so re-designated a Restricted Subsidiary.

Any property transferred to or from an Unrestricted Subsidiary shall be valued at its Fair Market Value at the time of such transfer, except as would otherwise be required in relation to the valuation of a Restricted Payment pursuant to the covenant set forth under “—Covenants—Limitation on Restricted Payments” covenant. If the Issuer or any Restricted Subsidiary sells or otherwise disposes of any Voting Stock of any direct or indirect Restricted Subsidiary such that, after giving effect to any such sale or disposition, such Person is no longer a Restricted Subsidiary, the Issuer will be deemed to have made an Investment on the date of any such sale or disposition equal to the Fair Market Value of the Issuer’s Investments in such Restricted Subsidiary that were not sold or disposed of.

The amount of any Investment outstanding at any time shall be the original cost of such Investment, reduced by any dividend, distribution, interest payment, return of capital, repayment or other amount or value received in respect of such Investment.

“Investment Grade Rating” means with respect to Moody’s Investors Service Inc., a rating of Baa3 or higher and with respect to Standard & Poor’s Ratings Group, Inc., a rating of BBB – or higher.

“Issue Date” means March 27, 2018.

“Issuer Share Pledges” means the pledges over the shares in the Issuer to be granted by the Parent and other holders of the shares in the Issuer as collateral in relation to, *inter alia*, the Notes, the Note Guarantees, the Existing Notes, the Super Senior Revolving Credit Facility, the Senior Secured Facilities, the Priority Hedging Obligations and the Cash Management Liabilities, respectively.

“Lien” means any mortgage, pledge, encumbrance, easement, deposit arrangement, security interest, lien or charge of any other kind of security right in rem (including with respect to any Capitalized Lease Obligation, conditional sales, or other title retention agreement having substantially the same economic effect as any of the foregoing), whether or not filed, recorded or otherwise perfected under applicable law.

“Management Advances” means loans or advances made to, or Guarantees with respect to loans or advances made to, directors, officers, employees or consultants of the Issuer or any Restricted Subsidiary:

- (1) (a) in respect of travel, entertainment or moving related expenses Incurred in the ordinary course of business or (b) for purposes of funding any such person’s purchase of Capital Stock or Subordinated Shareholder Debt (or similar obligations) of the Issuer or its Subsidiaries with (in the case of this sub-clause (b)) the approval of the Board of Directors of the Issuer;
- (2) in respect of moving related expenses Incurred in connection with any closing or consolidation of any facility or office; or
- (3) not exceeding €1 million in the aggregate outstanding at any time.

“Minority Shareholder Payment” means any payment of dividends by the Issuer to the holders of its Capital Stock (other than the Parent) on no more than a *pro rata* basis, *provided* that any such payments are made in connection with any Restricted Payments pursuant to clauses (xi), (xii), (xiii) or (xvi) of the second paragraph of the covenant set forth under “—Covenants—Limitation on Restricted Payments”; and further *provided* that any such payments made in connection with any Restricted Payments pursuant to clause (xii)

of the second paragraph of the covenant set forth under “—*Covenants—Limitation on Restricted Payments*” shall be calculated on the basis of relevant participations held by any minority shareholders in the Issuer as of the Issue Date.

“**Net Available Cash**” from an Asset Disposition means cash payments received (including any cash payments received by way of deferred payment of principal pursuant to a note or instalment receivable or otherwise and net proceeds from the sale or other disposition of any securities received as consideration, but only as and when received, but excluding any other consideration received in the form of assumption by the acquiring Person of Indebtedness or other obligations relating to the properties or assets that are the subject of such Asset Disposition or received in any other non-cash form) therefrom, in each case net of:

- (1) all legal, accounting, investment banking, and other fees and expenses Incurred, and all taxes required to be paid or accrued as a liability under GAAP as a consequence of such Asset Disposition;
- (2) all payments made on any Indebtedness which is secured on a higher priority than the Notes by any assets subject to such Asset Disposition, in accordance with the terms of any Lien upon such assets, or which must by its terms, or in order to obtain a necessary consent to such Asset Disposition, or by applicable law be repaid out of the proceeds from such Asset Disposition;
- (3) all distributions and other payments required to be made to minority interest holders in any of the Issuer’s Subsidiaries or joint ventures as a result of such Asset Disposition;
- (4) the deduction of appropriate amounts to be provided for by the seller as a reserve, in accordance with GAAP, against any liabilities associated with the assets disposed of in such Asset Disposition and retained by the Issuer or any Restricted Subsidiary after such Asset Disposition; and
- (5) any portion of the purchase price from an Asset Disposition required by the terms of the sale agreements to be placed in escrow (A) to provide assurance to the purchaser that the seller will be able to satisfy its indemnification and other obligations with respect to such sale and (B) which escrow is not under the sole control of the Issuer or any of its Subsidiaries; *provided*, however, that upon the termination of that escrow, Net Available Cash shall be increased by any portion of funds in the escrow that are released to the Issuer or any Restricted Subsidiary.

“**Net Cash Proceeds**” means, with respect to any issuance or sale of Capital Stock or Indebtedness, the cash proceeds of such issuance or sale net of attorneys’ fees, accountants’ fees, underwriters’ or placement agents’ fees, listing fees, discounts or commissions and brokerage, consultant and other fees and charges actually Incurred in connection with such issuance or sale and net of taxes paid or payable as a result of such issuance or sale (after taking into account any available tax credit or deductions and any tax sharing arrangements).

“**Officer**” means, with respect to any Person, (1) any managing director, director or member of the management board or senior executive (a) of such Person or (b) if such Person is owned or managed by a single entity, of such entity, or (2) any other individual designated as an “Officer” for the purposes of the Conditions of Issue by the Board of Directors of such Person.

“**Officers’ Request Certificate**” means, with respect to any Person, a certificate signed by two Officers of such Person.

“**Opinion of Counsel**” means a written opinion from legal counsel reasonably satisfactory to the intended recipient under the Conditions of Issue. The counsel may be an employee of or counsel to the Issuer.

“**Packaging Park Customer**” means any customer of the Group that is a party to a Packaging Park Project.

“**Packaging Park Financing Party**” means any bank, financial institution, lender, project or equipment finance provider, leasing company, supplier, equipment manufacturer or other party that provides financing or refinancing for a Packaging Park Project.

“**Packaging Park Project**” means any project, agreement or other arrangement to which the Issuer or any Restricted Subsidiaries are or become a party and which provide for the establishment, acquisition, design, installation, construction, expansion, modification, financing or refinancing of either (i) a packaging facility of a customer of the Group on, or in close proximity to, land owned or leased by the Issuer or a Restricted Subsidiary or (ii) a corrugated board production site of the Issuer or a Restricted Subsidiary on, or in close proximity to, land owned or leased by a customer of the Group.

“**Parent**” means JH-Holding GmbH, until a Person shall have become the Successor Company to the Parent and thereafter “Parent” shall mean such Successor Company.

“**Pari Passu Indebtedness**” means, in the case of the Notes, any Indebtedness of the Issuer that ranks equally in right of payment with the Notes and, in the case of the Guarantors, any Indebtedness of the applicable Guarantor that ranks equally in right of payment to the Note Guarantee of such Guarantor.

“**Permissible Jurisdiction**” means any member state of the European Union on December 31, 2003 (other than Greece, Ireland, Italy, Portugal and Spain).

“**Permitted Collateral Liens**” means:

- (1) Liens on the Collateral to secure the Indebtedness under the Existing Notes, the Senior Secured Facilities and the Notes (or the Note Guarantees) issued on the Issue Date and any Refinancing Indebtedness in respect thereof; *provided* that all property and assets (including, without limitation, the Collateral) securing such Refinancing Indebtedness secures the Notes or the Note Guarantees on a senior or *pari passu* basis; *provided* further that each of the parties thereto will have entered into the Intercreditor Agreement or an Additional Intercreditor Agreement;
- (2) Liens on the Collateral to secure Indebtedness under a Credit Facility that is permitted by clause (i) of the second paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*” which may have super priority not materially less favorable to the Holders than that accorded to the Super Senior Revolving Credit Facility as provided in the Intercreditor Agreement or any Additional Intercreditor Agreement, as the case may be; *provided* that all property and assets (including, without limitation, the Collateral) securing such Indebtedness also secures the Notes or the Note Guarantees on a senior or *pari passu* basis; *provided* further that each of the parties thereto will have entered into the Intercreditor Agreement or an Additional Intercreditor Agreement;
- (3) Liens on the Collateral securing the Issuer’s or any Restricted Subsidiary’s (x) obligations under Hedging Obligations permitted by clause (vi) of the second paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*” or (y) Cash Management Liabilities permitted by clause (xi)(e) of the second paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*”; *provided* that a Lien in favor of Priority Hedging Obligations and Cash Management Liabilities may have super priority not materially less favorable to the Holders than that accorded to the Super Senior Revolving Credit Facility as provided in the Intercreditor Agreement or any Additional Intercreditor Agreement, as the case may be; *provided* that all property and assets securing such Indebtedness also secures the Notes or the Note Guarantees; *provided* further that each of the parties thereto will have entered into the Intercreditor Agreement or an Additional Intercreditor Agreement;
- (4) Liens securing Indebtedness Incurred pursuant to clause (ix) (other than with respect to Capitalized Lease Obligations) of the second paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*”; *provided* that all property and assets (including, without limitation, the Collateral) securing such Indebtedness also secures the Notes or the Note Guarantees on a senior or *pari passu* basis; *provided* further that each of the parties thereto will have entered into the Intercreditor Agreement or an Additional Intercreditor Agreement;
- (5) Liens securing Indebtedness Incurred pursuant to clause (xiii) of the second paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*”; *provided* that all property and assets (including, without limitation, the Collateral) securing such Indebtedness also secures the Notes or the Note Guarantees on a senior or *pari passu* basis; *provided* further that each of the parties thereto will have entered into the Intercreditor Agreement or an Additional Intercreditor Agreement;
- (6) (x) Liens securing Indebtedness Incurred pursuant to the first paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*” and (y) Liens on Securitization Assets and related assets Incurred in connection with any Qualified Securitization Financing; *provided* that, in each case of clauses (x) and (y), such Liens also secure the Notes on an equal and ratable basis;
- (7) Liens described in clauses (1), (2), (3), (4), (5), (6), (10), (11), (13)(b), (18), (20), (21), (22), (23), (24), (25) and (28) of the definition of “Permitted Liens” and that, in each case, would not materially interfere with the ability of the Security Agent to enforce any Lien over the Collateral; and

(8) Liens described in clauses (29), (30) or (31) of the definition of “Permitted Liens”.

“**Permitted Holders**” means:

- (1) the Parent, Jürgen Heindl, Maximilian Heindl and Vinzenz Heindl;
- (2) the parents, spouse, siblings or any direct descendants of any of Jürgen Heindl, Maximilian Heindl and Vinzenz Heindl;
- (3) the parents of any spouse of Jürgen Heindl, Maximilian Heindl and Vinzenz Heindl; and
- (4) any trust, corporation, partnership, limited liability company or other entity, the beneficiaries, shareholders, partners, members, owners or Persons beneficially holding 50.1% or more of the Voting Stock (or equivalent interest) therein consist of any one or more Persons referred to in the immediately preceding clauses (1) through (3).

“**Permitted Investment**” means an Investment by the Issuer or any Restricted Subsidiary:

- (1) in the Issuer or a Restricted Subsidiary;
- (2) in a Person, if as a result of such Investment, such other Person becomes a Restricted Subsidiary or is merged or consolidated with or into, or transfers or conveys all or substantially all its assets to, the Issuer or a Restricted Subsidiary; *provided*, however, that such Person’s primary business is a Related Business;
- (3) in any joint venture, Unrestricted Subsidiary or Person that is engaged in a Related Business (whether as a result of an Investment by the Issuer or any Restricted Subsidiary or an Investment by another Person which results in the creation of such joint venture or Person); *provided* that all Investments made pursuant to this clause (3) shall not exceed the greater of (a) €30 million and (b) 15% of Consolidated EBITDA in the aggregate at any one time outstanding;
- (4) in Capital Stock, obligations or securities received (i) in settlement of debts created in the ordinary course of business and owing to the Issuer or any Restricted Subsidiary, (ii) as a result of foreclosure, perfection or enforcement of any Lien, (iii) in satisfaction of judgments or (iv) pursuant to any plan of reorganization or similar arrangement upon the bankruptcy or insolvency of a debtor;
- (5) in existence on the Issue Date or made pursuant to legally binding commitments in existence on, the Issue Date, and any extension, modification or renewal of any such Investments, but only to the extent not involving additional Investments;
- (6) in connection with a Qualified Securitization Financing, including Investments of funds held in accounts permitted or required by the arrangements governing such Qualified Securitization Financing or any related Indebtedness;
- (7) in the Notes;
- (8) in cash and Cash Equivalents;
- (9) acquired by the Issuer or any Restricted Subsidiary in connection with an asset disposition exempted from the definition of “Asset Disposition” or permitted under “—*Covenants—Limitation on Sale of Assets*” to the extent such Investments are non-cash proceeds or deemed cash proceeds as permitted under such covenant;
- (10) Hedging Obligations, which transactions or obligations are incurred in compliance with the “—*Covenants—Limitation on Indebtedness*” covenant;
- (11) Guarantees of Indebtedness permitted to be incurred by the covenant described under the “—*Covenants—Limitation on Indebtedness*” covenant and (other than with respect to Indebtedness) guarantees, keepwells and similar arrangements in the ordinary course of business;
- (12) acquired after the Issue Date as a result of the acquisition by the Issuer or any Restricted Subsidiary of another Person (including by way of a merger, amalgamation or consolidation with or into the Issuer or any of its Restricted Subsidiaries in a transaction that is not prohibited by the covenant described under “—*Covenants—Merger and Consolidation*”) after the Issue Date; *provided* that such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisition, merger, amalgamation or consolidation;

- (13) any acquisition of assets or Capital Stock solely in exchange for the issuance of Capital Stock (other than Disqualified Stock) of the Issuer or Subordinated Shareholder Debt;
- (14) Management Advances;
- (15) taken together with all other Investments made pursuant to this clause (15) and at any time outstanding, in an aggregate amount at the time of such Investment not to exceed €30 million; *provided* that if an Investment is made pursuant to this clause in a Person that is not a Restricted Subsidiary and such Person subsequently becomes a Restricted Subsidiary or is subsequently designated a Restricted Subsidiary pursuant to “—*Covenants—Restricted and Unrestricted Subsidiaries*”, such Investment shall thereafter be deemed to have been made pursuant to clause (1) or (2) of the definition of “Permitted Investments” and not this clause; and
- (16) in connection with any customary cash management, cash pooling or netting or setting-off arrangements (including, for the avoidance of doubt, any Cash Management Liabilities) entered into in the ordinary course of business (as determined in good faith by the Issuer’s Board of Directors).

“**Permitted Liens**” means:

- (1) pledges, deposits or Liens under workmen’s compensation laws, unemployment insurance laws, social security laws or similar legislation, or insurance-related obligations, or in connection with bids, tenders, completion guarantees, contracts (other than for the payment of Indebtedness), warranty obligations or leases to which the Issuer or a Restricted Subsidiary is a party, or to secure public or statutory obligations of the Issuer or a Restricted Subsidiary or deposits of cash or Cash Equivalents to secure surety, judgment, performance or appeal bonds (or other similar bonds, instruments or obligations) to which the Issuer or a Restricted Subsidiary is a party, or deposits as security for contested taxes or import or customs duties or for the payment of rent, or other obligations of like nature, in each case Incurred in the ordinary course of business;
- (2) Liens imposed by law;
- (3) Liens for taxes, assessments or other governmental charges not yet due or payable;
- (4) Liens in favor of issuers of surety or performance bonds or letters of credit or bankers’ acceptances issued pursuant to the request of and for the account of the Issuer or a Restricted Subsidiary in the ordinary course of its business; *provided*, however, that such letters of credit do not constitute Indebtedness;
- (5) judgment Liens not giving rise to an Event of Default so long as any appropriate legal proceedings which may have been duly initiated for the review of such judgment have not been finally terminated or the period within which such proceedings may be initiated has not expired;
- (6) Liens arising solely by virtue of banks’ standard business terms and conditions;
- (7) Liens existing on the Issue Date (other than in respect of the Notes and the Note Guarantees);
- (8) Liens on property or shares of stock of a Person at the time such Person becomes a Restricted Subsidiary; *provided*, however, that such Liens are not created, Incurred or assumed in connection with, or in contemplation of, such other Person becoming a Restricted Subsidiary; *provided* further, however, that any such Lien may not extend to any other property owned by the Issuer or any Restricted Subsidiary;
- (9) Liens on property at the time the Issuer or a Restricted Subsidiary acquired the property, including any acquisition by means of a merger or consolidation with or into the Issuer or any Restricted Subsidiary; *provided*, however, that such Liens are not created, Incurred or assumed in connection with, or in contemplation of, such acquisition; *provided* further, however, that such Liens may not extend to any other property owned by the Issuer or any Restricted Subsidiary;
- (10) Liens securing Indebtedness or other obligations of the Issuer or any Restricted Subsidiary under a cash pool or similar arrangement owed to a Restricted Subsidiary;
- (11) Liens arising in connection with conditional sale or retention of title arrangements (*Eigentumsvorbehalt*) or similar arrangements entered into in the ordinary course of business;
- (12) Liens securing Refinancing Indebtedness Incurred to refinance Indebtedness that was previously so secured; *provided*, however, that any such Lien is limited to all or part of the same security

package that secured the Indebtedness being refinanced and shall rank the same priority as the Indebtedness being refinanced;

- (13) (a) Liens to secure Indebtedness permitted by clause (i) of the second paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*” in an aggregate principal amount not to exceed €100 million and (b) Liens to secure Indebtedness permitted by clause (ix) of the second paragraph of the covenant set forth under “—*Covenants—Limitation on Indebtedness*”; *provided* that, in relation to the foregoing sub-clause (b), any such Lien shall be limited to the asset financed with such Indebtedness;
- (14) Liens securing any Indebtedness of a Restricted Subsidiary owed to the Issuer or another Restricted Subsidiary, *provided* that such Liens are subordinated to the Liens securing the Notes;
- (15) Liens on Securitization Assets and related assets incurred in connection with any Qualified Securitization Financing;
- (16) Liens in favor of the Issuer or any Guarantor or, as long as such Lien does not secure any obligation of the Issuer or a Guarantor, any Restricted Subsidiary that is not a Guarantor;
- (17) leases (including operating leases), licenses, subleases and sublicenses of assets (including real property and intellectual property rights), in each case entered into in the ordinary course of business;
- (18) Liens securing or arising by reason of any netting or set-off arrangement entered into in the ordinary course of banking or other trading activities;
- (19) Liens created for the benefit of (or to secure) the Notes (or any Note Guarantee);
- (20) Liens on Capital Stock or other securities or assets of any Unrestricted Subsidiary that secure Indebtedness of such Unrestricted Subsidiary;
- (21) limited recourse Liens in respect of the ownership interests in, or assets owned by, any joint ventures which are not Restricted Subsidiaries securing obligations of such joint ventures;
- (22) minor survey exceptions, minor encumbrances, easements or reservations of, or rights of others for, licenses, rights-of-way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real property or Liens incidental to the conduct of the business of such Person or to the ownership of its properties which were not Incurred in connection with Indebtedness and which do not in the aggregate materially adversely affect the value of said properties or materially impair their use in the operation of the business of such Person;
- (23) Liens securing Indebtedness Incurred to finance the construction, installation, purchase or lease of, or repairs, improvements or additions to, property, plant or equipment of such Person; *provided*, however, that (a) the Lien may not extend to any other property owned by such Person or any of its Restricted Subsidiaries at the time the Lien is Incurred (other than assets and property affixed or appurtenant thereto); (b) the aggregate principal amount of such Indebtedness is Incurred pursuant to the first paragraph of the covenant “—*Covenants—Limitation on Indebtedness*”; and (c) the Indebtedness (other than any interest thereon) secured by the Lien may not be Incurred more than 180 days after the later of the acquisition, completion of construction, installation, repair, improvement, addition or commencement of full operation of the property subject to the Lien;
- (24) (a) mortgages, liens, security interests, restrictions, encumbrances or any other matters of record that have been placed by any government, statutory or regulatory authority, developer, landlord or other third party on property over which the Issuer or any Restricted Subsidiary has easement rights or on any leased property and subordination or similar arrangements relating thereto; and (b) any condemnation or eminent domain proceedings affecting any real property;
- (25) Liens on property or assets under construction (and related rights) in favor of a contractor or developer or arising from progress or partial payments by a third party relating to such property or assets;
- (26) Liens on specific items of inventory or other goods and proceeds of any Person securing such Person’s obligations in respect of bankers’ acceptances issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;

- (27) Liens pursuant to (a) Section 8a of the German Partial Retirement Act (*Altersteilzeitgesetz*); (b) Section 7d of the German Social Law Act No. 4 (*Sozialgesetzbuch IV*); or (c) Section 1136 (alone or in conjunction with Section 1192(1)) of the German Civil Code (*Bürgerliches Gesetzbuch*);
- (28) Liens created or subsisting by virtue of hereditary building rights (*Erbbaurechte*);
- (29) Liens granted or created for the benefit of the related Packaging Park Customer on assets or property of the Issuer or a Restricted Subsidiary in connection with a Packaging Park Project; *provided* that any such Lien must be reasonably required for the realization of the relevant Packaging Park Project, as determined in good faith by the Board of Directors of the Issuer;
- (30) Liens granted or created for the benefit of a related Packaging Park Financing Party on assets or property of the Issuer or a Restricted Subsidiary in connection with a Packaging Park Project; *provided* that (x) any such Lien must be reasonably required for the realization of the relevant Packaging Park Project, as determined in good faith by the Board of Directors of the Issuer, (y) the aggregate principal amount of any related Indebtedness secured by such Lien is Incurred under the first paragraph or clause (x) of the second paragraph of the covenant under “—Covenants—Limitation on Indebtedness” or Refinancing Indebtedness in respect thereof (pursuant to clause (iii)) and (z) any such Lien may not extend to any assets or property of the Issuer or any Restricted Subsidiary other than assets or property to which the relevant Packaging Park Project relates;
- (31) Liens granted or created by a Packaging Park Customer or Packaging Park Financing Party on Liens granted or created pursuant to clauses (29) or (30);
- (32) Liens on Escrowed Proceeds for the benefit of the related holders of debt securities or other Indebtedness (or the underwriters or arrangers thereof) or on cash set aside at the time of the Incurrence of any Indebtedness or government securities purchased with such cash, in either case to the extent such cash or government securities prefund the payment of interest on such Indebtedness and are held in escrow accounts or similar arrangement to be applied for such purpose;
- (33) Liens on assets of the Issuer and its Restricted Subsidiaries with respect to obligations not to exceed €30 million at any time; and
- (34) Liens granted in connection with any customary cash management, cash pooling or netting or setting-off arrangements (including, for the avoidance of doubt, any Cash Management Liabilities) entered into in the ordinary course of business (as determined in good faith by the Issuer’s Board of Directors).

“**Person**” means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company, government or any agency or political subdivision thereof or any other entity.

“**PIK Issuer**” means JH-Holding Finance SA, including any potential successor or assignor, in which case “PIK Issuer” shall mean such successor or assign.

“**PIK Notes**” means the payment-in-kind toggle notes issued by the PIK Issuer on April 30, 2015.

“**PIK Notes Refinancing Event**” means the full or partial redemption, repurchase, cancellation, defeasance or other discharge of the PIK Notes not exceeding the aggregate principal amount of PIK Notes outstanding as of the Issue Date less any principal amount of PIK Notes redeemed, repurchased, cancelled, defeased or otherwise discharged following the Issue Date and prior to the date of a PIK Notes Refinancing Event.

“**PIK Proceeds Loan**” means the loan granted by the PIK Issuer to the Parent under a proceeds loan agreement entered into on April 29, 2015 in connection with the issuance of the PIK Notes.

“**Priority Hedging Obligations**” means the “Priority Hedging Liabilities” designated under the Intercreditor Agreement from time to time, as such Intercreditor Agreement may be replaced, amended and/or restated in accordance with the “—Covenants—Amendment and Restatement of Intercreditor Agreement; Additional Intercreditor Agreements” covenant.

“Public Market” means any time after:

- (1) an Equity Offering has been consummated; and
- (2) at least 20% of the total issued and outstanding ordinary shares or common equity of the Issuer has been distributed to investors other than the Permitted Holders or any other direct or indirect shareholders of the Issuer as of the Issue Date.

“Purchase Money Obligations” means any Indebtedness Incurred to finance or refinance the acquisition, leasing, design, installation, construction or improvement of property (real or personal) or assets (including Capital Stock), and whether acquired through the direct acquisition of such property or assets or the acquisition of the Capital Stock of any Person owning such property or assets or otherwise.

“Qualified Securitization Financing” means any financing pursuant to which the Issuer or any of its Restricted Subsidiaries may sell, convey or otherwise transfer to any other Person or grant a security interest in, any accounts receivable (and related assets) in any aggregate principal amount equivalent to the Fair Market Value of such accounts receivable (and related assets) of the Issuer or any of its Restricted Subsidiaries; *provided* that (a) the covenants, events of default and other provisions applicable to such financing shall be on market terms (as determined in good faith by the Issuer’s Board of Directors or an Officer) at the time such financing is entered into, (b) the interest rate applicable to such financing shall be a market interest rate (as determined in good faith by the Issuer’s Board of Directors or an Officer) at the time such financing is entered into and (c) such financing shall be non-recourse to the Issuer or any of its Restricted Subsidiaries except to a limited extent customary for such transactions.

“Rating Agencies” means Moody’s Investors Service Inc. and Standard & Poor’s Ratings Group, Inc.

“Rating Triggering Period” means any period during which the Notes are rated at least (a) Ba1 by Moody’s Investors Service Inc. or (b) BB+ by Standard & Poor’s Ratings Group, Inc.

“Refinancing Indebtedness” means Indebtedness that refinances any Indebtedness Incurred or existing as permitted under and in compliance with the Conditions of Issue; *provided*, however, that:

- (1) the Refinancing Indebtedness has a Stated Maturity no earlier than the Stated Maturity of the Indebtedness being refinanced;
- (2) the Refinancing Indebtedness has an Average Life at the time such Refinancing Indebtedness is Incurred that is equal to or greater than the Average Life of the Indebtedness being refinanced;
- (3) such Refinancing Indebtedness has an aggregate principal amount (or, if issued with original issue discount, an aggregate issue price) that is equal to or less than the aggregate principal amount (or, if issued with original issue discount, the aggregate accreted value) then outstanding of the Indebtedness being refinanced (plus all accrued interest and the amount of all fees and expenses, including any premiums, incurred in connection with such refinancing);
- (4) if the Indebtedness being refinanced is subordinated in right of payment to the Notes or any Note Guarantee, such Refinancing Indebtedness is subordinated in right of payment to the Notes or such Note Guarantee, as the case may be, on terms at least as favorable to the Holders as those contained in the documentation governing the Indebtedness being refinanced;
- (5) if the Indebtedness being refinanced is Indebtedness of the Issuer or a Guarantor, the Refinancing Indebtedness may not be Indebtedness of or Guaranteed by a Restricted Subsidiary that is not a Guarantor; and
- (6) such Refinancing Indebtedness is incurred either by the Issuer or a Guarantor (if the Issuer or a Guarantor was the obligor of the Indebtedness being refinanced, replaced or discharged) or by the Restricted Subsidiary that was the obligor of the Indebtedness being refinanced, replaced or discharged and is Guaranteed only by Persons who were obligors or Guarantors of the Indebtedness being refinanced, replaced or discharged.

“Related Business” means any of the businesses engaged in by the Issuer and its Subsidiaries on the Issue Date, and any services, activities or businesses incidental or directly related or similar thereto (including, without limitation, the supply of energy to the Issuer or any Restricted Subsidiary and the supply of raw materials in connection with any of the businesses engaged in by the Issuer and its Subsidiaries on the Issue Date), or any line of business or business activity that is a reasonable extension, development, application or expansion thereof or ancillary thereto (including by way of geography or product or service line).

“Related Taxes” means:

- (1) any Taxes, including sales, use, transfer, rental, ad valorem, value added, stamp, property, consumption, franchise, license, capital, registration, business, customs, net worth, gross receipts, excise, occupancy, intangibles or similar Taxes (other than (x) Taxes measured by income and (y) withholding imposed on payments made by any Holding Company, in each case save for sub-clause (e) below), required to be paid (provided such Taxes are in fact paid) by any Holding Company by virtue of its:
 - (a) being organized or having Capital Stock outstanding (but not by virtue of owning stock or other equity interests of any corporation or other entity other than, directly or indirectly, the Issuer or any of its Subsidiaries);
 - (b) issuing or holding Subordinated Shareholder Debt;
 - (c) being a holding company, directly or indirectly, of the Issuer or any of its Subsidiaries;
 - (d) receiving dividends from or other distributions in respect of the Capital Stock of, directly or indirectly, the Issuer or any of its Subsidiaries; or
 - (e) having made any payment in respect to any of the items for which the Issuer is permitted to make payments to any Person pursuant to “—*Covenants—Limitation on Restricted Payments*” (including, without limitation, Taxes to be paid by the Issuer in connection with any Restricted PIK Interest Payments or Restricted Payments for the sole purpose of financing a PIK Notes Refinancing Event but only to the extent such Taxes cannot be avoided by filing respective applications including, but not limited to, an application pursuant to Section 44a(5) of the German Income Tax Code (*Einkommensteuergesetz*)); or
- (2) if and for so long as the Issuer is a member of a group filing a consolidated or combined tax return with any Holding Company, any Taxes measured by income for which such Holding Company is liable up to an amount not to exceed with respect to such Taxes the amount of any such Taxes that the Issuer and its Subsidiaries would have been required to pay on a separate company basis or on a consolidated basis if the Issuer and its Subsidiaries had paid tax on a consolidated, combined, group, affiliated or unitary basis on behalf of an affiliated group consisting only of the Issuer and its Subsidiaries.

“Restricted Investment” means any Investment other than a Permitted Investment.

“Restricted Payment” means:

- (1) the declaration or payment of any dividend or any distribution (whether made in cash, securities or other property) by the Issuer or any Restricted Subsidiary on or in respect of its Capital Stock (including any payment in connection with any merger or consolidation involving the Issuer or any of its Restricted Subsidiaries) other than:
 - (a) dividends or distributions payable solely in Capital Stock of the Issuer (other than Disqualified Stock) or in options, warrants or other rights to purchase such Capital Stock of the Issuer and dividends or distributions payable solely in Subordinated Shareholder Debt; and
 - (b) dividends or distributions payable to the Issuer or a Restricted Subsidiary and, if the Restricted Subsidiary paying such dividends or distributions is not a Wholly Owned Subsidiary, to its other holders of common Capital Stock on a *pro rata* basis;
- (2) the purchase, redemption or other acquisition for value of any Capital Stock (including any payment in connection with any merger or consolidation involving the Issuer or any of its Restricted Subsidiaries) of the Issuer or any direct or indirect parent of the Issuer held by Persons other than the Issuer or a Restricted Subsidiary (other than in exchange for Capital Stock of the Issuer (other than Disqualified Stock));
- (3) the purchase, repurchase, redemption, defeasance or other acquisition for value, prior to scheduled maturity or scheduled repayment of any Indebtedness of the Issuer or any Guarantor that is contractually subordinated to the Notes or to any Note Guarantee (excluding any intercompany Indebtedness between or among the Issuer and any Guarantor), other than the purchase, repurchase, redemption, defeasance or other acquisition of any Indebtedness of the Issuer or any Guarantor that is contractually subordinated to the Notes or to any Note Guarantee

purchased in anticipation of satisfying a sinking fund obligation, principal instalment or final maturity, in each case due within one year of the date of such purchase, repurchase, redemption, defeasance, other acquisition or scheduled repayment;

(4) any payment on or with respect to, or purchase, redeem, defease or otherwise acquire or retire for value any Subordinated Shareholder Debt; or

(5) the making of any Restricted Investment in any Person.

The amount of all Restricted Payments (other than cash) shall be the Fair Market Value on the date of such Restricted Payment of the asset(s) or securities proposed to be paid, transferred or issued by the Issuer or such Restricted Subsidiary, as the case may be, pursuant to such Restricted Payment. The determination of the Fair Market Value shall be determined conclusively by the Board of Directors of the Issuer acting in good faith.

“Restricted PIK Interest Payment” means any Restricted Payment by the Issuer to the Parent solely for purposes of the Parent making interest payments under and in accordance with the terms of the PIK Proceeds Loan to the PIK Issuer, reasonably required by the PIK Issuer for making cash interest payments under the PIK Notes.

“Restricted Subsidiary” means any Subsidiary of the Issuer other than an Unrestricted Subsidiary.

“Securities Act” means the U.S. Securities Act, as amended and the rules and regulation of the U.S. Securities and Exchange Commission promulgated thereunder.

“Securitization Assets” means any accounts receivable subject to a Qualified Securitization Financing.

“Securitization Fees” means distributions or payments made directly or by means of discounts with respect to any participation interest issued or sold in connection with, and other fees paid to a Person that is not the Issuer or any of its Restricted Subsidiaries in connection with any Qualified Securitization Financing.

“Securitization Repurchase Obligation” means any obligation of a seller of Securitization Assets in a Qualified Securitization Financing to repurchase Securitization Assets arising as a result of a breach of a representation, warranty or covenant or otherwise, including as a result of a receivable or portion thereof becoming subject to any asserted defense, dispute, off-set or counterclaim of any kind as a result of any action taken by, any failure to take action by or any other event relating to the seller.

“Security Agent” means Wilmington Trust (London) Limited, as security agent pursuant to the Intercreditor Agreement or any successor or replacement security agent acting in such capacity.

“Security Documents” means any agreement or document that provides for a Lien over any Collateral for the benefit of the Holders in each case as amended or supplemented from time to time.

“Senior Secured EUR Facility” means the €38.5 million senior secured EUR facility agreement dated December 21, 2017 entered into, among others, IKB Deutsche Industriebank AG, as original lender and agent, the Issuer, as original borrower, the Issuer and certain of its subsidiaries, as original guarantors, as the same may be amended, extended, restated, replaced, waived or otherwise modified from time to time.

“Senior Secured EUR Facility Lenders” means the lenders, from time to time, under the Senior Secured EUR Facility.

“Senior Secured Facilities” means collectively the Senior Secured EUR Facility, the Senior Secured GBP Facility and the Senior Secured PLN Facilities.

“Senior Secured Facility Lenders” means collectively the Senior Secured EUR Facility Lenders, the Senior Secured GBP Facility Lenders and the Senior Secured PLN Facility Lenders.

“Senior Secured GBP Facility” means the GBP70 million senior secured GBP facility agreement dated December 21, 2017 entered into, among others, Goldman Sachs Bank USA, as original lender, Goldman Sachs Lending Partners LLC, as agent, the Progroup Board Ltd., as original borrower, the Issuer and certain of its subsidiaries, as original guarantors, and Wilmington Trust (London) Limited, as security agent, as the same may be amended, extended, restated, replaced, waived or otherwise modified from time to time.

“Senior Secured GBP Facility Lenders” means the lenders, from time to time, under the Senior Secured GBP Facility.

“Senior Secured PLN Facilities” means collectively (i) the PLN 107 million senior secured PLN facility agreement dated December 1, 2015, as amended on December 21, 2017, and (ii) the PLN 107 million senior secured PLN facility agreement dated May 31, 2016, as amended on December 21, 2017, in each case entered into, among others, Commerzbank Aktiengesellschaft, as arranger, original lender and agent, Progroup Board sp. z o.o., as original borrower, the Issuer and certain of its subsidiaries, as original guarantors, and Wilmington Trust (London) Limited, as security agent, in each case as the same may be further amended, extended, restated, replaced, waived or otherwise modified from time to time.

“Senior Secured PLN Facility Lenders” means the lenders, from time to time, under the relevant Senior Secured PLN Facilities.

“Significant Subsidiary” means any Restricted Subsidiary which has earnings before interest, tax, depreciation and amortisation (calculated on the same basis as Consolidated EBITDA) representing 10% or more of Consolidated EBITDA or which has total assets or sales representing 10% or more of the total assets or sales of the Group (respectively), in each case, after elimination of any effects of any intra-Group transactions, and determined by reference to the most recent audited consolidated financial statements of the Group and the most recent audited (if available) or unaudited (if audited statements are not available) unconsolidated financial statements of such Restricted Subsidiary.

“Stated Maturity” means, with respect to any security, the date specified in such security as the fixed date on which the payment of principal of such security is due and payable, including pursuant to any mandatory redemption provision, but shall not include any contingent obligations to repay, redeem or repurchase any such principal prior to the date originally scheduled for the payment thereof.

“Subordinated Indebtedness” means, with respect to any person, any Indebtedness (whether outstanding on the Issue Date or thereafter Incurred) which is expressly subordinated in right of payment to the Notes pursuant to a written agreement.

“Subordinated Shareholder Debt” means any Indebtedness provided to the Issuer held by any Holding Company or any Permitted Holder in exchange for or pursuant to any security, instrument or agreement other than Capital Stock, together with any such security, instrument or agreement and any other security or instrument other than Capital Stock issued in payment of any obligation under any Subordinated Shareholder Debt; *provided* that such Subordinated Shareholder Debt:

- (1) does not (including upon the happening of any event) mature or require any amortization or other payment of principal prior to the first anniversary of the maturity of the Notes (other than through conversion or exchange of any such security or instrument for Capital Stock of the Issuer (other than Disqualified Stock) or for any other security or instrument meeting the requirements of this definition);
- (2) does not (including upon the happening of any event) require the payment of cash interest prior to the first anniversary of the final maturity of the Notes;
- (3) does not (including upon the happening of any event) provide for the acceleration of its maturity nor confers any right (including upon the happening of any event) to declare a default or event of default or take any enforcement action, in each case, prior to the first anniversary of the final maturity of the Notes;
- (4) is not secured by a Lien on any assets of the Issuer or a Restricted Subsidiary and is not Guaranteed by any Subsidiary of the Issuer;
- (5) is subordinated in right of payment to the prior payment in full in cash of the Notes in the event of any default, bankruptcy, reorganization, liquidation, winding up or other disposition of assets of the Issuer;
- (6) does not (including upon the happening of any event) restrict the payment of amounts due in respect of the Notes or compliance by the Issuer with its obligations under the Notes and the Agency Agreement;
- (7) does not (including upon the happening of an event) constitute Voting Stock; and
- (8) is not (including upon the happening of any event) mandatorily convertible or exchangeable, or convertible or exchangeable at the option of the holder, in whole or in part, prior to the date on which the Notes mature other than into or for Capital Stock (other than Disqualified Stock) of the Issuer;

provided, however, that any event or circumstance that results in such Indebtedness ceasing to qualify as a Subordinated Shareholder Debt, such Indebtedness shall constitute an incurrence of such Indebtedness by the Issuer which incurrence will only be permitted to the extent permitted under the provision set forth under “—Covenants—Limitation on Indebtedness”, and any and all Restricted Payments made through the use of the net proceeds from the Incurrence of such Indebtedness since the date of the original issuance of such Subordinated Shareholder Debt shall constitute new Restricted Payments that are deemed to have been made after the date of the original issuance of such Subordinated Shareholder Debt.

“**Subsidiary**” means, with respect to any specified Person:

- (1) any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency and after giving effect to any voting agreement or stockholders’ agreement that effectively transfers voting power) to vote in the election or appointment of directors or managers of the corporation, association or other business entity is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and
- (2) any partnership or limited liability company of which (a) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general and limited partnership interests, as applicable, are owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, whether in the form of membership, general, special or limited partnership interests or otherwise, and (b) such Person or any Subsidiary of such Person is a controlling general partner or otherwise controls such entity.

“**Super Senior Revolving Credit Facility**” means the €50 million super senior revolving credit facility agreement entered into on April 23, 2015, as amended on December 1, 2015 and December 21, 2017, respectively, between, among others, Commerzbank Aktiengesellschaft, Deutsche Bank AG, London Branch and HSBC Trinkhaus & Burkhardt AG, as arrangers and original lenders, the Issuer and certain of its Restricted Subsidiaries as original borrowers, the Issuer and certain of its Restricted Subsidiaries as original guarantors, Deutsche Bank Luxembourg S.A., as agent, and Wilmington Trust (London) Limited, as security agent, as the same may be further amended, extended, restated, replaced, waived or otherwise modified from time to time.

“**Super Senior Revolving Credit Facility Lenders**” means the “RCF Lenders” as defined under the Intercreditor Agreement.

“**Taxes**” means all present and future taxes, levies, imposts, deductions, charges, duties and withholdings and any charges of a similar nature (including, without limitation, interest, penalties and other liabilities with respect thereto) that are imposed by any government or other taxing authority.

“**Unrestricted Subsidiary**” means:

- (1) any Subsidiary of the Issuer that at the time of determination shall be designated an Unrestricted Subsidiary by the Board of Directors of the Issuer in the manner provided for under “—Covenants—Restricted and Unrestricted Subsidiaries”; and
- (2) any Subsidiary of an Unrestricted Subsidiary.

“**Voting Stock**” of a corporation or company means all classes of Capital Stock of such corporation or company then outstanding and normally entitled to vote in the election of directors.

“**Wholly Owned Subsidiary**” means a Restricted Subsidiary, all of the Capital Stock of which (other than directors’ qualifying shares or shares required by any applicable law or regulation to be held by a Person other than the Issuer or another Wholly Owned Subsidiary) is owned by the Issuer or another Wholly Owned Subsidiary.

CERTAIN INSOLVENCY LAW CONSIDERATIONS AND LIMITATIONS ON THE VALIDITY AND ENFORCEABILITY OF THE GUARANTEES AND SECURITY INTERESTS

The following is a summary of certain insolvency law considerations regarding the European Union, Germany, the Czech Republic, Poland, the United Kingdom and France. The descriptions below are only a summary and do not purport to be complete or to discuss all insolvency law considerations that may affect the enforceability of the obligations of the Issuer or any Guarantor. See “*Risk Factors—Risks Related to the Notes*”.

EUROPEAN UNION

On June 5, 2015, Regulation (EU) 2015/848 of the European Parliament and of the Council of May 20, 2015 on insolvency proceedings (the “**EU Insolvency Regulation**”) was published in the Official Gazette of the European Union.

Main insolvency proceedings

Pursuant to Article 3(1) of the EU Insolvency Regulation, the court which shall have jurisdiction to open insolvency proceedings in relation to a company is the court of the member state of the European Union (the “**Member State**”) (other than Denmark) within which the center of a debtor’s main interests is situated. The “center of main interests” is defined as “the place where the debtor conducts the administration of its interests on a regular basis and which is ascertainable by third parties”. Pursuant to Article 3(1) of the EU Insolvency Regulation, the center of main interests of a company or legal person is presumed to be located in the Member State of the registered office in the absence of proof to the contrary. That presumption shall only apply if the registered office has not been moved to another Member State within a three-month period prior to the request for the opening of insolvency proceedings. Specifically, it should be possible to rebut this presumption where the company’s central administration is located in a Member State other than that of its registered office, and where a comprehensive assessment of all the relevant factors establishes, in a manner that is ascertainable by third parties, that the company’s actual center of management and supervision and of the management of its interests is located in that other Member State. In this regard, special consideration should be given to creditors and their perception as to where a debtor conducts the administration of its interests. In the event of a shift in the center of main interests, this may require informing the creditors of the new location from which the debtor is carrying out its activities in due course (e.g. by drawing attention to the change of address in commercial correspondence or otherwise making the new location public through other appropriate means).

If the “center of main interests” of a company at the time an insolvency application is made, is located in a Member State (other than Denmark), the main insolvency proceedings in respect of the company under the EU Insolvency Regulation would be commenced in such jurisdiction and, accordingly, a court in such jurisdiction would be entitled to commence the types of insolvency proceedings referred to in Annex A to the EU Insolvency Regulation.

Furthermore, pursuant to Article 6 of the EU Insolvency Regulation, the courts of the Member State within the territory of which insolvency proceedings have been opened in accordance with Article 3 shall have jurisdiction for any action that derives directly from the insolvency proceedings and is closely linked with them, such as avoidance actions.

Secondary insolvency proceedings

Insolvency proceedings opened in one Member State under the EU Insolvency Regulation are to be recognized in the other Member States (other than Denmark), although secondary proceedings may be opened in other Member States. If the “center of main interests” of a debtor is in one Member State (other than Denmark), under Article 3(2) of the EU Insolvency Regulation, the courts of another Member State (other than Denmark) have jurisdiction to open “secondary” or “territorial” insolvency proceedings only in the event that such debtor has an “establishment” in the territory of such other Member State. Secondary proceedings may be any insolvency proceeding listed in Annex A of the EU Insolvency Regulation and for the avoidance of doubt, are not limited to winding up proceedings. Territorial proceedings are, in effect, secondary proceedings which are commenced prior to the opening of main insolvency proceedings and which will usually convert to secondary proceedings on the opening of the main proceedings. “Establishment” is defined as any place of operations where a debtor carries out or has carried out in the three-month period prior to the request to open main insolvency proceedings a

non-transitory economic activity with human means and assets. The effects of those territorial insolvency proceedings are restricted to the assets of the debtor situated in the territory of such other Member State.

Pursuant to Article 3(4) of the EU Insolvency Regulation, where main proceedings in the Member State in which the company has its center of main interests have not yet been opened, territorial insolvency proceedings can only be opened in another Member State where the company has an establishment and either: (a) insolvency proceedings cannot be opened in the Member State in which the company's center of main interests is situated under that Member State's law; or (b) the territorial insolvency proceedings are opened at the request of a creditor whose claim arises from or in connection with the operation of such establishment or a public authority, which has the right to request such opening under the respective Member State's law, requests the opening of insolvency proceedings. Irrespective of whether the insolvency proceedings are main or secondary insolvency proceedings, such proceedings will, subject to certain exemptions, be governed by the *lex fori concursus*; that is, the local insolvency law of the court that has assumed jurisdiction for the respective main, territorial or secondary insolvency proceedings, as the case may be, of the company.

Pursuant to Article 21 of the EU Insolvency Regulation, the insolvency officeholder appointed by the court in the Member State which has jurisdiction to commence main proceedings may exercise the powers conferred on him by the law of that Member State in another Member State (other than Denmark) (such as to remove assets of the company from that other Member State). These powers are subject to certain limitations (e.g. the powers are available provided that so long as no insolvency proceedings have been opened in that other Member State nor any preservation measure has been taken to the contrary further to a request to open insolvency proceedings in that other Member State where the company has assets).

However, under Article 36 of the EU Insolvency Regulation, the insolvency practitioner in the main insolvency proceedings may prevent the opening of secondary insolvency proceedings in another Member State by giving a unilateral undertaking in respect of the assets located in the Member State in which secondary insolvency proceedings could be opened. For this purpose, the insolvency practitioner must undertake to comply with the distribution and priority rights under the relevant national law from which the local creditors would benefit if the insolvency proceedings were opened in the Member State where the assets are located. Such undertaking must be made in writing and is subject to approval by a qualified majority of known local creditors, determined in accordance with applicable local laws. If approved, the undertaking is binding on the insolvency estate and if a court is requested to open secondary insolvency proceedings, it should, at the request of the insolvency practitioner in the main insolvency proceedings, refuse to open such proceeding if it is satisfied that the undertaking adequately protects the general interests of local creditors.

Additionally, under Article 38 of the EU Insolvency Regulation, where a temporary stay of individual enforcement proceedings has been granted in order to allow for negotiations between a company and its creditors, the court, at the request of the insolvency practitioner in the main insolvency proceedings, may stay the opening of secondary insolvency proceedings for a period not exceeding three months, provided that suitable measures are in place to protect the interests of local creditors.

Under Article 46 of the EU Insolvency Regulation, the court which opened the secondary insolvency proceedings will also stay the process of realization of assets in whole or in part upon receipt of a request from the insolvency practitioner in the main insolvency proceedings, for a renewable period of up to three months, unless such a request is manifestly of no interest to the creditors in the main insolvency proceedings. Such stay may be continued or renewed for similar periods. Where the court stays the process of realization of the assets, the court may require the insolvency practitioner in the main insolvency proceedings to take any suitable measure to guarantee the interests of the creditors in the secondary insolvency proceedings and of individual classes of creditors.

Pursuant to Article 4 of the EU Insolvency Regulation, a court requested to open insolvency proceedings will be required to examine whether it has jurisdiction pursuant to Article 3; such decision may be challenged by the debtor or any creditor on grounds of international jurisdiction.

Insolvency proceedings involving members of a group of companies

The EU Insolvency Regulation provides for a cooperation and communication mechanism in the event that insolvency proceedings concerning two or more members of a group of companies are opened. Insolvency practitioners appointed in proceedings concerning a member of the group shall cooperate with any insolvency practitioner appointed in proceedings concerning another member of the group to the

extent that such cooperation is appropriate. Similarly, the court which has opened proceedings shall also cooperate with any other court before which a request is made to open proceedings concerning another member of the group to the extent that cooperation is appropriate to facilitate the effective administration of the proceedings, is not incompatible with the rules applicable to them and does not entail any conflict of interest. In this respect, the courts may, where appropriate, appoint a third party, provided that this is not incompatible with the rules applicable to them.

GERMANY

Insolvency

The Issuer and certain Guarantors are organized under the laws of Germany, have their registered offices in Germany and, except for shareholding interests in certain subsidiaries, substantially all of their assets are located in Germany. Consequently, any insolvency proceedings with regard to the Issuer and these certain Guarantors are likely to be initiated in Germany and, if the Issuer and the Guarantors, respectively, were held to have their center of main interests within the territory of Germany pursuant to the EU Insolvency Regulation (see “—European Union”) at the time the application for the opening of insolvency proceedings (*Insolvenzeröffnungsantrag*) is filed, German insolvency law would most likely govern such proceedings. The insolvency laws of Germany and, in particular, the provisions of the German Insolvency Code (*Insolvenzordnung*) may not be as favorable to creditors as the insolvency laws of other jurisdictions, including, *inter alia*, in respect of priority of creditors’ claims, the ability to obtain post-petition interest and the duration of the insolvency proceedings, and hence may limit the ability of creditors to recover payments due on the Notes, as applicable, to an extent exceeding the limitations arising under other insolvency laws.

The following is a brief description of certain aspects of the insolvency laws of Germany.

Under German insolvency law, there is no group insolvency concept, which generally means that, despite the economic ties between various entities within one group of companies, there will be one separate insolvency proceeding for each of the entities if and to the extent there exists an insolvency reason on the part of the relevant entity. Each of these insolvency proceedings will be legally independent from all other insolvency proceedings (if any) within the group. In particular, there is no consolidation of assets and liabilities of a group of companies in the event of insolvency and no pooling of claims among the respective entities of a group. Recently, the German legislator adopted an act to facilitate the handling of group insolvencies (*Gesetz zur Erleichterung der Bewältigung von Konzerninsolvenzen*) which entered into force on April 21, 2018. However, this act mainly provides for coordination of and cooperation between insolvency proceedings of group companies. The act does not provide for a consolidation of the insolvency proceedings of the insolvent group companies, or a consolidation of the assets and liabilities of a group of companies or pooling of claims amongst the respective entities of a group, but rather stipulates four key amendments of the German Insolvency Code in order to facilitate an efficient administration of group insolvencies: (i) a single court may be competent for each group entity insolvency proceeding; (ii) the appointment of a single person as insolvency administrator for all group companies is facilitated; (iii) certain coordination obligations are imposed on insolvency courts, insolvency administrators and creditors’ committees; and (iv) certain parties may apply for “coordination proceedings” (*Koordinationsverfahren*) and the appointment of a “coordination insolvency administrator” (*Koordinationsverwalter*) with the ability to propose a “coordination plan” (*Koordinationsplan*).

Under German insolvency law, insolvency proceedings are not initiated by the competent insolvency court *ex officio*, but require that the debtor or a creditor files a petition for the opening of insolvency proceedings. Insolvency proceedings can be initiated either by the debtor or by a creditor in the event of over-indebtedness (*Überschuldung*) of the debtor or in the event that the debtor is unable to pay its debts as and when they fall due (*Zahlungsunfähigkeit*). According to the relevant provision of the German Insolvency Code (*Insolvenzordnung*), a debtor is over-indebted when its liabilities exceed the value of its assets (based on their liquidation values), unless a continuation of the debtor’s business as a going concern is predominantly likely (*überwiegend wahrscheinlich*) at least for the current and the subsequent fiscal year (*positive Fortführungsprognose*). As a guideline, the debtor is deemed illiquid if it is unable to pay 10% or more of its due and payable liabilities during the subsequent three weeks, unless it is virtually certain that the company can close the liquidity gap shortly thereafter (*demnächst*) and it can be deemed acceptable to the creditor to continue to wait for the payments owed by such debtor. If a stock corporation (*Aktiengesellschaft—AG*), a European law stock corporation based in Germany (*Societas Europaea—SE*) or a limited liability company (*Gesellschaft mit beschränkter Haftung—GmbH*) or any company not having an

individual as personally liable shareholder—such as the Issuer—becomes illiquid and/or over-indebted, the management of such company and, under certain circumstances, its shareholders are obliged to file for the opening of insolvency proceedings without undue delay, however, at the latest within three (3) weeks after the mandatory insolvency reason, *i.e.*, illiquidity and/or over-indebtedness, occurred. Non-compliance with these obligations exposes management to both severe damage claims as well as sanctions under criminal law. Once illiquidity or over-indebtedness occurred, any payments, including any payments under the Notes, are voidable. In addition, imminent illiquidity (*drohende Zahlungsunfähigkeit*) is a valid insolvency reason under German law which exists if the company currently is able to service its payments obligations, but will presumably not be able to continue to do so at some point in time within a certain prognosis period. However, only the debtor, but not the creditors, is entitled (but not obliged) to file for the opening of insolvency proceedings if the debtor is likely to not be able to pay its debts as and when they fall due.

The insolvency proceedings are administered by the competent insolvency court which monitors the due performance of the proceedings. Upon receipt of the insolvency petition, the insolvency court may take preliminary measures (*vorläufige Maßnahmen*) to secure the property of the debtor during the preliminary proceedings (*Insolvenzeröffnungsverfahren*). The insolvency court may prohibit or suspend any measures taken to enforce individual claims against the debtor's assets during these preliminary proceedings. In addition, the court will generally also appoint a preliminary insolvency administrator (*vorläufiger Insolvenzverwalter*), unless the debtor has petitioned for debtor-in-possession status (*Eigenverwaltung*)—an insolvency process in which the debtor's management generally remains in charge of administering the debtor's business affairs under the supervision of a custodian (*Sachwalter*)—provided that no circumstances are known which lead to the expectation that debtor-in-possession status will place the creditors at a disadvantage.

Depending on the size of the debtor's business operations, the insolvency court must or may appoint a preliminary creditors' committee (*vorläufiger Gläubigerausschuss*) to form a view on a petition for debtor-in-possession status, or on the profile of the (preliminary) insolvency administrator to be appointed or to suggest a particular individual to be appointed by the court. A preliminary creditors' committee (*vorläufiger Gläubigerausschuss*) must be set up if the debtor satisfies two of the following three requirements: a balance sheet total of at least €6,000,000 (after deducting an equity shortfall if the debtor is over-indebted), revenues of at least €12,000,000 in the twelve months prior to the last balance sheet date and/or fifty or more employees on an annual-average basis. The preliminary creditors' committee will be able to participate in certain important insolvency court decisions. For example, the preliminary creditors' committee will have the ability to influence the selection of a preliminary insolvency administrator (*vorläufiger Insolvenzverwalter*) or an insolvency administrator (*Insolvenzverwalter*), court orders authorizing debtor-in-possession proceedings (*Anordnung der Eigenverwaltung*) and appointment of a preliminary custodian (*vorläufiger Sachwalter*). In case the members of the preliminary creditors' committee unanimously agree on an individual, such suggestion is binding on the court (unless the suggested individual is not eligible; *i.e.*, not competent and/or not impartial). To ensure that the preliminary creditors' committee reflects the interests of all creditor constituencies, it should and usually does comprise a representative of the secured creditors, one for the large creditors and one for the small creditors as well as one for the employees. The duties of the preliminary insolvency administrator are, in particular, to safeguard and to preserve the debtor's assets (which may include the continuation of the business carried out by the debtor), to verify the existence of an insolvency reason and to assess whether the debtor's net assets will be sufficient to cover the costs of the insolvency proceedings.

The court orders the opening (*Eröffnungsbeschluss*) of formal insolvency proceedings (*eröffnetes Insolvenzverfahren*) if certain requirements are met, in particular if there are sufficient assets (*Insolvenzmasse*) to cover at least the costs of the insolvency proceedings. If the assets of the debtor are not expected to be sufficient, the insolvency court will only open formal insolvency proceedings if third parties (e.g., creditors) advance the costs themselves. In the absence of such advancement, the petition for the opening of insolvency proceedings will be dismissed for insufficiency of assets (*Abweisung mangels Masse*).

Upon the opening of formal insolvency proceedings, an insolvency administrator (usually, but not necessarily, the same person who acted as preliminary insolvency administrator) is appointed by the insolvency court unless a debtor-in-possession status (*Eigenverwaltung*) is ordered. In the absence of a debtor-in-possession status, the right to administer the debtor's business affairs and to dispose of the assets of the debtor passes to the insolvency administrator with the insolvency creditors (*Insolvenzgläubiger*) only being entitled to change the individual appointed as insolvency administrator at the occasion of the first creditors' assembly (*erste Gläubigerversammlung*) with such change requiring that (i) a simple majority of votes cast (by head count and amount of insolvency claims) has voted in favor of the proposed individual

becoming the new insolvency administrator and (ii) the proposed individual being eligible as officeholder, i.e. sufficiently qualified, business-experienced and impartial. The insolvency administrator may raise new financial indebtedness and incur other liabilities to continue the debtor's business. These new liabilities incurred by the insolvency administrator qualify as preferential claims against the estate (*Masseverbindlichkeiten*) which are preferred to any insolvency claim of an unsecured creditor (with the residual claim of a secured insolvency creditor remaining after realization of the available collateral (if any) also qualifying as unsecured insolvency claim).

From the perspective of the Holders of the Notes, among others, some important consequences of such opening of formal insolvency proceedings against the Issuer, any Guarantor or any of their relevant subsidiaries that are subject to the German insolvency regime would be the following:

- the right to administer and dispose of the assets of the Issuer, such Guarantor or any of their relevant subsidiaries would generally pass to the insolvency administrator (*Insolvenzverwalter*) as sole representative of the insolvency estate;
- if the court does not order debtor-in-possession status (*Eigenverwaltung*) with respect to the Issuer, such Guarantor or any of their relevant subsidiaries, disposals effected by the management of the Issuer, such Guarantor or such subsidiary, after the opening of formal insolvency proceedings, are null and void by operation of law;
- if, during the final month preceding the date of filing for insolvency proceedings or thereafter, a creditor in the insolvency proceedings has acquired through execution (e.g., attachment) a security interest in part of the Issuer's, such Guarantor's or any of their relevant subsidiaries' property that would normally form part of the insolvency estate, such security becomes null and void by operation of law upon the opening of formal insolvency proceedings; and
- claims against the Issuer, such Guarantor or any of their relevant subsidiaries may only be pursued in accordance with the rules set forth in the German Insolvency Code (*Insolvenzordnung*).

Under German insolvency law, termination rights, automatic termination events or "escape clauses" entitling one party to terminate an agreement, or resulting in an automatic termination of an agreement, upon the opening of insolvency proceedings in respect of the other party, the filing for insolvency or the occurrence of reasons justifying the opening of insolvency proceedings (*insolvenzbezogene Kündigungsrechte oder Lösungsklauseln*) may be invalid if they frustrate the election right of the insolvency administrator whether or not to perform the contract (*Wahlrecht des Insolvenzverwalters*) unless they reflect termination rights applicable under statutory law. This may also relate to agreements that are not governed by German law.

Any person that has a right for separation (*Aussonderung*) (i.e., the relevant asset of this person does not constitute part of the insolvency estate) does not participate in the insolvency proceedings; the claim for separation must be enforced in the course of ordinary court proceedings against the insolvency administrator.

All creditors, whether secured or unsecured (unless they have a right to separate an asset from the insolvency estate (*Aussonderungsrecht*)) as opposed to a preferential right (*Absonderungsrecht*), wishing to assert claims against the insolvent debtor need to participate in the insolvency proceedings. German insolvency proceedings are collective proceedings and creditors may generally no longer pursue their individual claims in the insolvency proceedings separately, but can instead only enforce them in compliance with the restrictions of the German Insolvency Code (*Insolvenzordnung*). Therefore, secured creditors are generally not entitled to enforce any security interest outside the insolvency proceedings. In the insolvency proceedings, however, secured creditors have certain preferential rights (*Absonderungsrechte*). Depending on the legal nature of the security interest entitlement to enforce such security is either vested with the secured creditor or the insolvency administrator. In this context, it should be noted that the insolvency administrator generally has the sole right to realize any moveable assets in his/the debtor's possession which are subject to preferential rights (e.g., liens over movable assets (*Mobiliarsicherungsrechte*) or security transfer of title (*Sicherungsübereignung*)) as well as to collect any claims that are subject to security assignment agreements (*Sicherungsabtretungen*).

Creditors secured by pledges over shares in subsidiaries of the debtor are entitled to preferential satisfaction with regard to the proceeds realized in an enforcement process which has to be effected by means of a public auction outside the insolvency process. However, in the absence of authoritative case law, it is uncertain whether the secured creditors are entitled to initiate the enforcement process in respect

of the pledged shares on their own or, as far as the pledged assets are part of any insolvency estate, whether the insolvency administrator has standing to realize the pledges on behalf of and for the benefit of the secured creditors. Even if the law vests the right of disposal regarding the relevant collateral in the insolvency administrator, the secured creditor retains the right of preferred satisfaction (*Absonderungsrecht*) with regard to the disposal proceeds. Consequently, the enforcement proceeds, less certain contributory charges for (i) assessing the value of the secured assets (*Feststellungskosten*) and (ii) realizing the secured assets (*Verwertungskosten*) which, in the aggregate, usually add up to 9% (or more in certain circumstances) of the gross enforcement proceeds plus VAT (if any), are disbursed to the creditor holding a security interest in the relevant collateral up to an amount equal to its secured claims. With the remaining unencumbered assets of the debtor the insolvency administrator has to satisfy the creditors of the insolvency estate (*Massegläubiger*) first (including the costs of the insolvency proceedings as well as any preferred liabilities incurred by the insolvency estate after the opening of formal insolvency proceedings). Thereafter, all other claims (insolvency claims—*Insolvenzforderungen*), in particular claims of unsecured creditors, will be satisfied on a pro rata basis if and to the extent there is value remaining in the insolvency estate (*Insolvenzmasse*) after the security interest and the preferential claims against the estate have been settled and paid in full.

The right of a creditor to preferred satisfaction (*Absonderungsrecht*) or to separation (*Aussonderungsrecht*) may not necessarily prevent the insolvency administrator from using a movable asset that is subject to this right. The insolvency administrator must, however, compensate the creditor for any loss of value resulting from such use.

Other than secured and unsecured creditors, German insolvency law provides for certain creditors to be subordinated by law (including, but not limited to, claims made by shareholders (unless privileged) of the relevant debtor for the return of funds or the payment of a consideration), while claims of a person who becomes a creditor of the insolvency estate only after the opening of insolvency proceedings generally rank senior to the claims of regular, unsecured creditors. Claims of subordinated creditors in the insolvency proceedings (*nachrangige Insolvenzgläubiger*) are satisfied only after the claims of other non-subordinated creditors (including the unsecured insolvency claims) have been fully satisfied. See also below under “Satisfaction of Subordinated Claims”.

It may take several years before an insolvency payment, if any, is distributed to unsecured creditors. While in ordinary insolvency proceedings, the value of the Issuer’s, any Guarantor’s or any of their relevant subsidiaries’ assets will be realized by a piecemeal sale or, as the case may be, by a bulk sale of the entity’s business as a going concern, a different approach aiming at the rehabilitation of such entities can be taken based on an insolvency plan (*Insolvenzplan*). Such plan can be submitted by the debtor or the insolvency administrator and requires, among other things and subject to certain exceptions, the consent of the Issuer, such Guarantor or any of their relevant subsidiaries and the consent of each class of creditors in accordance with specific majority rules and the approval of the insolvency court (while a group of dissenting creditors or the debtor can under certain circumstances be crammed down). If the debtor is a corporate entity, also the shares or, as the case may be, the membership rights in the debtor can be included in the insolvency plan, e.g., they can be transferred to third parties, including a transfer to creditors based on a debt-to-equity swap. Thus, an insolvency plan could under certain circumstances provide for provisions regarding the Notes, the guarantees or the collateral which are less favorable to the Holders of the Notes than the provisions of the German Insolvency Code, such as the release of the collateral, the release of obligations under the Notes or the contribution of the Notes in exchange for equity. Under certain conditions, such provisions could be adopted against the votes of the affected Holders of the Notes.

Moreover, if the debtor has filed a petition for the opening of insolvency proceedings based on an insolvency reason other than illiquidity (*i.e.*, imminent illiquidity or over-indebtedness), combined with a petition to initiate such process based on a debtor-in-possession status and can prove that a restructuring of its business is not obviously futile (*offensichtlich aussichtslos*), the court may grant a period of up to three months to utilize an insolvency plan for the debtor business (*Schutzschirm*). During this period, the creditors’ rights to enforce security may—upon application of the filing debtor—be suspended. Under these circumstances, the insolvency court has to appoint a custodian (*Sachwalter*) to supervise the process. The debtor is entitled to suggest an individual to be appointed as custodian with such suggestion being binding on the insolvency court unless the suggested person is obviously not eligible to become a custodian (*i.e.*, is obviously not competent or impartial).

Under the German Insolvency Code, the insolvency administrator (or in case of debtor-in-possession proceedings, the custodian) may void (*anfechten*) transactions, performances or other acts that are deemed detrimental to insolvency creditors and which were effected prior to the commencement of formal insolvency proceedings during applicable voidable periods. Generally, if transactions, performances or other acts are successfully voided by the insolvency administrator or custodian, as the case may be, any amounts or other benefits derived from such challenged transaction, performance or act will have to be returned to the insolvency estate. The administrator's or custodian's right to void transactions can, depending on the circumstances, extend to transactions having occurred up to ten years prior to the filing for the commencement of insolvency proceedings. In the event of insolvency proceedings with respect to the Issuer, any Guarantor or any of their relevant subsidiaries based on and governed by the insolvency laws of Germany, the payment of any amounts to the Holders of the Notes as well as the granting of Collateral for or providing credit support for the benefit of the Notes could be subject to potential challenges (*i.e.*, clawback rights) by an insolvency administrator or custodian under the rules of voidness as set out in the German Insolvency Code (*Insolvenzordnung*). In the event such a transaction is successfully voided (*angefochten*), the Holders of the Notes, may not be able to recover or retain any amounts under the Notes or the Collateral and may participate in the insolvency proceedings as unsecured creditors only. If payments have already been made under the Notes or Collateral, any amounts received from a transaction that had been voided would have to be repaid to the insolvency estate (*Insolvenzmasse*). In this case, the Holders of the Notes, as applicable, would only have a general unsecured claim under the Notes, as applicable, without preference in insolvency proceedings.

In particular, an act (*Rechtshandlung*) or a legal transaction (*Rechtsgeschäft*) (which term includes the granting of a guarantee, the provision of security and the payment of debt) which is detrimental to the creditors of the debtor may be avoided, *inter alia*, in the following cases, as recently amended by the Act for the improvement of legal certainty concerning avoidance claims pursuant to the German Insolvency Code and the German Code on Avoidance (*Gesetz zur Verbesserung der Rechtssicherheit bei Anfechtungen nach der Insolvenzordnung und dem Anfechtungsgesetz vom 29. März 2017*) that came into force on April 5, 2017:

- any act granting an insolvency creditor, or enabling an insolvency creditor to obtain, security (*Sicherung*) or satisfaction (*Befriedigung*) for debt if such act was taken (i) during the last three months prior to the filing of the petition for the opening of insolvency proceedings, provided that the debtor was illiquid (*zahlungsunfähig*) at the time such act was taken and the creditor knew of such illiquidity (or of circumstances that compellingly suggest that the debtor was illiquid) at such time, or (ii) after the filing of the petition for the opening of insolvency proceedings, if the creditor knew of the debtor's illiquidity or the filing of such petition (or of circumstances that compellingly suggest such illiquidity or filing);
- any act granting an insolvency creditor, or enabling an insolvency creditor to obtain, security (*Sicherung*) or satisfaction (*Befriedigung*) for debt to which such creditor was not entitled, or which was granted or obtained in a form or at a time to which or at which such creditor was not entitled to such security or satisfaction, if such act was taken (i) during the last month prior to the filing of the petition for the opening of insolvency proceedings or after such filing, (ii) during the second or third month prior to the filing of the petition and the debtor was illiquid at such time or (iii) during the second or third month prior to the filing of the petition for the opening of insolvency proceedings and the creditor knew at the time such act was taken that such act was detrimental to the other insolvency creditors (or had knowledge of circumstances that compellingly suggest such detrimental effect);
- a legal transaction by the debtor that is directly detrimental to the insolvency creditors or by which the debtor loses a right or the ability to enforce a right or by which a proprietary claim against a debtor is obtained or becomes enforceable, if it was entered into (i) during the three months prior to the filing of the petition for the opening of insolvency proceedings and the debtor was illiquid at the time of such legal transaction and the counterparty to such legal transaction knew of the illiquidity at such time or (ii) after the filing of the petition for the opening of insolvency proceedings and the counterparty to such legal transaction knew either of the debtor's illiquidity or of such filing at the time of the legal transaction;
- any act by the debtor without (adequate) consideration (*e.g.*, whereby a debtor grants security for a third-party debt, which might be regarded as having been granted gratuitously (*unentgeltlich*)), if it was effected in the four years prior to the filing of the petition for the opening of insolvency proceedings;

- any act performed by the debtor during the ten years prior to the filing of the petition for the opening of insolvency proceedings or at any time after the filing, if the debtor acted with the intention of prejudicing its insolvency creditors (*vorsätzliche Gläubigerbenachteiligung*) and the beneficiary of the act knew of such intention at the time of such act; in case the relevant act granted a creditor, or enabled a creditor to obtain, security or satisfaction for a debt, the above ten-year period is reduced to four years; “knowledge by the beneficiary of the act” in terms of such provision is presumed if the beneficiary knew that the debtor was imminently illiquid (*drohende Zahlungsunfähigkeit*) and that the relevant act disadvantaged the other creditors; in case the relevant act granted a creditor, or enabled a creditor to obtain, security or satisfaction in a form or at a time to which or at which such creditor was entitled, the “knowledge by the beneficiary of the act” is presumed if the beneficiary knew that the debtor was actually illiquid (*eingetretene Zahlungsunfähigkeit*) and that the relevant act disadvantaged the other creditors; the fact that the creditor agreed on a payment plan with the debtor or agreed to deferred payments establishes a presumption that he had no knowledge of the debtor being illiquid at this time;
- any non-gratuitous contract concluded between the debtor and an affiliated party that directly operates to the detriment of the creditors can be voided unless such contract was concluded earlier than two years prior to the filing of the petition for the opening of insolvency proceedings or the other party had no knowledge of the debtor’s intention to disadvantage its creditors as of the time the contract was concluded; in relation to corporate entities, the term “affiliated party” includes, subject to certain limitations, members of the management or supervisory board, general partners and shareholders owning more than 25% of the debtor’s share capital, persons or companies holding comparable positions that give them access to information about the economic situation of the debtor, and other persons who are spouses, relatives or members of the household of any of the foregoing persons;
- any act that provides security (*Sicherung*) or satisfaction (*Befriedigung*) for a shareholder loan (*Gesellschafterdarlehen*) or economically similar claim if (i) in the case of the provision of security, the act took place during the ten years prior to the filing of the petition for the opening of insolvency proceedings or after the filing of such petition or (ii) in the case of satisfaction, the act took place during the last year prior to the filing of the petition for the opening of the insolvency proceedings or after the filing of such petition; or
- any act whereby the debtor grants satisfaction for a loan claim or an economically equivalent claim to a third party if (i) the satisfaction was effected in the last year prior to the filing of a petition for the opening of insolvency proceedings or thereafter, and (ii) a shareholder of the debtor had granted security or was liable as a guarantor (*Garant*) or surety (*Bürge*) (in which case the shareholder must compensate the debtor for the amounts paid (subject to further conditions)).

In this context, “knowledge” is generally deemed to exist if the other party is aware of the facts from which the conclusion must be drawn that the debtor was unable to pay its debts generally as they fell due, that a petition for the opening of insolvency proceedings had been filed, or that the act was detrimental to, or intended to prejudice, the insolvency creditors, as the case may be. A person is deemed to have knowledge of the debtor’s intention to prejudice the insolvency creditors if he or she knew of the debtor’s illiquidity or imminent illiquidity, as the case may be, and that the transaction prejudiced the debtor’s creditors. With respect to an “affiliated party”, there is a general statutory presumption that such party had “knowledge”.

The granting of security concurrently with the incurrence of debt may be qualified as a “cash transaction” and may as such be privileged—under certain circumstances—under the German Insolvency Code (*Insolvenzordnung*) (*Bargeschäftsprivileg*) by not being subject to voidness rights.

Apart from the examples of an insolvency administrator or custodian voiding transactions according to the German Insolvency Code (*Insolvenzordnung*) described above, a creditor who has obtained an enforcement order (*Vollstreckungstitel*) could possibly also void any security right or payment performed under the relevant security right according to the German Act on Avoidance (*Anfechtungsgesetz*) outside formal insolvency proceedings. The prerequisites vary to a certain extent from the rules described above and the voidance periods are calculated from the date a creditor exercises its rights of voidance in the courts.

The German restructuring laws may be subject to further amendments in near future due to the directive of the European Parliament and of the Council on preventive restructuring frameworks, second chance and measures to increase the efficiency of restructuring, insolvency and discharge procedures and amending Directive 2012/30/EU, proposed by the EU Commission as of November 22, 2016 and adopted

by the European Parliament on March 28, 2019, which may, *inter alia*, stipulate that claims of the relevant creditors may be modified by majority vote and against the voting of a single creditor even outside formal insolvency proceedings.

Satisfaction of Subordinated Claims

The insolvency estate shall serve to satisfy the liquidated claims held by the personal creditors against the debtor on the date when the insolvency proceedings were opened. The following claims shall be satisfied ranking below the other claims of insolvency creditors in the order given below, and according to the proportion of their amounts if ranking with equal status: (i) interest and penalty payments accrued on the claims of the insolvency creditors from the day of the opening of the insolvency proceedings; (ii) costs incurred by individual insolvency creditors due to their participation in the proceedings; (iii) fines, regulatory fines, coercive fines and administrative fines, as well as such incidental legal consequences of a criminal or administrative offence binding the debtor to pay money; (iv) claims to the debtor's gratuitous performance of a consideration; and (v) claims for restitution of a shareholder loan (*Gesellschafterdarlehen*) or claims resulting from legal transactions corresponding in economic terms to such a loan.

Insolvency proceedings regarding natural persons

The two minority shareholders of the Issuer are natural persons. A natural person is only insolvent in case of an (imminent) inability to pay its debts as and when they fall due (*Zahlungsunfähigkeit*); an insolvency based on over-indebtedness (*Überschuldung*) does not apply to natural persons.

To the extent they do not operate commercially (and have not done so recently), the consumer insolvency proceedings (*Verbraucherinsolvenzverfahren*) might apply to the minority shareholders. These are insolvency proceedings based on three stages: (1) Prior to the filing for insolvency, the debtor has to set up and offer its creditors a plan to settle his debts in the course of an out-of-court debt-adjustment procedure (*außergerichtliches Schuldenbereinigungsverfahren*). During this out-of-court procedure, the general rules apply with respect to an enforcement of security interests, *i.e.*, there are no restrictions on enforcement of security. (2) If the debtor fails to reach a settlement with its creditors, he/she may file for insolvency. The insolvency court will then initiate an in-court debt-adjustment procedure (*gerichtliches Schuldenbereinigungsverfahren*) in which the court may, under certain circumstances, replace a creditor's consent to a settlement. During this in-court procedure, the preliminary insolvency proceedings (*vorläufiges Insolvenzverfahren*) are pending but the court may order preliminary restrictions on enforcement of security which might include the enforcement of the share pledges. (3) If the in-court procedure also fails, the court may open insolvency proceedings. With respect to security interests granted by a natural person, the insolvency proceedings do not differ much from the general insolvency proceedings. The consumer insolvency proceedings may also include an insolvency plan (*Insolvenzplan*) but the debtor may not apply for debtor-in-possession status (*Eigenverwaltung*). If not the natural person but one of its creditors files for insolvency over the assets of the natural person, the court allows the natural person/debtor to file for insolvency as well. If the debtor does so, he/she has to follow the above mentioned three steps. If the debtor refuses to file for insolvency, the court may open insolvency proceedings straight away.

Natural persons may under certain circumstances apply to be discharged from all residual debt remaining at the end of an insolvency proceeding (*Restschuldbefreiung*) if they agree to assign the seizable part of their wages for a period of generally six years from the opening of the insolvency proceedings to a court-appointed trustee. The period can be reduced to five years if the debtor has paid all costs of the proceedings or even three years if the amount that has been paid to the trustee is sufficient to repay at least 35% of the debt. The insolvency creditors may request the court to deny the discharge based on certain reasons stated in the German Insolvency Code (*Insolvenzordnung*). The discharge of all residual debt would not affect the pledges granted by the minority shareholders as the German Insolvency Code (*Insolvenzordnung*) excludes certain security interests (including pledges) from the effects of the discharge.

An insolvency administrator may void the granting of the pledges by the minority shareholders in the cases described above, in particular claiming the minority shareholders did not receive a (sufficient) consideration for providing the pledges.

Limitations on Validity and Enforceability of the Guarantees and the Security Interests

The granting of guarantees by German Guarantors will be subject to certain German capital maintenance rules of the German Act regarding Companies with Limited Liability (*Gesetz betreffend die Gesellschaften*

mit beschränkter Haftung) (the “GmbHG”) if that Guarantor is incorporated in Germany in the legal form of a German limited liability company (*Gesellschaft mit beschränkter Haftung*—a “GmbH”) or a German limited partnership with a German limited liability company as general partner (a “GmbH & Co. KG”). As a general rule, sections 30 and 31 GmbHG prohibit a GmbH from disbursing its assets to its shareholders to the extent that the amount of the GmbH’s net assets (*i.e.*, assets minus liabilities and liability reserves)—or, in case of a GmbH & Co. KG, its general partner’s net assets—is or would fall below the amount of its stated share capital (*Unterbilanz/Vertiefung einer Unterbilanz*). Guarantees or security interests granted by a GmbH or a GmbH & Co. KG in order to guarantee or secure liabilities of a direct or indirect parent or sister company are considered disbursements under sections 30 and 31 GmbHG. Moreover, under section 64 sentence 3 GmbHG a managing director (*Geschäftsführer*) of a GmbH can be held personally liable in certain circumstances for payments to shareholders that would render the GmbH illiquid. The granting of guarantees and security interests for the benefit of direct or indirect parent or sister companies of the GmbH could be considered as such disbursements and payments to shareholders.

In relation to a GmbH & Co. KG the capital maintenance and liquidity maintenance rules and principles described above for GmbHs apply, *mutatis mutandis*, also to the general partners of the GmbH & Co. KGs.

Therefore, in order to enable German subsidiaries to grant guarantees and to provide security interests to secure liabilities of a direct or indirect parent or sister company without the risk of violating German capital maintenance and/or liquidity maintenance rules and to limit any potential personal liability of management, it is standard market practice for notes, credit agreements, indentures, related guarantees and related security documents to contain so-called “limitation language” in relation to subsidiaries incorporated in Germany in the legal form of a GmbH or a GmbH & Co. KG. Pursuant to such “limitation language”, the beneficiaries of the guarantees contractually agree to enforce the guarantees and security interests against the German subsidiary only if and to the extent that such enforcement does not result in the subsidiary’s—or, in case of a GmbH & Co. KG, in the general partner’s—net assets falling below, or increasing an existing shortfall of, its stated share capital.

Accordingly, as a matter of German corporate law, the Guarantee Agreement, to the extent provided by a Guarantor incorporated in Germany in a relevant corporate form as described above, contain or will contain such contractual limitation language and such guarantees are limited in the manner described. This could lead to a situation in which the respective guarantee granted by such Guarantor cannot be enforced at all.

German capital maintenance and liquidity maintenance rules are subject to court decisions on an ongoing basis (see, for example, the more recent decision of the German Federal Supreme Court (*Bundesgerichtshof*) dated March 21, 2017, file no. II ZR 93/16, regarding the preservation of the share capital). Future court decisions may further limit the access of shareholders to assets of their subsidiaries constituted in the form of a GmbH or a GmbH & Co. KG, which can negatively affect the ability of the Issuer to make payment on the Notes or of the German Guarantors to make payments on the related guarantees.

In addition, it cannot be ruled out that the case law of the German Federal Supreme Court (*Bundesgerichtshof*) regarding so-called “destructive interference” (*existenzvernichtender Eingriff*) (*i.e.*, a situation in which a shareholder deprives its company of the liquidity necessary for it to meet its own payment obligations) may be applied by courts with respect to the enforcement of a guarantee or security interests granted by the Issuer and a German Guarantor. In such case, the amount of proceeds to be realized in an enforcement process may be reduced, even to zero. According to a decision of the German Federal Supreme Court (*Bundesgerichtshof*), a security or guarantee agreement may be void due to tortious inducement of breach of contract if a creditor knows about the distressed financial situation of the debtor and anticipates that the debtor will only be able to grant collateral by disregarding the vital interests of its other business partners. It cannot be ruled out that German courts may apply this case law with respect to the granting of guarantees and/or security interests to be granted by the Issuer and the German Guarantors. Furthermore, the beneficiary of a transaction effecting a repayment of the stated share capital of the grantor of the guarantee or the security interests could become personally liable under exceptional circumstances. The German Federal Supreme Court (*Bundesgerichtshof*) ruled that this could be the case if, for example, the creditor were to act with the intention of detrimentally influencing the position of the other creditors of the debtor in violation of the legal principle of *bonos mores* (*Sittenwidrigkeit*). Such intention could be present if the beneficiary of the transaction was aware of any circumstances indicating that the grantor of the guarantee or security interests was close to collapse (*Zusammenbruch*), or had reason to enquire further with respect thereto.

Accessory security interests/Parallel debt

Under German law, certain security interests such as pledges (*Pfandrechte*) are of strict accessory nature and are therefore dependent on the secured claims and require the security holder and the creditor of the secured claim to be identical. Such accessory security interests (*akzessorische Sicherungsrechte*) (i) will automatically lapse to the extent a secured claim is settled, discharged or novated, (ii) may not be assigned independently, but would automatically follow the claims they secure in case the relevant secured claim is assigned and (iii) may only be granted to the creditor of a claim to be secured by the accessory security interest.

The accessory security interests will also be granted to the Security Agent. The Security Agent is however not a creditor under the Notes. The Holders of the Notes on the other hand are creditors under the Notes and the Guarantees. In order to allow the Holders of the Notes to benefit from the pledges, such pledges will also secure a so-called “parallel debt” obligation created under the Intercreditor Agreement in favor of the Security Agent rather than secure the Holders of the Notes’ claims under the Notes directly. The parallel debt is in the same amount and payable at the same time as the obligations of the creditors under the Notes and the Guarantees (the “**Principal Obligations**”), and any payment in respect of the Principal Obligations will discharge the corresponding parallel debt and any payment in respect of the parallel debt will discharge the corresponding Principal Obligations. Although the Security Agent will have, pursuant to the parallel debt, a claim against the Holders of the Notes and the Guarantors for the full principal amount of the Notes, the legal concept of creating parallel debt obligations has not yet been tested before a German court. Therefore, it cannot be ruled out that such concept will not be recognized by German courts or that it will eliminate or mitigate the risk of invalidity and unenforceability of pledges. Therefore, the ability of the Security Agent to enforce the collateral may be restricted.

Moreover, the Security Agent holds the pledges in trust. This means that in the case of an insolvency of the Security Agent, the insolvency administrator over the insolvency estate of the Security Agent may successfully claim that there is no separation right (*Aussonderungsrecht*) of the Holders of the Notes with respect to the secured claims. As a consequence the secured claims (including the parallel debt) and the accessory security rights would remain with the (then insolvent) Security Agent.

German law does not generally permit the appropriation of pledged assets by the security holder upon enforcement of the pledge. The enforcement of a share pledge under German law usually requires the sale of the asset constituting the collateral through a formal process involving a public auction to which certain waiting periods and notice requirements apply. Under German law, it is unclear whether the security interest in the collateral gives the Security Agent the right to prevent other creditors of the entities having granted such security from foreclosing on and realizing the asset constituting the collateral. Some courts have held that certain types of security interests only give their holders priority (according to their ranking) in the distribution of any proceeds from the realization of the asset constituting the collateral and no right to intervene (*i.e.*, the right to request the court to impose a stay on proceedings initiated by other creditors).

FRANCE

Limitations on enforcement of security interests and cash amount (“soulte”)

Security interests governed by French law may only secure a creditor up to the secured amount that is due and unpaid to it. Pledges over securities account may generally be enforced at the option of the secured creditors either (i) by way of a sale of the pledged securities in a public auction (the proceeds of the sale being paid to the secured creditors) or (ii) by way of judicial foreclosure (*attribution judiciaire*) or contractual foreclosure (*pacte comissoire*) of the pledged securities to the secured creditors, following which the secured creditors become the legal owners of the pledged securities. If the secured creditors choose to enforce by way of foreclosure (whether a judicial foreclosure or contractual foreclosure), the secured liabilities would be deemed extinguished up to the value of the foreclosed securities. Such value is determined either by the court in the context of a judicial attribution or by a pre-contractually agreed expert in the context of a contractual foreclosure. If the value of the Collateral exceeds the amount of secured debt, the secured creditors may be required to pay the pledgor a cash amount (*soulte*) equal to the difference between the value of the securities as so determined and the amount of the secured debt. This is true regardless of the actual amount of proceeds ultimately received by the secured creditors from a subsequent on-sale of the Collateral.

If the value of such securities is less than the amount of the secured debt, the relevant amount owed to the relevant creditors will be reduced by an amount equal to the value of such securities, and the remaining amount owed to such creditors will be unsecured in that respect.

An enforcement of the pledged securities could be undertaken through a public auction in accordance with applicable law. If enforcement is implemented through a public auction procedure, it is possible that the sale price received in any such auction might not reflect the value of the securities since the latter will not be sold pursuant to a competitive bid process and/or a private sale organized by an investment bank and controlled by the vendor on the basis of a value determined pursuant to the methods usually used for the purpose of the acquisition of companies or groups of companies.

Recognition of validity of second or lower ranking financial securities account pledges by French courts

A pledge over the shares of a stock company (*société par actions*) governed by French law is a pledge over the relevant securities account (*nantissement de compte de titres financiers*) in which the shares of such company are registered. In France, no lien searches are available for security interests which are not registered, such as pledges over securities accounts (*nantissements de comptes de titres financiers*). As a result, no assurance can be given on the priority of a pledge over a securities account in which the shares of such a company are registered.

Moreover, a pledge over securities accounts is deemed, under French law, to remove the securities account from the possession of the grantor, thereby preventing such grantor from granting a second or lower ranking pledge thereon. The second or lower ranking pledge over the shares of such a company will therefore provide that the possession of the securities account is transferred to the custody of an agreed third party as “*tiers convenu*” (*entiercement*), that the first ranking and second or lower ranking secured parties have consented to the creation of second or lower ranking pledge and that the first ranking secured parties have accepted the appointment of the agreed third party as *tiers convenu* and that it hold the pledged securities as custodian for the benefit of both the first ranking and the second or lower ranking secured parties. This structure has not been tested before the French courts and no assurances can be given that such second or lower ranking pledges would be upheld if tested. Therefore, there is a risk that the second or lower ranking pledge over the securities account in which the shares of such company are respectively registered may be held void or unenforceable by a French court, which in turn could materially adversely affect the recovery under the Notes or Notes Guarantees (as applicable) following an enforcement event.

POLAND

Overview

Progroup Board sp. z o.o. (the “**Polish Guarantor**”), being a Polish limited liability company (Polish: *spółka z ograniczoną odpowiedzialnością, sp. z o.o.*) is incorporated and existing under the laws of Poland. Comments made below are relevant for the Polish limited liability company.

In the event of insolvency of the Polish Guarantor, insolvency proceedings may be initiated in Poland. Note, however, that if the center of main interest of the Polish Guarantor is situated in another European Union member state, the courts of that state shall have jurisdiction and the insolvency laws of that state shall apply pursuant to the Regulation (EU) 2015/848 of the European Parliament and of the Council of May 20, 2015, on insolvency proceedings (Official Journal No. L 141 of June 5, 2015).

If the centre of main interest of the Polish Guarantor is situated in Poland, the insolvency proceedings would be governed by the Bankruptcy Law (Polish: *Prawo Upadłościowe*) of February 28, 2003 (consolidated text: Journal of Laws of 2019, item 498, as amended) (the “**Bankruptcy Law**”), and a new restructuring law (Polish: *Prawo Restrukturyzacyjne*) of May 15, 2015 (consolidated text: Journal of Laws of 2019, item 243, as amended) (the “**Restructuring Law**”).

Please find below the general and non-exhaustive description of certain provisions of the Bankruptcy Law and the Restructuring Law.

Note that the Bankruptcy Law and the Restructuring Law may not be as favorable to your interests as creditors as the insolvency laws of other jurisdictions, including in respect of priority of creditors, the ability to obtain interest after the commencement of insolvency proceedings and the duration of the insolvency proceedings, and hence may limit your ability to recover payments due on the Notes and the Guarantees to an extent exceeding the limitations arising under other insolvency laws.

Insolvent debtor

Bankruptcy proceedings under Polish law may be initiated against insolvent debtors.

The debtor is deemed insolvent if it loses the ability to settle its due and payable financial liabilities (which will be presumed to be the case if a delay in payment exceeds three months).

Under the balance sheet test (for a debtor being a legal person, e.g. a limited liability company), the debtor will be deemed insolvent if according to its balance sheet, its financial obligations (except for future liabilities, including liabilities subject to a suspensory condition, and shareholder loans or other legal act having the similar effects) exceed the value of their assets and this status continues for longer than twenty four months. Note that even if the above conditions are met, the court may reject a bankruptcy petition, provided that there is no threat to the debtor's ability to perform its due and payable obligations in a short term.

Bankruptcy petition

Bankruptcy proceedings are initiated upon submitting a bankruptcy petition. Such a petition may be submitted by either the debtor or its personal creditors.

According to the Bankruptcy Law, the catalogue of persons authorized and obliged to submit a bankruptcy petition for the debtor has been determined, *inter alia*, as all persons who on the basis of the law, articles of association/statute of the company have the right to conduct the company's affairs and to represent it. The deadline for submitting the bankruptcy petition is thirty days from the date on which the reason for bankruptcy occurred.

Note that persons obliged to submit the bankruptcy petition may be held liable for damages resulting from a delay in submitting the petition to the court.

The court is obliged to refuse to initiate bankruptcy proceedings if the debtor's assets are insufficient to cover the cost of the proceedings or, additionally if the debtor's assets are sufficient to cover only the cost of the proceedings. The court may also reject the petition to declare bankruptcy if the debtor's assets are encumbered with a mortgage, pledge, registered pledge, treasury pledge or maritime mortgage to such a degree that the debtor's remaining assets are not sufficient to cover the cost of the proceedings.

Safeguard procedure before the bankruptcy proceedings

Upon receiving a bankruptcy petition, the court can, *ex officio* or upon a motion, secure the debtor's assets.

The court may also secure the debtor's assets, *inter alia*, through the appointment of an interim court supervisor (Polish: *tymczasowy nadzorca sądowy*) or a mandatory administrator (Polish: *zarządca przymusowy*), and suspend the execution proceedings against the debtor (and additionally the court may revoke seizure of a bank account).

Bankruptcy proceedings

Pursuant to the Bankruptcy Law, there is one bankruptcy proceedings, i.e. liquidation bankruptcy proceedings.

Upon acceptance of the bankruptcy petition, the court decides whether to initiate the bankruptcy proceedings. This decision shall be made within two months of submitting the bankruptcy petition, however this deadline has only instructive character.

The date of the bankruptcy is the date on which the bankruptcy order is issued by the court.

Creditors have the right to submit their claims within thirty days from the announcement of the bankruptcy order; claims may be submitted also after the lapse of the set deadline, however, all actions undertaken in the bankruptcy proceedings until that date are valid towards the creditor. If a claim is not included in the list prepared by a court receiver, the creditor has the right to appeal. The procedural requirements for submitting claims are very formal.

Prepared liquidation (so called "pre-pack")

The Bankruptcy Law provides for an institution called prepared liquidation (Polish: *przygotowana likwidacja*), also called "pre-pack".

In the pre-pack procedure, the bankruptcy petition may be accompanied by an application for approval of the terms of sale of a debtor's enterprise, its organized part or assets representing a major part of its enterprise. Nevertheless, it may not include assets secured with registered pledge if the registered pledge agreement provides for foreclosure of the assets or their sale to satisfy a pledgee's claims (unless a pledgee gives its consent).

Such application for approval of terms of sale must specify at least the sale price and a potential purchaser, and be accompanied by a valuation report prepared by a certified court expert.

It is possible to request that the debtor's enterprise will be handed over to the purchaser on the bankruptcy declaration day, in which case the full price will have to be paid in advance to the court's deposit account. Note that the sale to an affiliated company of the debtor is permissible only at a price not lower than the price indicated in the valuation report.

The court is obliged to accept the application if the offered price is higher than the estimated liquidation proceeds that could be raised in "standard" bankruptcy proceedings, less the estimated costs of the proceedings. If the offered price is lower than (but still close to) the estimated net liquidation proceeds, the court will still be in a position to approve the sale if it is supported by an "important social interest" or if it allows the distressed enterprise to be preserved.

Each creditor will be entitled to appeal against the court's decision approving a pre-packed sale within a week of its publication (whereas only the petitioner may appeal against a negative decision).

Liquidation bankruptcy

The Bankruptcy Law provides for one uniform bankruptcy proceedings.

As a rule, upon the court declaring liquidation bankruptcy, the debtor loses its right to manage its assets and a bankruptcy receiver (Polish: *syndyk masy upadłości*) is appointed. The financial liabilities of the debtor that have not yet become due and payable, become due and payable on the day the bankruptcy order is issued. The debtor's assets become the bankruptcy estate to be used to settle the debtor's creditors. The bankruptcy estate is managed by a bankruptcy receiver appointed by the court. Consent of the creditors' committee (Polish: *zgromadzenie wierzycieli*) or the bankruptcy receiver responsible for administering the bankruptcy is required for specified decisions made in relation to some matters connected with the bankruptcy process.

As a rule, the preferred type of liquidation under the Bankruptcy Law is the sale of the bankrupt's business as a whole.

Ineffectiveness of some legal acts with respect to the bankruptcy estate

Following the declaration of bankruptcy, the bankrupt's assets become the bankruptcy estate, which serves to satisfy the claims of the bankrupt's creditors. The bankruptcy estate covers, subject to exceptions, the assets belonging to the insolvent debtor on the date of the bankruptcy or acquired by it during the bankruptcy proceedings. Bankruptcy Law lists assets that are excluded from the bankruptcy estate by virtue of law, while other assets of the debtor can be excluded from the bankruptcy estate by a resolution of the creditors' committee or through the proceedings reviewed by the judge-commissioner (Polish: *sędzia-komisarz*).

Under the Bankruptcy Law, contractual provisions which provide for a change or termination of a legal relationship, to which the bankrupt is a party to, due to the declaration of bankruptcy (or in the case of filling a petition for bankruptcy), are null and void. Furthermore, contractual provisions, which make it impossible or difficult to achieve the objective of the bankruptcy proceedings, are ineffective towards the bankruptcy estate.

Legal transactions are ineffective towards the bankruptcy estate if concluded by the bankrupt within one year preceding the day, on which the bankruptcy petition was submitted and resulting in the bankrupt disposing of its assets: (i) without any reciprocal consideration for the bankrupt or (ii) bankrupt's consideration significantly exceeds the value of the consideration received by the bankrupt or reserved for the bankrupt or a third party.

Also ineffective towards the bankruptcy estate is granting of collateral for an undue debt and the payment of such debt effected by the insolvent debtor in six months preceding the day, on which the bankruptcy petition was submitted. The beneficiaries of such actions may, however, aim to have these transactions

considered effective, if they have not been aware of grounds for the declaration of bankruptcy while receiving payment or being granted the collateral.

Moreover, in relation to non-gratuitous legal transactions concluded by an insolvent legal person with its shareholders, representatives (including their spouses), as well as affiliated companies, their shareholders or representatives (including their spouses) executed within six months before the day on which the bankruptcy petition was submitted, the judge-commissioner (Polish: *sędzia-komisarz*) is entitled to declare them ineffective (*ex officio* or upon a motion) unless the party to such legal transaction demonstrates that such transaction was not to the creditors' detriment.

In addition, a transfer of future receivable is ineffective towards the bankruptcy estate if such receivable arises after the declaration of bankruptcy, unless the agreement on the transfer of receivable was concluded in writing with a certified date (Polish: *forma pisemna z datą pewną*) at least six months before the day on which the bankruptcy petition was submitted.

Mortgages, pledges, registered pledges or maritime mortgages established by the bankrupt within one year preceding the day on which the bankruptcy petition was submitted may be challenged in one of the following situations: (i) the bankrupt was not the personal debtor of the creditor (e.g. if the debtor was a guarantor) and the bankrupt did not receive any consideration in connection with such security, (ii) the consideration received was substantially lower than the value of the security, or (iii) the security interests was established for the benefit of its shareholders, representatives (including their spouses), as well as affiliated companies, their shareholders or representatives (including their spouses). The judge-commissioner, acting upon a motion, is competent to decide on the ineffectiveness of the established security towards the bankruptcy estate, however in case described in point (iii) above it is obliged to decide on such ineffectiveness unless the party to such legal transaction demonstrates that it was not to the creditors' detriment.

Pursuant to the Bankruptcy Law, the judge-commissioner, is authorized to deem ineffective towards the bankruptcy estate any contractual penalty (reserved for non-performance or improper performance of obligations) if the obligation was already performed to a large extent or the contractual penalty is excessive.

The transfer of the ownership title to a thing, claim or other right to the creditor (Polish: *przewłaszczenie na zabezpieczenie*) is effective towards the bankruptcy estate if such agreement has been made in writing with a certified date.

A credit agreement expires on the date bankruptcy is declared if prior to that date the lender did not disburse the funds to the bankrupt. The lender may pursue a claim in the bankruptcy proceedings for compensation by filing the claim with the judge-commissioner. If only a portion of the funds was disbursed to the bankrupt prior to the date of declaring bankruptcy, the bankrupt loses the right to request the disbursement of the remaining balance.

A declaration of bankruptcy does not affect the bankrupt's bank account agreement, securities account agreement, account agreement for derivatives, clearing account or collective account agreement.

Other selected consequences of bankruptcy

After the declaration of bankruptcy, the bankruptcy estate, as a general rule, cannot be encumbered with a mortgage, pledge, registered pledge, treasury pledge or a maritime mortgage in order to secure a liability incurred before the declaration of bankruptcy. Additionally it is forbidden to encumber the bankruptcy estate with a compulsory mortgage or a treasury pledge in order to secure a liability that arises after the declaration of bankruptcy.

Declaration of bankruptcy proceedings affects current court or administrative proceedings and debt collection proceedings. After declaration of the bankruptcy order, courts and administrative proceedings related to the bankruptcy estate may be opened and continued only by the a bankruptcy receiver or against him. Execution proceeding concerning a claim subject to filing to the bankruptcy estate, opened before the bankruptcy has been declared, shall be stayed by the virtue of law as at the date bankruptcy is declared. Execution proceeding shall be discontinued by the virtue of law after the decision declaring bankruptcy becomes final.

Satisfaction of claims in bankruptcy proceedings

In the case of bankruptcy, settling the creditors' claims is usually only possible upon the registration of the claims by the bankruptcy receiver. The claims are satisfied according to certain priorities. The costs of bankruptcy proceedings are covered by separate legal provision, which sets out that costs of bankruptcy proceedings shall be satisfied on an on-going basis during the process of liquidation, before first category. Claims described in the below categories are settled only after all costs of the bankruptcy proceedings, debts of bankruptcy estate have been settled.

Unsecured creditors' claims are settled in the following order (as far as a legal person is concerned):

- first category—this category, inter alia, covers claims arising out of an employment relationship falling due and payable before the bankruptcy was declared, with certain exceptions, certain contributions to the social security insurance system, certain claims which arise during restructuring proceedings, claims arising from credit, loans, bonds, guarantees or letters of credit or other financing arrangement provided in the approved restructuring proceedings and granted in connection with the performance of such arrangement (if the bankruptcy was declared as a recognition of a bankruptcy petition submitted not later than three months after the final repeal of such restructuring arrangement).
- second category—covers claims not covered in other categories including claims payable to private creditors as well as tax liabilities, other public levies and contributions to the social security insurance system. Thus, private creditors are treated equally with tax authorities.
- third category—covers subordinated interest on claims included in the senior categories in the order, in which they are paid on the capital, as well as judicial and administrative fines and claims arising under donations and legacies.
- fourth category—covers shareholders' claims arising from loan agreements as well as other legal transactions with similar effects, which were executed within five years before the bankruptcy announcement was made (with some exceptions such as loans granted within the frame of the restructuring proceedings or loans granted by the shareholders), shareholders under this category are also entitled to interest on described transactions.

Settling claims from one of these categories is only possible after fully settling claims of the creditors from a more senior category. If settling all debts included in the same category is not possible due to lack of assets, the debts should be settled proportionally.

The liquidation of the bankruptcy estate is performed by selling the bankrupt's enterprise as a whole or by organized parts, by selling all immovable and movable property, by enforcing claims against the debtors of the bankrupt, and by exercising other proprietary rights included in the bankruptcy estate or by alienation thereof.

The Bankruptcy Law distinguishes between three types of sale (*i.e.* at an arm's length basis, at an auction or at a tender). The sale (transfer) of receivables is permissible. As stated above, as a rule, the bankrupt's enterprise should be sold as a whole.

Monies obtained from the liquidation of assets, liabilities and rights encumbered with a mortgage, a pledge or security transfer of title, registered pledge, treasury pledge, maritime mortgages are allocated to settle creditors' claims that are secured by such assets, liabilities or rights (subject to certain exceptions). Monies remaining after settling those creditors' claims are included in the bankruptcy estate and satisfied in accordance with categories of claims specified above.

The proceedings will be closed by the court once all the monies are distributed. The court shall also close the insolvency proceeding in the event of lack of assets or inability to fully settle the creditors' claims. In some cases, liquidation may be avoided through arrangement with creditors and the company can continue to operate.

Debts currency and interest due in the bankruptcy proceedings

Any debt payable in a currency other than Polish zloty (such as euro), if being put on the list of debts, must be converted into Polish zloty at the National Bank of Poland's average exchange rate for the date the bankruptcy court issues a decision on the debtor's bankruptcy (and regardless of whether the debt has fallen due or not). Nevertheless, an inclusion of a debt payable in currency other than Polish zloty in the list of bankruptcy claims does not result in conversion of such claim into claim denominated in Polish zloty.

Furthermore, in case of unsecured claims, interest is satisfied from the assets of the bankruptcy estate only for the time period until the date the bankruptcy is declared.

Restructuring proceedings

In order to enable insolvent or threatened with insolvency debtors to recover their ability to overcome financial difficulties, rather than declare bankruptcy, four types of restructuring proceedings are provided by the Restructuring Law:

- proceedings for approval of an arrangement (Polish: postępowanie o zatwierdzenie układu),
- accelerated arrangement proceedings (Polish: przyspieszone postępowanie układowe),
- arrangement proceedings (Polish: postępowanie układowe),
- remedial proceedings (Polish: postępowanie sanacyjne).

The above proceedings are aimed at the debtor concluding an arrangement with its creditors (including partial arrangements), which enable the debtor to satisfy the creditors' claims and operate further. The difference in the said proceedings is in the scope of the debtor's rights to manage its assets, and the scope of the debtors' protection against the creditors. Proceedings, subject to certain exceptions, are initiated by the debtor. For instance, also a creditor is entitled to file a petition for the commencement of remedial proceedings in relation to an insolvent legal person.

The creditors may vote in single or separate groups. If creditors vote in a single group, the arrangement is concluded if it is accepted by the majority of voting creditors who hold in aggregate at least two thirds of the total sum of claims held by the voting creditors (except for the proceedings for approval of an arrangement, where the debtor collects the votes in writing itself and the required majority is measured by reference to the total amount of claims held by creditors entitled to vote and not by reference to the amount of claims held by voting creditors).

The creditors may be split into separate groups (classes) based on the criteria of "common category of interests". In such case, the arrangement is concluded if it is accepted in each group by a majority of voting creditors in the group whose claims amount to (in aggregate) at least two thirds of the total sum of claims held by the voting group members (with respective modification of calculating the majority in case of proceedings for approval of an arrangement described above). Even if there is no required majority in one or more of the groups of creditors, the arrangement will still be deemed concluded if: (i) the creditors representing in aggregate at least two thirds of the total sum of claims held by the voting creditors have voted in favor of the arrangement (with respective modification of calculating the majority in case of proceedings for approval of an arrangement described above), and (ii) the creditors from the dissenting group/groups are satisfied through the arrangement to an extent which is not less favorable than in the case of liquidation of the debtor.

An arrangement accepted by the required majority of creditors is subject to an approval by the court. The court rejects the arrangement if: (i) it violates the law or (ii) it is obvious that the arrangement will not be performed. The court is also entitled to reject the arrangement if it is obviously detrimental to creditors who voted against it and raised objections. The accepted arrangement is binding on all creditors, whose receivables are, under the law, covered by the arrangement, which may include claims not specified on the creditor's list.

In case of conflicting petitions for bankruptcy and for restructuring, the court withholds the bankruptcy petition and the restructuring petition should be considered first (if the restructuring petition is accepted, it will not be possible to declare bankruptcy as long as restructuring proceedings are pending). Exceptionally, if the withholding of the bankruptcy petition should be contrary to the interest of all creditors, the bankruptcy court may decide to consider both petitions at the same time.

Information on bankruptcy restructuring proceedings will be disclosed in the National Register of Indebted (Polish: *Krajowy Rejestr Zadłużonych*) operating as of December 1, 2020.

As a general rule, the arrangement covers, subject to some exceptions, all personal claims against the debtor originated prior to the commencement of the restructuring proceedings (the day of issuing a court's decision on the opening of accelerated arrangement proceedings, arrangement proceedings and/or remedial proceedings further referred to as "**commencement date**", in case of proceedings for approval of an arrangement the consequences of commencing the restructuring proceedings take effect from the arrangement day), together with interest accruing from the commencement date, as well as conditional

claims, if the condition fulfils when the arrangement is being performed. Above relates both to financial and non-financial claims (except for *inter alia* certain social insurance contributions, claims under employment agreements or claims for the handover of property). If a creditor objects to the restructuring of its non-financial claim (or if due the nature of a non-financial claim, it is not possible to restructure it), the relevant claim will be converted to a financial one (with effect from the commencement date). In addition, claims under reciprocal agreements (Polish: *umowy wzajemne*) are covered by the arrangement only if: (i) the counterparty's performance is divisible and (ii) only to the extent that the counterparty has performed the agreement prior to the commencement date of the restructuring proceedings and has not received a reciprocal consideration from the debtor.

“Partial” arrangements

The debtor may enter into a “partial” arrangement (Polish: *układ częściowy*) only with selected classes of creditors (e.g. secured creditors or significant suppliers), however, it is permitted only in (i) an arrangement approval proceedings and (ii) accelerated arrangement proceedings. It should allow the debtor to reach an arrangement in a faster and more discreet way. However, the selection of creditors for that purpose must be compliant with statutory tests (i.e. it must be based on objective, unambiguous and economically justified criteria) and must not be only aimed at eliminating dissenting creditors from relevant voting classes.

Impact of restructuring proceedings on certain agreements

Contractual provisions, according to which termination or modification of legal relationship is triggered by submitting a petition for the commencement of restructuring proceedings or commencement of such proceedings are void by virtue of law. Also, the terms of agreements with the debtor to be restructured which make it impossible or difficult to achieve the purposes of restructuring proceedings (except for arrangement approval proceedings), are ineffective against the debtor's estate.

In principle, upon the commencement of restructuring proceedings (other than arrangement approval proceedings), it is prohibited to terminate certain agreements which constitute source of incomes for the debtor, such as tenancy or lease agreements relating to the premises in which the debtor's enterprise is operated (unless the board of creditors agrees otherwise), property insurances, facility agreements (but only in relation to funds made available to the debtor before the commencement date), leasing agreements, bank account agreements, suretyships, licences granted to the debtor, guarantees and letters of credit issued before the commencement date.

Preservation of security interests in restructuring proceedings

As a rule, it is not possible to establish new security interests to secure a claim not covered by the arrangement (unless the board of creditors agrees otherwise) once the restructuring proceedings have commenced. However, if an application to register a mortgage, pledge, registered pledge, treasury pledge or maritime mortgage is filed more than six months before submitting a petition to commence restructuring proceedings, the mortgage or pledge will be registered (in accelerated arrangement and remedial proceedings).

Also, according to a general rule, *in rem* security interests (e.g. mortgage, pledge, registered pledge, security assignment) securing a claim not covered by the arrangement survive the restructuring proceedings and the claims secured by any of such security interests are not affected by the arrangement. Hence, the arrangement covers secured claims to the extent such claims are not covered by the value of collateral, or the relevant secured creditors agree to be covered by the arrangement. Secured creditors who give their consent to the arrangement may be assigned to a separate group (class) of creditors and be afforded different treatment in the arrangements from the one of unsecured creditors.

In relation to partial arrangements, the proposed arrangement offers the relevant secured creditor full satisfaction (on a date specified in the arrangement) or satisfaction in part, but to the extent not lower than the one, which is expected in the case of enforcement of security interest, the relevant secured claim will be covered by the arrangement irrespective of the creditor's consent.

Proceedings for approval of an arrangement

These proceedings are available if the sum of disputed claims does not exceed fifteen per cent of the total claims held by creditors entitled to vote. Although, the debtor continues to manage its assets, it is required

to appoint a licensed supervisor (Polish: *nadzorca układu*), who will: (i) prepare a restructuring plan, (ii) cooperate with the debtor in preparing the arrangement proposals, (iii) prepare a list of claims and a list of disputed claims, (iv) assist the debtor in properly collecting the votes of creditors in favor of the arrangement, and (v) prepare a feasibility assessment of the arrangement in a form of a report.

The debtor determines an arrangement day (Polish: *dzień układowy*). Claims arising after the arrangement day are not subject to the arrangement. The debtor presents a restructuring plan to its creditors and collects their votes on the arrangement. Once the approving votes of the required regulatory majority have been obtained, the debtor files a petition with the court (within three months from giving the votes) in order to accept and approve the arrangement. The debtor also submits to the court a report with a feasibility assessment of the arrangement. The court issues a decision whether to accept and approve the arrangement within fourteen days from submitting the petition. From the date of issuing the decision, a licensed supervisor obtains the rights of a court supervisor (Polish: *nadzorca sądowy*) and is obliged to supervise the proper performance of the approved arrangement.

Accelerated arrangement proceedings

Similarly to proceedings for approval of an arrangement, these proceedings are available if the sum of disputed claims also does not exceed fifteen per cent of the total claims held by creditors entitled to vote. It may be used, in particular, if there is a large number of creditors and the debtor is unable to collect their votes on the arrangement by itself.

The debtor prepares and submits a petition for the acceptance and approval of the arrangement together with a statement that information included therein is true and complete. The court issues a decision whether to accept and approve the arrangement within one week from submitting the petition and appoints (i) a court supervisor (Polish: *nadzorca sądowy*), who will supervise the debtor's management of its assets and (ii) a judge-commissioner (Polish: *sędzia-komisarz*), who *i.a.* will manage the restructuring proceedings, supervise the activity of the court supervisor and—if applicable—(iii) the administrator. If the court refuses to commence accelerated arrangement proceedings, the debtor may lodge a complaint against it. The creditors, in turn, may lodge a complaint against the commencement of the accelerated arrangement proceedings.

Within 2 weeks from the date on which the accelerated arrangement proceedings are commenced, the court supervisor prepares and submits to the judge-commissioner (i) a restructuring plan, (ii) a list of claims and (iii) a list of disputed claims providing them with (i) arrangement proposals, (ii) information on division of the creditors on the grounds of their category of interests as well as on (iii) a manner of way of voting at the creditors' meeting. Subsequently, the judge-commissioner sets the date of the creditors' meeting for the purpose of voting on the arrangement and informs of that date the creditors, who are on the list of claims.

The debtor continues to manage its assets under the supervision of the court supervisor (optionally the court may appoint an administrator (Polish: *zarządca*) to take over the management of the arrangement estate). The court may revoke the debtor's management of assets and establish an administrator if: (i) the debtor does not comply with the judge-commissioner's or the court supervisor's directions, (ii) its management does not guarantee the performance of the arrangement or if a trustee (Polish: *kurator*) has been appointed for the debtor or (iii) the debtor's management does not comply with law (whether intentionally or not) to the detriment (actual or potential) of the creditors.

In addition, once the accelerated arrangement proceedings are commenced, *inter alia*: (i) the estate which enables the debtor to operate its undertaking and the debtor's estate become the arrangement estate (Polish: *masa układowa*), (ii) the debtor provides the judge-commissioner and the court supervisor with information and documents concerning the debtor's undertaking and assets, (iii) execution proceedings relating to claims covered by the arrangement are suspended by virtue of law, (iv) the debtor/administrator may not settle performances from the claims, which are covered by the arrangement when the proceedings are pending (to some extent this rule does not apply to contractual compensation clauses (Polish: *klauzula kompensacyjna*)).

Arrangement proceedings

These proceedings are available only for the debtors, whose disputed claims exceed fifteen per cent of the total claims held by creditors entitled to vote and, as a result, both types of previous proceedings cannot be initiated.

The debtor prepares and submits a petition for the acceptance and approval of the arrangement without attaching the arrangement proposals. The debtor needs to demonstrate in the petition the probability of settling by the debtor the costs of the proceedings and fulfilling liabilities which will arise after the commencement of arrangement proceedings. In principle, the court issues a decision whether to accept and approve the arrangement within two weeks from submitting the petition (this period may be extended to six weeks, if it is necessary to conduct a trial).

The court also appoints a court supervisor (Polish: *nadzorca sądowy*), who will supervise the debtor's management of its assets and a judge-commissioner (Polish: *sędzia-komisarz*), who will manage the restructuring proceedings and supervise the activities of the court supervisor and, if applicable, the administrator (Polish: *zarządca*).

The court may: (i) secure the debtor's assets through the appointment of an interim court supervisor (Polish: *tymczasowy nadzorca sądowy*) for the period between the filing of the petition and the commencement of the proceedings, (ii) suspend pending enforcement proceedings conducted in order to enforce claims covered with the arrangement and (iii) revoke the seizure of the debtor's bank account at the request of the debtor or the interim court supervisor. The debtor or the creditor who is in the course of conducting the enforcement may lodge a complaint against the court's decision to suspend pending enforcement proceedings and to revoke the seizure of the debtor's bank account. If the court decides to revoke the seizure of the debtor's bank account, it needs to appoint an interim court supervisor, who will give consent to the debtor's dispositions regarding the sums maintained on this bank account.

Within thirty days from the commencement of the arrangement proceedings, the court supervisor: (i) prepares and submits to the judge-commissioner a restructuring plan and a list of claims, (ii) determines the composition of the arrangement estate (Polish: *masa układowa*) by preparing a specification of inventory (Polish: *spis inwentarza*) together with an estimation of the arrangement estate. Upon the receipt of the restructuring plan and the list of claims, the judge-commissioner sets the date of the creditors' meeting for the purpose of voting on the arrangement and informs the creditors of that date providing them with (i) arrangement proposals, (ii) information on division of the creditors on the grounds of their category of interests as well as on (iii) a manner of way of voting at the creditors' meeting.

The debtor continues to manage its assets under the supervision of the court supervisor (optionally the court may appoint an administrator to take over the management of the arrangement estate). The court may revoke the debtor's management if: (i) the debtor does not comply with the judge-commissioner's directions, (ii) its management does not guarantee the performance of the arrangement or (iii) its management does not comply with the law (whether intentionally or not) to the detriment (actual or potential) of the creditors.

In addition, once the arrangement proceedings are commenced, *inter alia*: (i) execution proceedings relating to claims covered by the arrangement are suspended by virtue of law, (ii) the creditors may initiate judicial, administrative or judicial-administrative proceedings or proceedings before arbitration courts (Polish: *sądy polubowne*) regarding satisfaction of claims disclosed in the specification of inventory, (iii) the court supervisor accedes by virtue of law to pending judicial, administrative or judicial-administrative proceedings or proceedings before arbitration courts regarding the arrangement estate.

Remedial proceedings

This type of proceedings is available only for insolvent debtors and provides for the broadest scope of restructuring activities and protection against creditors. Unlike other types of restructuring proceedings, it may be also initiated by the debtor's personal creditor (Polish: *wierzyciel osobisty*) or a trustee (Polish: *kurator*), if appointed by the registry court.

The debtor prepares and submits a petition for commencing remedial proceedings. The debtor needs to demonstrate in the petition the probability of settling by the debtor the costs of the proceedings and fulfilling liabilities which will arise after the commencement of remedial proceedings. The court may secure the debtor's assets through the appointment of an interim court supervisor (Polish: *tymczasowy nadzorca sądowy*) or an interim administrator (Polish: *tymczasowy zarządca*) for the period between the filing of the petition and the commencement of the proceedings. In principle, the court issues a decision whether to commence remedial proceedings within two weeks from submitting the petition (this period may be extended to six weeks, if it is necessary to conduct a trial). The court appoints a judge-commissioner (Polish: *sędzia-komisarz*), who will manage the proceedings and supervise the activities of the administrator (Polish: *zarządca*). The appointment of an administrator to manage the debtor's estate

(remedial estate) is mandatory, unless the debtor's involvement is necessary to conduct successful restructuring and the debtor guarantees proper management (in which case the court may agree to the debtor's retaining management over the whole or a part of the undertaking).

Once the court issues the decision on the commencement of remedial proceedings, the debtor is obliged to pass the whole estate and documents related thereto to the administrator (unless the debtor has been given the right to manage its assets), and provide the judge-commissioner and the administrator with all necessary or required information. Subsequently the administrator, in cooperation with the debtor, submits a restructuring plan to the judge-commissioner within thirty days from the commencement of the proceedings (this period may be extended to three months), who accepts and approves the restructuring plan upon obtaining, the opinion of the board of creditors (Polish: *rada wierzycieli*). After obtaining the approval, the administrator performs the restructuring plan.

In addition, once the remedial proceedings are commenced, *inter alia*: (i) commercial power of attorney (Polish: *prokura*) and other powers of attorney granted by the debtor expire by virtue of law (in the course of remedial proceedings new commercial power of attorney or powers of attorney may be granted by the administrator), (ii) the administrator is granted the right to "cherry-pick" executory contracts (Polish: *umowy wzajemne*) which have not been performed in full or in part prior to the commencement date, subject to the judge-commissioner's consent. (ii) the estate which enables the debtor to operate and the debtor's estate becomes the remedial estate (Polish: *masa sanacyjna*), whose components are determined by the administrator by means of preparing a specification of inventory (Polish: *spis inwentarza*) together with an estimation of the remedial estate (Polish: *ustalenie składu masy sanacyjnej*), within thirty days from the commencement of the proceedings, (iii) it is possible to adjust the employment level to the needs of the reorganized undertaking, (iv) opened inheritance to which the debtor is appointed, is included in the remedial estate, (v) pending execution proceedings relating to remedial estate are suspended by virtue of law, (vi) the creditors may initiate judicial, administrative or judicial-administrative proceedings or proceedings before arbitration courts (Polish: *sądy polubowne*) which regard satisfaction of claims disclosed in the specification of inventory, (vii) judicial, administrative or judicial-administrative proceedings or proceedings before arbitration courts regarding the remedial estate may be initiated by or conducted against the administrator, in such case the administrator acts in his/her own name but on behalf of the debtor, (viii) at the request of the debtor, the judge-commissioner may revoke the seizure of elements included in the remedial estate in the course of enforcement or proceedings aimed at securing claims (Polish: *postępowanie zabezpieczające*), if such elements are necessary for the debtor to operate.

Also, certain legal transactions are ineffective towards the remedial estate once the remedial proceedings are commenced. These are: (i) transactions by means of which the debtor has disposed of its assets, if they were concluded by the debtor within one year preceding the day, on which the petition on commencement of the remedial proceedings was submitted and the value of the debtor's performance (Polish: *świadczenie*) significantly exceeds the value of the performance received by or reserved for the debtor, (ii) security interests, which have been established indirectly in connection with receiving a performance by the debtor within one year preceding the day, on which the petition on commencement of the remedial proceedings was submitted (iii) security interests, which have been established by the debtor within one year preceding the day, on which the petition on commencement of the remedial proceedings was submitted in the part such security interests exceed more than the half of the value of secured performance received by or reserved for the debtor together with claims for ancillary claims on the day of establishing such security interests. The above rules also apply to guarantees, suretyships (Polish: *poręczenia*) and to other similar activities performed to secure performances.

Limitations on validity and enforceability of the Guarantees and the security interests

Comments made below are relevant for the Polish Guarantor, being the Polish limited liability company.

Governing law and enforceability

In the event of subjecting the Polish Guarantor's Guarantees and Collateral to the laws of Germany in a dispute before a Polish court, only substantive laws of Germany will be applied while the laws of procedure will be governed by Polish law. Furthermore, as a rule, a Polish courts can refuse to apply or execute foreign legal provisions, if the application of such provisions results in the contravention of peremptory rules of Polish public policy, or if specific law has to be applied regardless of the choice of law (*i.e.*, should any rights *in rem* be involved, they will be subject to the laws of the country in which the subject of these rights is located).

As a general rule, the decisions of Polish courts become final and non-appealable after execution of appropriate remedy path or after the expiry of the statutory term to file a remedy, subject to applicability of extraordinary legal remedies if available.

The decisions issued by foreign courts, as the general rule, become enforceable in Poland after establishing their enforceability by the Polish court. The Polish court may refuse to declare the enforceability of the decision of the foreign court, *inter alia*, if the decision is in contravention of peremptory rules of Polish public policy.

As a general rule, the decisions of the courts of other EU member states do not need to be declared enforceable by the Polish courts, prior to their enforcement in Poland. Enforceability of these decisions may be challenged, however, in a separate proceedings before the Polish court.

As a general rule, decisions of the Polish courts (including on issuance of enforceability clause) and appropriate actions of enforcement officers with whom the enforcement of claims is sought may be, depending on the circumstances, required for the enforcement of the given security interest.

Insolvency as a result of an excess of obligations over the value of the company's assets

Obligations of the Polish Guarantor under the Notes and the Guarantees and Collateral are subject to limitations resulting from the application of provisions of the Polish Bankruptcy Law.

Limited liability companies may be deemed insolvent if their financial obligations exceed the value of their assets and this status continues for longer than twenty four months (except for future liabilities, including liabilities subject to a suspensory condition, and shareholder loans or other legal act having the similar effects). Nevertheless, even if the above conditions are met, the court may reject a bankruptcy petition, provided that there is no threat to the debtor's ability to perform its due and payable obligations in a short term.

Actio Pauliana

Polish civil law provides a basis for declaring some actions done to the detriment of creditors ineffective (so-called "*actio Pauliana*"). In general, if as a result of a legal act performed by a debtor to the detriment of creditors, a third party gains a financial benefit, each of the creditors may demand that the said act be declared ineffective with respect to him, if the debtor acted knowingly to the creditors' detriment, and the third party knew or, having used due care, could have learned of it. This provision applies accordingly if the debtor acts with an intention to harm future creditors. It is assumed that the debtor's legal act is performed to the creditors' detriment if, as a result of such act, the debtor becomes insolvent or becomes insolvent to a greater degree than he was before performing the act (as described in Supreme Court judgements Case No. II CSK 548/11, Case No. III CSK 143/16, Case No. III CSK 214/11). The application to the court with respect to "*actio Pauliana*" can be filed within five years from the date of the act.

Limitations resulting from the Polish Commercial Code

The Notes and the Guarantees and the grant of Collateral by the Polish Guarantor is also subject to certain provisions of the Polish Commercial Companies Code (Polish: *Kodeks Spółek Handlowych*) of September 15, 2000 (consolidated text: Journal of Laws of 2019, item 505, as amended) (the "**Polish Commercial Companies Code**"). With respect to the limited liability company (Polish: *spółka z ograniczoną odpowiedzialnością, sp. z o.o.*) pursuant to the Polish Commercial Companies Code, the creation of a limited right *in rem* over the enterprise or over its organized part requires a resolution of the shareholders under the pain of invalidity.

Pursuant to Article 189 § 2 of the Polish Commercial Companies Code, the shareholders may not receive, under any title, any payments from the Polish limited liability company's assets needed to fully cover the share capital of this company. A breach of this rule results in the shareholders' obligation to return the payments up to the amount of the share capital. Therefore, the liability of any Guarantor incorporated under Polish law on account of payments under the Notes and the Guarantees and Collateral should be limited, in particular, to the extent that it would result in a reduction of its assets necessary to cover in full its share capital in breach of Article 189 § 2 of the Polish Commercial Companies Code.

If a share pledge is enforced and the shareholder changes, a new "relation of domination" might arise. In such case the new shareholder would be obliged to notify the dependent company, *i.e.*, the Polish Guarantor, of this fact. Otherwise, its right to vote from its shares representing more than 33% of the share

capital of the dependent company will be suspended. A new relation of domination might also arise if under a pledge agreement, the pledgee gains a majority of the votes at the general meeting of the Polish Guarantor. The corresponding notification duty has to be fulfilled by the pledgee.

Interests limitation

Pursuant to Article 359 § 2¹ in conjunction with § 2 of the Act of 23 April 1964 Civil Code (consolidated text: Journal of Laws of 2018, item 1025, as amended) (the “**Civil Code**”), the maximum interest resulting from the legal act, i.e. so-called “capital interest” (Polish: *odsetki kapitałowe*) cannot per annum exceed double statutory interest (i.e. double of the sum of: (i) the reference rate published by the National Bank of Poland and (ii) 3.5 percentage points). As of the date of this memorandum, the maximum capital interest amounts to 10%.

In addition, according to the Article 481 § 2¹ in conjunction with § 2 of the Civil Code, the maximum interest resulting from a delay (Polish: *odsetki za opóźnienie*) cannot per annum exceed double statutory interest for delay (i.e. double of the sum of: (i) the reference rate published by the National Bank of Poland and (ii) 5.5 percentage points). As of the date of this memorandum, the maximum interest for delay amounts to 14%.

Should the value of interest exceed the value of relevant maximum interest, then relevant maximum interest is due. Contractual provisions cannot exclude or limit the provisions on maximum interest. The above mentioned specific provision of Polish law shall be applied by a Polish court irrespective of the fact that the parties have chosen foreign law to govern the transaction (overriding mandatory provisions).

Clearance from the President of the Polish Office for Protection of Competition and Consumers in order to execute some rights over shares

An exercise of voting rights in the Polish Guarantor by the holder of the relevant security under a power of attorney may be recognized as a change of control pursuant to the Act on Protection of Competition and Consumers of February 16, 2007 (consolidated text: Journal of Laws of 2019, item 369, as amended) (the “**Competition Law**”). Art. 14 of the Competition Law provides with exceptions, when the clearance from the President of the Polish Office for Protection of Competition and Consumers (the “**President of UOKiK**”), is not required. Among others, the notification is not required, when an entity acquires or takes up, on a temporary basis, stocks and shares with a view to securing debts, provided, however, that such entity does not exercise the rights arising from these stocks or shares, except for the right to sell.

Thus, the holder of such security may be obliged to notify the President of UOKiK about its intention to exercise its voting rights and to obtain prior antimonopoly clearance as the enforcement of a registered pledge through the appropriation of the shares by the Security Agent may be recognized as a notifiable concentration under the Competition Law.

Perfection requirements

Generally, under Polish law, for a valid and effective establishment of security interests certain perfection requirements need to be fulfilled, including the requirements specified below.

The registered and financial pledges over the shares in the Polish Guarantor may be validly established only after fulfillment of the certain perfection requirements including the following: (i) the proper registered pledge agreement must be executed, the registered pledge must be registered in the register of pledges maintained by the competent court and will become effective vis-à-vis the Polish Guarantor once it is notified of the establishment of such pledge; (ii) the proper financial pledge agreement must be executed and will become effective vis-à-vis the Polish Guarantor once it is notified of the establishment of such pledge, (iii) the pledges should be disclosed in the book of shares of the Polish Guarantor. Additional formal requirements are to be complied with.

The registered pledges over the assets may be validly established only after fulfillment of the certain perfection requirements including the following: (i) the proper pledge agreement must be executed and (ii) the registered pledge must be registered in the register of pledges maintained by the competent court.

The mortgage may be validly established only after fulfillment of the certain perfection requirements including the following: (i) an agreement in a form of a notarial deed must be executed, (ii) the mortgage must be registered in the land and mortgage register and takes effect as of the date on which the motion to register the mortgage was filed with the court.

The agreement of the security assignment of a thing, receivable or of other right (even if governed by non-Polish law) is effective towards the bankruptcy estate (as defined by the Bankruptcy Law), if it was executed in writing with a certified date (*i.e.*, e.g. a date certified by a Polish notary).

In principle, a secured creditor can enforce its security once the secured claim becomes mature (that is, the debt becomes due and payable). Under certain circumstances, the creditor must obtain a final and non-appealable court decision and enforcement clause before enforcing its security. A less formal procedure is possible, for example, if the claim is secured by registered or financial pledge and the pledge agreement provides that the creditor can take over the pledge object.

Parallel debt structure under Polish law

In majority of cases, under Polish law security interests cannot be granted to a party other than the creditor of the secured claim. Generally, under Polish law, the pledge or mortgage is strictly accessory and follows the debt or claim it secures and may not be transferred without such debt or claim. If such debt or claim is transferred without the pledge or mortgage, the latter will expire.

For that reason, in certain transactions, also in Poland, a parallel debt structure is used, whereby the guarantor, as a separate and independent obligation governed by non-Polish law, undertakes to pay to the security agent amounts equal to the amounts due by it to the other creditors. Such parallel debt structure, therefore, creates a separate and independent claim of the security agent that can be validly secured by a security interest. Consequently, the security interests are granted to the security agent in its own capacity as a creditor acting in its own name pursuant to the parallel debt, and not as a representative of the creditors. It is usually expressly agreed in such parallel debt agreement that the obligations of the debtor towards the security agent shall be decreased to the extent that the corresponding principal obligations to the creditors are reduced (and vice versa).

The Supreme Court issued the judgments on October 9, 2009 (Case No. IV CSK 145/09, Case No. IV CSK 169/09 and Case No. IV CSK 155/09) concerning the effectiveness of establishing security interests over the assets of the debtor of parallel debt. In the above cases, the Supreme Court has not challenged the validity of a foreign law parallel debt structure, however, such structure was only indirectly referred to in the above judgments. As there is no doctrine of “precedence” under Polish law, uncertainty exists as to validity and enforceability of the parallel debt under Polish law.

As Polish law does not recognize the concept of “trust” or “trustee”, it is uncertain how the Security Agent will be treated by a Polish court.

CZECH REPUBLIC

One of the Guarantors is a private limited liability company (*společnost s ručením omezeným*) incorporated under the laws of the Czech Republic (the “**Czech Guarantor**”). Consequently, in the event of insolvency of the Czech Guarantor, insolvency proceedings may be initiated in the Czech Republic, and would then be governed by Czech Insolvency laws.

In principle, insolvency proceedings with respect to a Czech company should be based on the Czech insolvency laws. Nevertheless, under the EU Insolvency Regulation, where a Czech company conducts business in another Member State of the European Union, the jurisdiction of the Czech courts may be limited if the company’s “centre of main interests” is found to be in a Member State other than the Czech Republic.

Insolvency Proceedings

Under the Act No. 182/2006 Coll., the Insolvency Act, as amended (the “**Czech Insolvency Act**”), insolvency proceedings can be initiated either by the debtor (Czech Guarantor) or by any of its creditors in the event of the insolvency (*úpadek*) in the form of the over-indebtedness (*předlužení*) of the debtor or inability to meet the debtor’s obligations (*platební neschopnost*). A debtor is insolvent in the form of inability to meet its obligations if it has at least two creditors and has monetary obligations more than 30 days after their due date which it is unable to satisfy. A debtor is deemed unable to pay its monetary obligations if (i) it has suspended payments of a substantial portion of its monetary obligations, (ii) it is in default with payment of its monetary obligations for more than three months, (iii) it is not possible to satisfy some of the due receivables against the debtor by means of a court enforcement of decisions (*výkon rozhodnutí*) or distraint (*exekuce*), or (iv) the debtor fails to submit to the relevant Czech court solving the debtor’s insolvency requested lists of its assets, obligations and employees. However, the debtor who is an

entrepreneur and keeps accounting books is deemed able to fulfill its monetary obligations if (i) the difference between its due monetary obligations and its disposable resources (the “gap coverage”) as stated in the report on its cash position amounts to less than one tenth of its due monetary obligations or if (ii) the report on development of its cash projection evidences that the gap coverage will descend below one tenth of its due monetary obligations during the period of that projection. Both reports are to be prepared by an auditor, expert or other certified consultant in line with the requirements by applicable laws.

A debtor is over-indebted if it has at least two creditors and its total liabilities exceed the value of its assets (taking into account further administration of the debtor’s assets and/or further operation of its business if it is likely that the debtor will be able to further administer its assets and/or conduct its business). However, since there is no clear guidance as how to calculate the value of a debtor’s assets, in some cases it may be rather difficult to determine whether the debtor meets the over-indebtedness criterion and the views of the debtor and its creditors may vary in this regard.

In addition, the debtor may also file an insolvency petition in case of imminent insolvency (*hrozící úpadek*), i.e., if it may be reasonably expected with regard to all circumstances that the debtor will not be able to perform a substantial part of its monetary obligations duly and on time.

Insolvency proceedings are commenced upon the entitled person filing the insolvency petition (*insolvenční návrh*) to the relevant insolvency court, which is then published by the court in the publicly available insolvency register. The insolvency court is allowed to postpone the publication of the insolvency petition immediately after its filing if it has been filed by debtor’s creditor and the court doubts reasonably the legitimacy of such petition until the final decision about its legitimacy has become effective. The most substantial effects of the commencement of the insolvency proceedings in respect of a debtor are the following:

- the debtor’s creditors may not seek their claims or other rights concerning the insolvency estate by a legal action (*žaloba*) if they can lodge their claims in the insolvency proceedings by means of a lodgment of claims (*přihláška pohledávky*);
- a security interest relating to the assets owned by the debtor or other assets belonging to the insolvency estate may be created or realized (*uplatnit*) only pursuant to the statutory conditions of the Czech Insolvency Act;
- court enforcement of decisions or distraint that would affect the assets owned by the debtor or other assets belonging to the insolvency estate may be ordered, but may not be generally performed; and
- the debtor is generally prohibited from making disposals of the insolvency estate and assets which may belong to it if it might substantially change the structure, use or determination of such assets or which might cause a non-negligible reduction of such assets.

The relevant insolvency court is entitled to order protective measures to secure the property of the debtor before it issues its decision on the debtor’s insolvency.

Furthermore, no later than within seven days (in case of an insolvency petition filed by the debtor) after the filing of the insolvency petition or within 15 days (in case of an insolvency petition filed by the debtor’s creditor) after the delivery of the insolvency petition by the insolvency court, the debtor may file a petition for a moratorium with the insolvency court unless the debtor is being liquidated. However, the written consent of the majority of its creditors (counted on the basis of the amount of claims of the respective creditors) and the latest financial statements of the debtor must be attached to such a petition for a moratorium. The court may declare a moratorium of up to three months. The duration of the moratorium may be further prolonged by the court upon the debtor’s request with the updated list of obligations and with the written consent of the majority of its creditors (counted on the basis of the amount of claims of the respective creditors) for another 30 days.

Depending on the method of resolution of the debtor’s insolvency, the creditors who have submitted their claim in the insolvency proceedings have different rights and possibilities to influence the insolvency proceedings. This is effectuated via the creditors’ bodies:

- the assembly of creditors (*schůze věřitelů*); and
- the committee of creditors (*věřitelský výbor*) or representative of creditors (*zástupce věřitelů*).

The assembly of creditors comprises all creditors who have submitted their claims in the insolvency proceedings. The competence of the assembly of creditors includes, among other things, replacement of the court-appointed insolvency administrator with an insolvency administrator appointed by the assembly of creditors, election of the committee of creditors (representative of creditors) and decision on the method of resolution of the debtor's insolvency. Furthermore, the assembly of creditors may in principle reserve for itself any matter that falls within the competence of the creditors' bodies. Those creditors who are persons related to the debtor (*osoba blízká*) or persons belonging to the same group of companies (*koncern*) as the debtor are not allowed to vote at the meeting of the assembly of creditors (besides few exceptions stated in the Czech Insolvency Act).

The committee of creditors supervises the activity of the insolvency administrator, grants its consent to the conclusion of debtor-in-possession financing agreements (*úvěrové financování*) to the debtor or the insolvency administrator (as applicable), is entitled to make proposals to the insolvency court relating to the course of the insolvency proceedings, etc. The committee of creditors comprises at least 3 and at most 7 members; the number depends on the resolution of the assembly of creditors. In the event that not more than 50 creditors have lodged their claims in the insolvency proceedings or if the method of resolving the insolvency is negligible bankruptcy (*nepatrný konkurs*), the assembly of creditors is not obligated to elect the committee of creditors and may instead elect a representative of creditors and his/her substitute. If the number of members of the committee of creditors falls below 3 or below the majority, the scope of the committee of creditors is exercised by the insolvency court itself until the confirmation of the new election or the additional election of the members of the committee of creditors.

The Czech Insolvency Act provides for different priorities of claims. Generally, the claims lodged in the insolvency proceedings are subject to formal review process conducted in front of the insolvency court (*přezkumné jednání*) where each of the insolvency administrator, the debtor and other creditors who have lodged their claims may challenge the existence (validity) or the amount of a claim registered by a creditor as well the existence (validity) of the security interest securing the claim. Should the claim be challenged, an incidental dispute within the insolvency proceedings is commenced that will be decided by the insolvency court. If the challenge is successful, the claim, the amount thereof or the security interest will not be ascertained in the insolvency proceedings. Moreover, that creditor may face severe monetary penalties as set forth by the Czech Insolvency Act.

The insolvency court is obliged to take steps leading to the decision on the insolvency of the debtor within 10 days after the filing of the insolvency petition. In case of the insolvency petition submitted by the debtor, the insolvency court is obliged to decide on the petition 15 days after the submission thereof at the latest. If the debtor's insolvency or imminent insolvency is evidenced or proven in the insolvency proceedings, the court shall issue a decision declaring the debtor's insolvency. In this decision, the court, among other things, (i) appoints an insolvency administrator (*insolvenční správce*) which is to dispose of the debtor's assets to the extent to which the debtor is prohibited from doing so, (ii) requests the creditors which have not yet lodged their claims to do so within a time period of 2 months and (iii) request the debtor to file a list of his estate and all his debtors and creditors. The court however may not issue a decision declaring the debtor's insolvency during the moratorium.

Should the insolvency petition be filed by a creditor, then such a creditor (besides few exceptions stated in the Czech Insolvency Act) is obliged to pay the deposit covering costs of insolvency proceedings in amount of CZK50,000.00 (in case of the debtor being a legal person—entrepreneur) or CZK10,000.00 (in all other cases). As an expression of the electronisation process of the insolvency proceedings the petition must be filed by electronic means. Also the communication towards the majority of parties in the insolvency proceeding, is made generally only by a public notice made by the insolvency court published in the online insolvency register.

Furthermore, the creditor filing the insolvency petition has to prove that he has a due and payable claim against the debtor, and has to attach to the petition an application for registration of the claim. If the petitioner is a legal entity that keeps books of accounts or tax records, it is in principle obliged to substantiate the claim by means of the debtor's acknowledgment of debt with authenticated signature, or by means of an enforceable judgment, or a notarial deed with an enforceability consent clause, or an enforcement officer's deed with an enforceability consent clause, or a confirmation by an auditor, court-appointed expert or tax adviser to the effect that the claim is reflected in the petitioner's accounting books.

The insolvency court might order on the ground of a motion submitted by another participant of the insolvency proceeding or by the insolvency administrator that the creditors who are foreign legal entities or foreigners with their usual residence abroad are obliged to deposit a security (*jistota*) to cover costs of the

insolvency proceedings or to compensate damages emerging from their participation in the insolvency proceedings to other participants. Provided these creditors fail to obey the order, their lodgment of claims shall not be taken into account. However, this rule does not apply on those creditors (i) who are citizens or foreign legal entities from a Member State of the European Union or from another state of European Economic Area, or (ii) who own a real estate in the Czech Republic with the sufficient value to ensure the aim of a security or (iii) whose home country does not require such security from Czech nationals.

Depending on the facts of the case, the insolvency court should adopt a decision on the method of resolution of the debtor's insolvency either along with the decision on the debtor's insolvency or no later than three months after the issuance of the decision on the debtor's insolvency. The Czech Insolvency Act provides for two methods of resolution of a debtor's insolvency applicable to entrepreneurs, namely bankruptcy liquidation (*konkurs*) and reorganisation (*reorganizace*).

Bankruptcy liquidation

In principle, bankruptcy liquidation procedure is a method of resolution of a debtor's insolvency in which the insolvency estate is liquidated and the claims of the creditors are generally satisfied proportionately from the proceeds of such liquidation. Accordingly, upon the declaration of bankruptcy liquidation, the right to dispose with the insolvency estate and thus the management of the debtor's enterprise is conveyed to the insolvency administrator.

A declaration of bankruptcy liquidation renders ineffective (i) all easements created in favor of creditors under strikingly disadvantageous conditions after the effects of the commencement of the insolvency proceedings occurred and (ii) security interests relating to the assets belonging to the insolvency estate created after the effects of the commencement of the insolvency proceedings occurred unless created in accordance with the strict conditions of the Czech Insolvency Act. Furthermore, executory contracts entered into by the debtor and requiring mutual performance which have not been fully performed by both the debtor and the other party to the contract (*smlouvy o vzájemném plnění*) may be generally either assumed or rescinded by the insolvency administrator.

Claims against the insolvency estate (e.g. for remuneration and reimbursement of costs of the insolvency administrator, the members of the committee of creditors and the finance office regarding tax deduction correction) and certain other claims (e.g. employment-related claims of the debtor's employees) are satisfied preferentially in their full amount at any time after the insolvency court passes a decision declaring the debtor's insolvency. In addition to that, creditors whose claims are secured (*zajištění věřitelé*) are separately satisfied in their respective rank from the achieved proceeds of sale of the asset (after deduction of the remuneration of the insolvency administrator and costs of the administration and sale, but in principle not more than 9% from the proceeds of sale of the asset) on which the security was established and are entitled to make instructions to the insolvency administrator to the course of its realization and administration. However, should a housing unit be sold during liquidation of the insolvency estate and should a person responsible for administration of the concerned house lodge a claim relating to such administration, then such a claim is to be satisfied prior to satisfaction of secured creditors' claims (up to a maximum of one tenth of the sale proceeds). Claims of unsecured creditors are satisfied *pari passu* from the proceeds of liquidation of the insolvency estate on the basis of the distribution resolution (*rozvrhové usnesení*) issued by the insolvency court. Subordinated claims and claims of debtor's shareholders arising as a result of their participation in the company may only be satisfied if all of the claims to which the insolvency proceedings relate have already been satisfied in full.

As a general rule, claims or parts thereof which were not satisfied in the insolvency proceedings do not cease to exist after the termination of the insolvency proceedings. However, the bankruptcy procedure in principle leads to the dissolution of the debtor as a legal entity, and thus the unsatisfied claims or their parts cease to exist as result of the dissolution of the legal entity.

Reorganization

In the reorganization procedure, the creditors' claims are satisfied gradually as the debtor further operates its enterprise whereas measures aiming at rescue of the debtor's business are taken pursuant to the reorganization plan (*reorganizační plán*) approved by the insolvency court. As a principle, upon the court's decision approving the reorganization becoming final and binding, the restrictions on the debtor's right to dispose with its assets expire. However, the debtor is entitled to enter into legal acts with substantial impact on the insolvency estate only with the consent of the committee of creditors.

However, the reorganization procedure is only available if all of the below mentioned conditions are satisfied:

- (a) the debtor is an entrepreneur (which is met in case of the Czech Guarantor);
- (b) the debtor is not a legal entity in liquidation, a securities trader, or an entity entitled to trade on the commodity exchange; and
- (c) the debtor's annual total net turnover for the last accounting period preceding the filing of the insolvency petition reached at least the amount of CZK50,000,000 or the debtor employs at least 50 employees in an employment relationship (*pracovní poměr*).

The condition under letter (c) does not apply if the debtor, no later than the date on which the court issued a decision declaring the debtor's insolvency, submits a reorganization plan accepted by at least half of the creditors whose claims are secured (*zajištění věřitelé*) and at least half of all unsecured creditors (*nezajištění věřitelé*) (in both cases counted on the basis of the amount of claims of the respective creditors). If the insolvency petition is filed by the debtor's creditor and the debtor submits the respective request to the insolvency court before the declaration of insolvency, the debtor may, however, submit a reorganization plan accepted by its secured and unsecured creditors as stated above within the period of up to additional thirty days following the declaration of the debtor's insolvency. The insolvency court cannot, however, order reorganization if the assembly of creditors opts for bankruptcy liquidation pursuant to the relevant provisions of the Czech Insolvency Act. Moreover, in order to finally order the reorganization plan, statutory conditions relating to the approval thereof must be fulfilled.

Hardening Periods and Voidable Transactions

In the event that insolvency proceedings with respect to the Czech Guarantor were governed by Czech law, certain transactions by the Czech Guarantor, including the provision of the Guarantee, could be potentially challenged by an insolvency administrator by means of a legal action (*žaloba*) under the rules relating to voidable transactions as set out in the Czech Insolvency Act if concluded or performed during the "hardening periods".

Generally, the insolvency administrator may challenge legal acts by means of which the debtor curtails the satisfaction of its creditors or by means of which the debtor favors certain creditors over the others (whereas the term legal act also covers omissions). In particular, the insolvency administrator may challenge the effectiveness (*účinnost*) of the following legal acts of the debtor against the insolvency administrator, the creditors and the insolvency estate:

- (a) legal acts without reasonable consideration, *i.e.*, legal acts under which the debtor undertook to provide performance for no consideration or for consideration with a usual value substantially lower than the usual value of the debtor's performance, if they were undertaken during the debtor's insolvency or which rendered the debtor insolvent (whereas in case of legal acts in favor of a person related to the debtor (*osoba blízká*) or a person belonging to the same group of companies (*koncern*) as the debtor it is up to such person to provide evidence that the legal acts were not undertaken during the debtor's insolvency);
- (b) preferential legal acts, *i.e.*, legal acts as a result of which a creditor receives a higher satisfaction than it would receive in the bankruptcy liquidation procedure to the detriment of other creditors, in case they were undertaken during the debtor's insolvency or which rendered the debtor insolvent (whereas in case of legal acts in favor of a person related to the debtor or a person belonging to the same group of companies as the debtor it is up to such person to provide evidence that the legal acts were not undertaken during the debtor's insolvency), whereas such preferential legal acts may, in particular, include legal acts:
 - by which the debtor paid its debt before it became due;
 - under which the debtor agreed upon a modification or replacement of its obligation, to its own detriment;
 - under which the debtor waived the performance of its receivable towards another debtor or otherwise agreed upon or enabled the cessation or the non- performance of its right; and
 - under which the debtor provided its assets to secure an already existing obligation (unless the security interest is established as a result of changes in the internal content of a pledged compound thing).

- (c) intentionally fraudulent legal acts, *i.e.*, legal acts by which the debtor intentionally curtails the satisfaction of a creditor provided that the other party to the legal act knew or with regard to all circumstances must have known about such debtor's intention (whereas in case of legal acts in favor of a person related to the debtor or a person belonging to the same group of companies as the debtor it is up to such person to provide evidence that the person did not know about the debtor's intention).

The insolvency administrator may, in one year period commencing from the legal effects of the court's decision on the debtor's insolvency, challenge the effectiveness of the legal acts without reasonable consideration and preferential legal acts which were taken during (i) the last three years prior to the commencement of the insolvency proceedings if they were undertaken to the benefit of a person related to the debtor or a person belonging to the same group of companies as the debtor, or (ii) in the last year preceding the commencement of the insolvency proceedings in all other cases. The effectiveness of the intentionally fraudulent legal acts may be challenged if they were undertaken during the last five years prior to the commencement of the insolvency proceedings.

In the event that the insolvency administrator successfully challenges the effectiveness of a legal act undertaken by the debtor, the persons to the benefit of which such ineffective legal act was undertaken or which benefited from the ineffective legal act are obligated to give up the performance from such legal act to the benefit of the insolvency estate.

Limitation on Enforcement of the Guarantee

In order to ensure that the Czech Guarantor does not violate the Czech rules on financial assistance or certain insolvency limitations by providing a guarantee, it is standard practice for indentures, credit agreements and guarantees to contain "limitation language" in relation to subsidiaries incorporated in the Czech Republic.

Accordingly, the Notes will be guaranteed by the Czech Guarantor subject to certain exceptions including those which if incurred, directly or indirectly, would result in the violation of financial assistance rules arising from Section 41 and 200 of Act No. 90/2012 Coll., as amended (the Act on Business Corporations).

Furthermore, the guarantees provided by the Czech Guarantor may be subject to additional limitations limiting the amount of guaranteed obligations to the extent that is economically and operationally justifiable for a Czech Guarantor. Such limitation may, without limitation to, mitigate a risk of assessment of the guarantee by the insolvency administrator as a favoring legal act.

For completeness, upon the commencement of insolvency proceedings in respect of the Czech Guarantor, creditors from the Guarantee will not be able to seek the direct enforcement of the obligations of the Czech Guarantor arising under the Guarantee and will need to submit their claim in such insolvency proceedings initiated in respect of the Czech Guarantor.

UNITED KINGDOM

Progroup Board Ltd. is incorporated in England. Provided that the place where this company (the "**English Guarantor**") conducts the administration of its interests on a regular basis and which is ascertainable by third parties is situated within England, an English court may conclude that the English Guarantor has its center of main interests, within the meaning of Regulation (EU) 2015/848 of the European Parliament and of the Council of 20 May 2015 on insolvency proceedings (recast) (the "**EU Insolvency Regulation**"), in England. On this basis, "main insolvency proceedings" (within the meaning of article 3(1) of the EU Insolvency Regulation) in respect of the English Guarantor may be commenced in England. Pursuant to the EU Insolvency Regulation, where a company incorporated under English law has its "center of main interests" in a Member State of the European Union other than the United Kingdom or Denmark, then the main insolvency proceedings for that company will be opened in the Member State in which its center of main interests is located and be subject to the laws of that Member State, subject to certain carve outs. For further information, please see "*—European Union*". Similarly, the Cross-Border Insolvency Regulations 2006, which implement the UNCITRAL Model Law on Cross-Border Insolvency in England and Wales, provide that a foreign (*i.e.* non-English) court may have jurisdiction where any English company has its center of main interests in such foreign jurisdiction, or where it has an "establishment" (being a place of operations in such foreign jurisdiction, where it carries out non-transitory economic activities with human means and assets or services). To the extent that the Cross-Border Insolvency Regulations 2006 conflict with an obligation under the EU Insolvency Regulation, the requirements of the EU Insolvency Regulation will prevail.

Following a national referendum in June 2016, the United Kingdom exercised its right pursuant to Article 50 of the Treaty on the European Union to initiate a process to withdraw from the European Union. Please note that the information contained in this section will be subject to change in light of the arrangements to be put in place to effect the United Kingdom's withdrawal from the European Union. As such arrangements have not yet been determined, this section outlines the relevant insolvency law considerations in England and Wales as of the date of this offering memorandum.

Applicable insolvency proceedings: administration and liquidation

For these purposes, the applicable insolvency regimes under English law are administration and liquidation. Administration is a flexible procedure, the primary purpose of which is the rescue of the company as a going concern (the other purposes are set out below). In contrast, liquidation will result in the winding up of the company. The English legal regime (which is principally set out in the Insolvency Act 1986, as amended (the “**UK Insolvency Act**”) and the Insolvency (England and Wales) Rules 2016 (together with the UK Insolvency Act, (the “**UK Insolvency Legislation**”)) that would apply in the event of any insolvency proceedings of the English Guarantor may not be as favorable to creditors as the insolvency laws of other jurisdictions with which creditors may be more familiar.

Formal insolvency proceedings under the laws of England and Wales may be initiated in a number of ways. The company or a creditor may apply to court for the making of an administration order in respect of the company or the company itself or certain secured creditors may appoint an administrator to the company using an out of court process. Broadly speaking (and subject to specific conditions), a company can be placed into administration at the application of, among others, the English Guarantor itself, its directors or one or more of its creditors (including contingent and prospective creditors). A holder of a qualifying floating charge over the assets of the English Guarantor also has the right to appoint an administrator. In addition, he has the right to intervene in an application made for administration proceedings by another person by nominating an alternative administrator or, in certain very specific circumstances, by blocking the appointment altogether by the appointment of an administrative receiver.

If the English Guarantor grants a “qualifying floating charge” to a party for the purposes of English insolvency law, that party will be able to appoint an administrative receiver or an administrator out of court and, in the case of the ability to appoint an administrative receiver, the qualifying floating charge must, unless the security document pre-dates September 15, 2003, fall within one of the exceptions in the UK Insolvency Act as amended by the Enterprise Act 2002 to the prohibition on the appointment of administrative receivers. In order to constitute a qualifying floating charge, the floating charge must be created by an instrument which (a) states that the relevant statutory provision applies to it; (b) purports to empower the holder to appoint an administrator of the company; or (c) purports to empower the holder to appoint an administrative receiver within the meaning given by Section 29(2) of the UK Insolvency Act. A party will be the holder of a qualifying floating charge if such floating charge security, together (if necessary) with other forms of security, relates to the whole or substantially the whole of the property of the relevant English company and at least one such security interest is a qualifying floating charge. The most relevant exception to the prohibition on the appointment of an administrative receiver is the exception relating to “capital market arrangements” (as defined in the UK Insolvency Act), which may apply if the issue of the Notes creates a debt of at least £50 million for the relevant company during the life of the arrangement and the arrangement involves the issue of a “capital markets investment” (which is defined in the UK Insolvency Act, and is generally a rated, listed or traded debt instrument, and debt instruments designed to be rated, listed or traded).

Liquidation proceedings can be opened by a creditor filing a petition with a court to wind up the company (a “compulsory winding up”) or the company's resolving to do so in a general meeting of shareholders (a “voluntary winding up”). A company may be wound up if it is unable to pay its debts, and may be placed into administration if it is, or is likely to become, unable to pay its debts, (or, in the case of an appointment by the holder of a qualifying floating charge, if the relevant charge has become enforceable) and the administration is reasonably likely to achieve one of three statutory purposes. A company is unable to pay its debts if it is insolvent either on a “cash-flow” or “balance-sheet” basis. In broad terms, a company is cash-flow insolvent if it is unable to pay its debts as they fall due; a company is balance-sheet insolvent if the value of its assets is less than the amount of its liabilities, taking into account its contingent and prospective liabilities.

The administration of a company must achieve one of the following statutory objectives: (i) the rescue of the company (as distinct from the business carried on by the company) as a going concern (the primary

objective); (ii) the achievement of a better result for the company's creditors as a whole than would be likely if the company were wound up (without first being in administration) (the second objective); or (iii) the realization of some or all of the company's property to make a distribution to one or more secured or preferential creditors (the third objective). An administrator must attempt to achieve the statutory objective of the administration process in the order set out above: unless he thinks either that it is not reasonably practicable to achieve the primary objective, or that the secondary objective would achieve a better result for the company's creditors as a whole, he must try to achieve the primary objective. Moreover, the administrator cannot pursue the third objective unless he thinks that it is not reasonably practicable to achieve either the first objective or the second objective and that it will not unnecessarily harm the interests of the creditors of the company as a whole to pursue the third objective.

Liquidation is a procedure under which the assets of the company are realized and distributed by the liquidator to creditors in the statutory order of priority prescribed by the UK Insolvency Legislation. At the end of the liquidation process, the company will normally be dissolved.

For the Holders of the Notes, indirectly benefiting from the Guarantee and security interests granted by the English Guarantor, the most important consequences of the opening of formal insolvency proceedings in England and Wales against the English Guarantor would be that:

- the appointed insolvency practitioner (an administrator or liquidator) would have the right to administer and dispose of the assets of such English Guarantor as the representative of the insolvent estate;
- in certain circumstances, an administrator or a liquidator will have powers to challenge the Guarantee and security interests granted by the English Guarantor and potentially certain intercompany obligations entered into by the English Guarantor; and
- in general terms, the Holders of the Notes could only pursue their claims against the English Guarantor in accordance with the provisions in the UK Insolvency Legislation.

The principal factors to be aware of are as follows.

Stay on proceedings

Broadly speaking, an interim moratorium comes into effect when an application for an administration order (in the case of court appointment) or a notice of intention to appoint an administrator is made and, when an administrator is appointed, a full statutory moratorium applies. Whilst there are a few exceptions, save where the court or (in the case of a full statutory moratorium) the administrator consents, that moratorium prevents creditors taking any action against the company to recover their debts including, among other things, commencing or continuing any legal process against the company, winding up the company, enforcing security or repossessing goods in the company's possession under a hire purchase or similar agreement. However, certain creditors of a company in administration may be able to realize their security over that company's property notwithstanding the statutory moratorium. This is by virtue of the disapplication of the moratorium in relation to a "security financial collateral arrangement" (generally, a charge over cash or financial instruments such as shares, bonds or tradable capital market debt instruments and credit claims) under the Financial Collateral Arrangements (No. 2) Regulations 2003 (as amended) (the "**Financial Collateral Arrangements Regulations**").

Equally, the court's making of an order for the winding-up of an English company brings into effect a stay on the commencement or continuation of any court proceedings against it (although security enforcement is not stayed). There is no automatic stay in the case of a voluntary winding up. Where a liquidation is commenced by the shareholders of an English company, the liquidator will usually apply to court for a stay on the continuation of any ongoing legal proceedings. Again though, creditors' rights to enforce their security are not affected.

Subject to the above points, were the English Guarantor to enter administration, it is possible that the security granted by it may not be enforced while it is in administration. Similarly, whilst any principal debt or guarantee obligation owed by it would be accelerated or demanded, no meaningful enforcement action could be taken in respect of any failure to pay.

Administrators may dispose of property that is subject to a floating charge without the consent of the relevant charge holder, which will have the same priority in respect of the proceeds from the disposal as it had in respect of the property disposed of. With the prior approval of the court, an administrator can dispose of property subject to a fixed charge without the consent of the relevant secured creditor, provided

that: the disposal is likely to promote the administration's purpose; and the administrator applies the net proceeds from the disposal of the property in question towards discharging the obligations of the company to the secured creditor.

Priority of claims in UK insolvency proceedings

In the liquidation of the English Guarantor or its administration (where the relevant administrator makes a distribution), the insolvent company's assets will be realized and distributed to its creditors. Creditors are placed into different classes and, with the exceptions and adjustments noted below, the proceeds from the realization of the insolvent company's property applied in a descending order of priority, as set out below. With the exception of the Prescribed Part (as defined below), distributions cannot be made to a class of creditors until the claims of the creditors in a prior ranking class have been repaid in full. Unless creditors have agreed otherwise, distributions are made on a *pari passu* basis, that is, the cash is distributed in proportion to the debts due to each creditor within a class.

The general priority of claims on insolvency is as follows (in descending order of priority):

- First ranking claims: holders of fixed charge security and creditors with a proprietary interest in specific assets in the possession (but not full legal and beneficial ownership) of the company but only to the extent of the realizations from those secured assets or with respect to the value of the asset in which they have a proprietary interest.
- Second ranking claims: expenses of the insolvent estate incurred during the relevant insolvency proceedings (there is a further statutory order of priority setting out the order in which those expenses are paid);
- Third ranking claims: preferential debt, which includes (but is not limited to) contributions to occupational and state pension schemes, employment claims (wages and salaries of employees for work done in the four months before the insolvency date, up to a maximum of £800 per person and holiday pay due to any employee whose contract has been terminated, whether the termination takes place before or after the insolvency date);
- Fourth ranking claims: holders of floating charge security to the extent of the realizations from those secured assets according to the priority of their security. However, before distributing such asset realizations to the holders of floating charges, the Prescribed Part must, subject to certain exceptions, be set aside for distribution to unsecured creditors;
- Fifth ranking claims: general
 - firstly, provable debts of unsecured creditors and secured creditors to the extent of any unsecured shortfall (these rank equally among themselves unless there are subordination agreements in place between any of them). To pay the secured creditors any unsecured shortfall, the insolvency officeholder can only use realizations from unsecured assets, as secured creditors are not entitled to any distribution from the Prescribed Part in respect of a shortfall unless the Prescribed Part is sufficient to pay out all unsecured creditors;
 - secondly, statutory interest that arises on debts after the insolvency at the higher of the applicable contractual rate and a statutory rate; and
 - thirdly, non-provable liabilities, being liabilities that do not fall within any of the categories above and which are therefore only recovered in the (unusual) event that all categories above are fully paid; and
- Sixth ranking claims: shareholders. If after the repayment of all unsecured creditors in full, any remaining funds exist, these will be distributed to the shareholders of the insolvent company, provided that it is in the process of being wound up.

It is anticipated that new legislation will, in the case of insolvencies commencing on or after April 6, 2020, confer secondary preferential creditor status on HMRC in respect of taxes collected and held by businesses on behalf of HMRC (for example, PAYE income tax and VAT).

Subject to the above order of priority, subordinated creditors will be ranked according to the terms of the subordination.

The UK Insolvency Legislation broadly provides that in a liquidation of a company, where the assets available for payment of its general creditors (excluding any amount ring-fenced for unsecured debts as

described above) are not sufficient to meet the liquidation expenses, certain specified liquidation expenses can be claimed out of the realization proceeds of assets subject to a floating charge and, for these purposes, rank ahead of preferential debts and floating chargees' claims.

In the case of litigation expenses exceeding £5,000, this is subject to rules restricting the application of this provision to certain litigation expenses approved by the floating chargee and any preferential creditors or the court. Consequently, realizations by secured creditors upon the enforcement of floating charges securing any principal or guarantee obligation to the Holders could potentially be reduced by the amount of any liquidation expenses. If any fixed security is validly created, any claims of creditors holding such fixed security would rank ahead of any such liquidation expenses. The creditors holding the security would, however, pay the expenses of realizing their security directly to the liquidator or other person (such as a receiver or security trustee) who disposed of the secured assets on their behalf.

Broadly speaking, expenses that qualify as expenses of the administration (and which include, among others, expenses properly incurred by the administrator in performing his functions in the administration and necessary disbursements incurred in the course of the administration) enjoy priority status, in a similar way to liquidation expenses (as described above) although the categories of expenses are slightly different. In particular, expenses of the administration can be claimed out of the realization proceeds of assets subject to a floating charge and, for these purposes, rank ahead of preferential debts and floating chargees' claims.

Prescribed Part

An administrator, receiver (including administrative receiver) or liquidator of an insolvent company will generally be required to ring-fence a certain percentage of the proceeds of enforcement of assets subject to floating charge security for the benefit of the company's unsecured creditors (the "**Prescribed Part**"). Under current law, this applies to 50% of the first £10,000 of floating charge realizations and 20% of the remainder over £10,000, and the Prescribed Part is subject to a maximum aggregate cap of £600,000. The Prescribed Part must be made available to unsecured creditors unless the cost of doing so would be disproportionate to the resulting benefit to creditors. The Prescribed Part will not be available to satisfy any shortfall claims of secured creditors unless the Prescribed Part is sufficient to pay out all unsecured creditors. Whether the assets that are subject to the floating charges and other security will constitute substantially the whole of the English Guarantor's assets at the time that the floating charges are enforced will be a question of fact at that time.

Recharacterization of fixed security interests

There is a possibility that a court could find that the fixed security interests expressed to be created by the security documents governed by English law properly take effect as floating charges as the description given to them as fixed charges is not determinative. Whether the purported fixed security interests will be upheld as fixed security interests rather than floating security interests will depend, among other things, on whether the secured party has the requisite degree of control over the English Guarantor's ability to deal in the relevant assets and the proceeds thereof and, if so, whether such control is exercised by the holder of the security in practice. Where the English Guarantor is free to deal with the assets that are the subject of a purported fixed charge in its discretion and without the consent of the chargee, the court would be likely to hold that the security interest in question constitutes a floating charge, notwithstanding that it may be described as a fixed charge.

While recharacterization is a risk for all attempts to create fixed security, it is a particular risk in relation to attempts to create fixed security over receivables. This is because even if a company purports to grant fixed security over its receivables, it will likely retain, in practice, the ability to deal with its receivables in its discretion and without the consent of the chargee. If any fixed security interests are recharacterized as floating security interests, the claims of (i) any unsecured creditors of the English Guarantor in respect of that part of the English Guarantor's net property which is ring fenced (see explanation about ring fencing under "**Prescribed Part**" above); and (ii) certain statutorily defined preferential creditors of the English Guarantor may have priority over the rights of the Security Agent to the proceeds of enforcement of such security. In addition, as mentioned above, the expenses of a liquidation or administration would also rank ahead of the claims of the Security Agent as floating charge holder.

Challenges to Guarantees and Collateral

There are circumstances under English insolvency law in which the granting by an English company of a guarantee or security interest can be challenged. In most cases this will only arise if an administrator or liquidator is appointed to the company within a specified period (as set forth in more detail below) of the granting of the guarantee or security interest and, in addition, if the company was “unable to pay its debts” when the guarantee or security interest was granted or became “unable to pay its debts” as a result of granting the guarantee or security interest. A company will be “unable to pay its debts” if it is proved to the court’s satisfaction that the company is not able to pay its debts as they fall due or that the value of the company’s assets is less than the amount of its liabilities (taking into account its contingent and prospective liabilities). Such insolvency is presumed if, among other matters, a statutory demand for over £750 is served on the company and remains unsatisfied for three weeks or the company has failed to secure or compound for it to the reasonable satisfaction of the relevant creditor within such period, or if any execution against or other court process issued in respect of a court judgment debt in favor of a creditor is returned unsatisfied in whole or in part. If the Guarantee or any security interest granted by the English Guarantor is challenged under the laws of England and Wales, and the court makes certain findings (as described further below), the court may:

- avoid or invalidate all or a portion of the English Guarantor’s obligations under the Guarantee or security interests provided by it;
- direct that the Holders of the Notes return any amounts paid to them by the English Guarantor under the Guarantee, either directly to the English Guarantor or to a fund for the benefit of the English Guarantor’s creditors generally; and/or
- take other action that may be detrimental to the Holders of the Notes.

The following potential grounds of challenge may apply to the Guarantee and/or security interests given by the English Guarantor under the UK Insolvency Act:

Transaction at an Undervalue

Under English insolvency law, a liquidator or administrator of a company could apply to the court for an order to set aside a guarantee granted or Collateral provided by the company (or give other relief) on the grounds that the creation of such guarantee or provision of Collateral constituted a transaction at an undervalue. The grant of a guarantee or provision of Collateral will only be a transaction at an undervalue if the company either receives no consideration in return for the guarantee or provision of Collateral, or receives consideration of significantly less value, in money or money’s worth, than the consideration given by it. For a challenge to be made, the guarantee must be granted or the Collateral must be provided within a period of two years ending with the onset of the company’s insolvency (as defined in section 240 of the UK Insolvency Act). The onset of insolvency is the date on which the first of the following occurs: an administrator is appointed, an application for an administration order is made to court, notice of intention to appoint an administrator through an out of court process is filed at court, a winding up petition is presented at court or a shareholders’ resolution to wind up is passed.

In addition the company must either be “unable to pay its debts” when it grants the guarantee or provides the Collateral or become “unable to pay its debts” as a result. Even if these tests are satisfied, a court will not make an order in respect of a transaction at an undervalue if it is satisfied that the company entered into the transaction in good faith and for the purpose of carrying on its business and that, at the time it did so, there were reasonable grounds for believing the transaction would benefit the company. Subject to this, if the court determines that the transaction was a transaction at an undervalue, it will make such order as it thinks fit to restore the position to what it would have been if the transaction had not been entered into (which could include reducing payments under the relevant guarantee or setting it or the provision of Collateral aside). In any challenge proceedings, it is for the administrator or liquidator to demonstrate that the English company was unable to pay its debts unless a beneficiary of the transaction is a “connected person” of the English company (as defined in the UK Insolvency Act), in which case there is a presumption that the company was unable to pay its debts at the relevant time and the connected person must demonstrate that the company was in fact solvent.

Preference

Under English insolvency law, a liquidator or administrator of a company could apply to the court for an order to set aside a guarantee or security interest granted by such company (or give other relief) on the

grounds that such guarantee or security interest constituted a preference. The grant of a guarantee or security interest will be a preference if it has the effect of placing a creditor (or a surety or guarantor of the company) in a better position in the event of the company's insolvent liquidation than if the guarantee or security interest had not been granted. The company must either have been unable to pay its debts at the time of the transaction or become so unable as a result of the transaction. A challenge can only be made if the guarantee or security interest was granted within the period of (i) six months ending with the onset of insolvency (as defined in section 240 of the UK Insolvency Act—see above) if the beneficiary of the guarantee or security interest is not a connected person or (ii) if the beneficiary is a connected person of the English company, two years ending with the onset of insolvency. A court should not make an order that a preference has been granted unless it is satisfied the company was influenced in deciding to enter into the relevant transaction by a desire to put the relevant creditor in a better position in the event of the company's liquidation. Case law suggests there must be a desire to prefer one creditor over another and not just other commercial motives even if they had the inevitable result of producing the better position. Moreover, a company can only grant a preference to an existing creditor. If the Holders of the Notes only become creditors of the English Guarantor at the same time as they subscribe for the Notes and become creditors of the Issuer and it is a condition of their subscribing for the Notes that such guarantees or security interest are granted, it is very unlikely that any question of preference should arise. Subject to this, if the court determines that the transaction was a preference, it will make such order as it thinks fit to restore the position to what it would have been if that preference had not been given (which could include reducing payments under the guarantees or setting them or any security interests aside). In any proceedings, it is for the administrator or liquidator to demonstrate that the English company was unable to pay its debts and that the company was influenced by a desire to produce the preferential effect, unless the beneficiary of the transaction was a connected person, in which case there is a presumption that the company was influenced by a desire to produce the preferential effect and the connected person must demonstrate in such proceedings that there was in fact no such influence.

Transaction Defrauding Creditors

Under English insolvency law, a liquidator or an administrator of a company, or a person who is a victim of the relevant transaction (with leave of the court if the company is in liquidation and a moratorium on creditor action is in place with respect to that company, or if the company is in administration), could apply to the court for an order to set aside a guarantee or Collateral on the grounds that the guarantee or provision of Collateral was a transaction defrauding creditors. A transaction will constitute a transaction defrauding creditors if it satisfies the criteria for being a transaction at an undervalue (see above) and the court is satisfied that the substantial purpose of the company in entering into the transaction was to put assets beyond the reach of actual or potential claimants against the company or to prejudice the interests of such persons in relation to their actual or potential claim.

If the court determines the transaction was a transaction defrauding creditors, it may make such order as it sees fit to restore the position to what it would have been if the transaction had not been entered into or protect the interests of the victims of the transaction (including reducing payments under the guarantee or setting it or the Collateral aside). Such an order may not prejudice any interest in property that was acquired from a third party in good faith, for value and without notice of the relevant circumstances or require a third party who received a benefit from the relevant transaction that acted in good faith, for value and without notice of the relevant circumstances to pay any sum, unless he was a party to the relevant transaction. Any "victim" of the transaction may (with the leave of the court if the company is in liquidation or administration) apply to court under this provision and not just the liquidator or administrator of the relevant company. There is no time limit in the English insolvency legislation within which the company must enter insolvency proceedings for this ground of challenge to be available (although general statutory limitation periods will apply) and the relevant company does not need to be unable to pay its debts at the time or as a result of the relevant transaction for a challenge under this head of claim to be made out.

Extortionate credit transactions

Under English insolvency law, a liquidator or an administrator of a company could apply to court to set aside an extortionate credit transaction. The court can review extortionate credit transactions entered into by the English Guarantor up to three years before the day on which the English Guarantor entered into administration or went into liquidation. A transaction is "extortionate" if, having regard to the risk accepted by the person providing the credit, the terms of it are (or were) such as to require grossly

exorbitant payments to be made (whether unconditionally or in certain contingencies) in respect of the provision of the credit or it otherwise grossly contravened ordinary principles of fair dealing.

Floating charges capable of being set aside

The UK Insolvency Act provides that, in certain circumstances, a floating charge granted by an English company during the “relevant time” will be invalid, except to the extent of the value of: (a) the money paid to; (b) the goods or services supplied to; or (c) any discharge or reduction of any debt of, the relevant English company at the same time as or after the creation of the floating charge (plus certain interest) (the “**Consideration**”). In the case of a floating charge which is created in favor of a person that is not connected to the English Guarantor, the relevant time is deemed to be the period of 12 months ending with the onset of the English Guarantor’s insolvency provided that at the time the charge was granted the English Guarantor was unable to pay its debts or became unable to pay its debts as a result of the transaction in respect of which the floating charge was granted.

If the floating charge is created in favor of a person connected to the English Guarantor, the relevant look back time is a period of two years ending with the onset of insolvency and there is no requirement that at the time the charge was granted the English Guarantor was unable to pay its debts or became unable to pay its debts as a result of the transaction in respect of which the floating charge was granted.

Accordingly, in the event that the English Guarantor becomes unable to pay its debts within a period of up to two years of the issuance of the Notes, any floating charge created during the relevant time period will be automatically invalid, except to the value of the Consideration. An administrator or liquidator (as applicable) will not need to apply to court for an order declaring that a floating charge is invalid by operation of law. However, if the floating charge qualifies as a “security financial collateral arrangement” under the Financial Collateral Arrangements Regulations, the floating charge will not be void as described in this paragraph.

Dispositions after Winding-Up

Any disposition of the English company’s property which is made after the compulsory winding-up of the company has commenced is void, unless the court orders otherwise. The compulsory winding-up of a company is deemed to start when a winding-up petition is presented by a creditor against the company, rather than the date on which the court makes the winding-up order (if any).

If a company is the subject of (i) a statutory moratorium as a result of either entering administration or (ii) the small companies moratorium, and either (x) the holder of security created by that company (other than financial collateral as above described) consents or (y) if the court gives leave, the relevant company or its administrator may dispose of the secured property as if it were not subject to the security. In addition, an administrator can dispose of assets subject to a floating charge without seeking the consent of the chargeholder or the leave of the court. Where the property in question is subject to a security which was created as a floating charge, the chargee will have the same priority in respect of any property of the company directly or indirectly representing the property disposed of as he would have had in respect of the property subject to the security. Where the security in question is other than a floating charge, it shall be a condition of the chargee’s consent or the leave of the court that the net proceeds of the disposal shall be applied towards discharging the sums secured by the security.

Equitable share charge

The fixed charges over shares in companies incorporated in England and Wales granted by a Guarantor are equitable charges, not legal charges. An equitable charge arises where a chargor transfers the beneficial interest in the shares to the chargee but retains legal title to the shares. Remedies in relation to equitable charges may be subject to equitable considerations or are otherwise at the discretion of the court.

Foreign Currency

Under English insolvency law, where creditors are asked to submit formal proofs of claim for their debts, any debt of a company payable in a currency other than British pounds (such as euros in the case of the Notes) must be converted into British pounds at a single rate for each currency determined by the office-holder by reference to the exchange rates prevailing at the relevant date. If a creditor considers the rate to be unreasonable, they may apply to the court.

Account banks' right to set-off

With respect to the charges over cash deposits (each an “**Account Charge**”) granted by the English Guarantor over any of its bank accounts, the banks with which some of those accounts are held (each an “**Account Bank**”) may hold a right at any time (at least prior to them being notified of a crystallization event under the Account Charge) to exercise the rights of netting or set-off to which they are entitled under their cash pooling or other arrangements with that English Guarantor. As a result, and if the security granted over those accounts is merely a floating (rather than fixed) charge, the collateral constituted by those bank accounts will be subject to the relevant Account Bank's rights to exercise netting and set-off with respect to the bank accounts charged under the relevant Account Charge. Once the floating charge has crystallized and converted into a fixed charge (as it would on enforcement or the occurrence of certain insolvency events with respect to the relevant English Chargor) and the Account Bank has been formally notified of that fact, the collateral will no longer be subject to the relevant Account Bank's netting and set-off rights, since the Account Bank will only be entitled to exercise its netting and set-off rights until such time as it is informed that the beneficial interest in the debt represented by the account credit balance has been transferred to a third party.

Limitations on Validity and Enforceability of Notes Guarantees and Collateral

Independent of provisions of UK insolvency law, the grant of a Guarantee and provision of Collateral by the English Guarantor in respect of the obligations of another group company must satisfy certain legal requirements. More specifically, such a transaction must be allowed by the company's memorandum and articles of association. To the extent that the above do not allow such an action, there is the risk that the grant of the Guarantee or provision of Collateral can be found to be void and the respective creditor's rights unenforceable. Some comfort may be obtained for third parties if they are dealing with the company in good faith, however the relevant legislation is not without difficulties in its interpretation. Further, corporate benefit must be established for the company in question by virtue of entering into the proposed transaction. Section 172 of the Companies Act 2006 provides that a director must act in the way that he considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole. If the directors enter into a transaction where there is no or insufficient commercial benefit, they may be found as abusing their powers as directors and such a transaction may vulnerable to being set aside by a court.

Schemes of Arrangement

Pursuant to Part 26 of the Companies Act 2006, the English courts have jurisdiction to sanction a compromise or arrangement between a company and its creditors (or classes of creditors) where such company is liable to be wound-up under the UK Insolvency Act. In order for a scheme of arrangement proposed by a non-UK company to be sanctioned by the English courts, the relevant company must also have a “sufficient connection” to the English jurisdiction.

In previous cases, a sufficient connection has been found to be satisfied by the English courts where, among other things: the relevant company has assets situated in England or carries on business there; its “center of main interests” is in England; and/or it owes liabilities to creditors based in England or under agreements governed by English law. Ultimately, each case will be considered on its particular facts and circumstances so previous cases will not necessarily determine whether or not any of the grounds of the second limb are satisfied in the present case.

Before the court considers the sanction of a scheme of arrangement, affected creditors will vote at a creditors' meeting on the proposed compromise or arrangement in a single class or in a number of classes, depending on the rights of such creditors that will be affected by the proposed scheme and any new rights that such creditors are to be granted under the scheme. Such compromise can be proposed by the company or its creditors. The scheme will be passed at the creditors' meeting if a majority in number representing 75% or more in value of those creditors present and voting at each of the creditors' meeting(s) vote in favor of the proposed scheme, irrespective of the terms and approval thresholds contained in the finance documents, and that scheme will (subject to the sanction of the court) be binding on all affected creditors, including those affected creditors who did not participate in the vote on the scheme and those who voted against the scheme. The scheme then needs to be sanctioned by the court at a sanction hearing where the court will review the fairness of the scheme and consider whether it is reasonable. The court has the discretion as to whether to sanction the scheme as approved, make an order conditional upon modifications being made to the scheme or reject the scheme.

Company Voluntary Arrangements

Pursuant to Part I of the UK Insolvency Act, a company (by its directors or its administrator as applicable) may propose a company voluntary arrangement to the company's shareholders and creditors which entails a compromise of the company's unsecured debts. The company may propose whatever compromise they consider appropriate in accordance with the duties of the directors or administrator (as applicable) and, provided that compromise is approved by the requisite majority of creditors, it will bind all unsecured creditors of the company who were entitled to vote or would have been entitled to vote had they had notice of the meeting.

In order for the company voluntary arrangement to be passed, it must be approved by both: (a) 75% or more in value of the creditors present and voting at the creditors' meeting called to approve the arrangement; and (b) 50% in value of the creditors that are unconnected with the company.

Small Companies Moratorium

Certain "small companies" may, for the purposes of putting together proposals for a company voluntary arrangement, seek court protection from their creditors by way of a moratorium for a period of up to 28 days, with the option for creditors to extend this protection for up to a further two months (although the Secretary of State may, by order, extend or reduce the duration of either period). A "small company" is defined for these purposes by reference to whether the company meets certain criteria relating to a company's balance sheet, total turnover and average number of employees in a particular period (although the Secretary of State may, by order, modify the moratorium eligibility qualifications and the definition of a "small company"). The position as to whether or not a company is a "small company" may change from financial period to financial period, depending on its financial position and average number of employees during that particular period. Accordingly, the English Guarantor may, at any given time, come within the ambit of the "small companies" provisions, such that the English Guarantor may (subject to the exemptions referred to below) be eligible to seek a moratorium, in advance of a company voluntary arrangement.

During the period for which a moratorium is in force in relation to a small company, among other things, no winding up may be commenced (except in very limited circumstances, for example where the Secretary of State considers it to be in the public interest to do so) or administrator or administrative receiver appointed to that company, no security created by that company over its property may be enforced (except (i) with the leave of the court or (ii) in the case of existence of eligible financial collateral arrangements under the Financial Collateral Arrangements Regulations whereby the requirement to get a court order before enforcing security over small companies will not apply), no other proceedings or legal process may be commenced or continued in relation to that company (except with the leave of the court) and the company's ability to make payments in respect of debts and liabilities existing at the date of the filing for the moratorium is curtailed. Certain small companies may, however, be excluded from being eligible for a moratorium (although the Secretary of State may, by regulations, modify such exclusions). This moratorium is also not available to companies which have entered into certain capital market arrangements (whereby the company has incurred or is expected to incur a debt of at least £10 million and the arrangement involves the issue of a capital market investment) as detailed in Schedule A1 to the UK Insolvency Act. The definitions of "capital market arrangement" and "capital market investment" are broad and are such that, in general terms, any company which is a party to an arrangement which involves at least £10 million of debt, the granting of security to a trustee, and the issue of a rated, listed or traded debt instrument, is excluded from being eligible for this small companies moratorium.

TAXATION

CERTAIN GERMAN TAX CONSIDERATIONS

The following is a general discussion of certain German tax consequences of the acquisition, holding and disposal of the Additional Notes. It does not purport to be a comprehensive description of all German tax considerations that may be relevant to a decision to purchase Additional Notes, and, in particular, does not consider any specific facts or circumstances that may apply to a particular purchaser. This summary is based on the tax laws of Germany currently in force and as applied on the date of this offering memorandum, which are subject to change, possibly with retroactive or retrospective effect.

The law as currently in effect provides for a flat tax rate (flat tax regime; Abgeltungsteuer) for certain investment income and, in particular, interest income. There is an ongoing discussion in Germany whether the reduced tax rate should be increased or abolished so that investment income would be taxed at higher rates. It is still unclear whether, how and when the current discussion may result in any legislative changes.

Prospective purchasers of the Additional Notes are advised to consult their own tax advisors as to the tax consequences of the purchase, ownership and disposal of the Additional Notes, including the effect of any state, local or church taxes, under the tax laws of Germany and any country of which they are resident or whose tax laws apply to them for other reasons.

Withholding Tax

Ongoing payments, such as interest payments, received by an individual holder of the Additional Notes will be subject to German withholding tax (*Kapitalertragsteuer*) if the Additional Notes are kept or administered in a custodial account with a German financial institution (*i.e.*, a bank, a financial services institution, a securities trading company or a securities trading bank (each, a “**Disbursing Agent**”, *auszahlende Stelle*)). The term German financial institution includes a German branch of a foreign financial institution but not a foreign branch of a German financial institution. The withholding tax rate is 25% (plus solidarity surcharge at a rate of 5.5% thereon, the total withholding being 26.375%). If the individual holder is subject to church tax, a church tax surcharge will also be withheld. The church tax surcharge is automatically withheld by the Disbursing Agent, unless the holder notifies the Federal Central Tax Office (*Bundeszentralamt für Steuern*) that it objects to automatic withholding. In this case, the holder will be assessed to church tax (if applicable).

The same treatment applies to capital gains (*i.e.*, the difference between the proceeds from the disposal, redemption, repayment or assignment after deduction of expenses directly related to the disposal, redemption, repayment or assignment and the cost of acquisition) and interest accrued on the Additional Notes (“**Accrued Interest**”, *Stückzinsen*) derived by an individual holder irrespective of any holding period provided the Additional Notes have been held in a custodial account with the same Disbursing Agent since the time of their acquisition. If Additional Notes held or managed in the same custodial account were acquired at different points in time, the Additional Notes first acquired will be deemed to have been sold first for the purposes of determining any capital gains. The separation of interest claims from the Additional Notes is treated as disposition of the Additional Notes at their fair market value which has to be apportioned to the capital and the interest strips. If interest claims or interest coupons are disposed of separately (*i.e.*, without the Additional Notes), the proceeds from the disposition are subject to withholding tax. The same applies to proceeds from the redemption or collection of interest claims or interest coupons if the Additional Notes have been disposed of separately.

To the extent that the Additional Notes have not been kept in a custodial account with the same Disbursing Agent since the time of their acquisition, upon the disposal, redemption, repayment or assignment withholding tax applies at a rate of 25% (plus solidarity surcharge at a rate of 5.5% thereon, the total withholding being 26.375%, plus church tax, if applicable) on 30% of the disposal proceeds (including interest accrued on the Additional Notes (“**Accrued Interest**”, *Stückzinsen*), if any), unless the current Disbursing Agent has been provided with evidence of the actual acquisition costs of the Additional Notes by the previous Disbursing Agent or by a statement of a bank or financial services institution within the European Union, the European Economic Area or certain other countries, *e.g.*, Switzerland.

In computing any German withholding tax, the Disbursing Agent may generally deduct from the basis of the withholding tax negative investment income realized by the individual holder of the Additional Notes via the Disbursing Agent (*e.g.*, losses from the sale of other securities with the exception of shares). The Disbursing Agent may also deduct Accrued Interest on the Additional Notes or other securities paid separately upon the acquisition of the respective security via the Disbursing Agent. In addition, subject to

certain requirements and restrictions, the Disbursing Agent may credit foreign withholding taxes levied on investment income in a given year regarding securities held by the individual holder in the custodial account with the Disbursing Agent.

Upon the individual holder filing an exemption certificate (*Freistellungsauftrag*) with the Disbursing Agent, the Disbursing Agent will take a maximum annual allowance (*Sparer-Pauschbetrag*) of €801 (€1,602 for married couples and for partners in accordance with the registered partnership law (*Gesetz über die Eingetragene Lebenspartnerschaft*) filing jointly) into account when computing the amount of tax to be withheld from the gross payment to be made by the Disbursing Agent. No withholding tax will be deducted if the holder of the Additional Notes has submitted to the Disbursing Agent a certificate of non assessment (*Nichtveranlagungsbescheinigung*) issued by the competent tax office.

German withholding tax will generally not apply to gains from the disposal, redemption, repayment or assignment of Additional Notes held by a corporate holder who is a German tax resident (including via a commercial partnership, as the case may be, and provided that in the case of corporations of certain legal forms the status of corporation has been evidenced by a certificate of the competent tax office) while ongoing payments, such as interest payments, are generally subject to withholding tax (irrespective of any deductions of foreign tax and losses incurred). The same applies where the Additional Notes form part of a German trade or business (of an individual or a commercial partnership) subject to further requirements being met.

Interest and capital gains on the Additional Notes received by non-residents of Germany are, in general, not subject to German withholding tax or the solidarity surcharge thereon. However, where the interest or capital gain is subject to German taxation (as set forth under “—Taxation of Current Income and Capital Gains—Non Tax Residents”) and the Additional Notes are held in a custodial account with a Disbursing Agent, withholding tax will be levied under certain circumstances. The withholding tax may be refunded based on an assessment to tax or under an applicable double taxation treaty (*Doppelbesteuerungsabkommen*).

Taxation of Current Income and Capital Gains

Tax Residents

This subsection “—Tax Residents” refers to persons who are tax residents of Germany (*i.e.*, persons whose residence, habitual abode, statutory seat, or place of effective management is located in Germany).

Income (*i.e.* interest and capital gains) derived under the Additional Notes held by an individual holder who is tax resident in Germany, irrespective of any holding period, is in general subject to German income tax at a flat tax rate of 25% (plus solidarity surcharge and church tax, if applicable, thereon) (*Abgeltungsteuer*) if the Additional Notes are held as private investment (*Privatvermögen*). Individual holders who are tax resident in Germany are entitled to a maximum annual allowance (*Sparer-Pauschbetrag*) of €801 (€1,602 for married couples and for partners in accordance with the registered partnership law (*Gesetz über die Eingetragene Lebenspartnerschaft*) filing jointly), whereby actually incurred higher expenses directly attributable to a capital investment are not deductible.

The personal income tax liability of an individual holder who is a tax resident in Germany on income from capital investments under the Additional Notes will, in principle, be satisfied by the tax withheld. To the extent withholding tax has not been levied, such as in the case no Disbursing Agent being involved in the payment process, the individual holder must include his or her income and capital gains derived from the Additional Notes in his or her tax return and will then also be taxed at a rate of 25% (plus solidarity surcharge and, where applicable, church tax thereon). If the withholding tax on a disposal, redemption, repayment or assignment has been calculated from 30% of the disposal proceeds (rather than from the actual gain), an individual holder may, and in case the actual gain is higher than 30% of the disposal proceeds, must apply for an assessment on the basis of his or her actual acquisition costs. Further, an individual holder may apply for a tax assessment on the basis of general rules applicable to him or her if the resulting individual income tax burden is lower than 25% with any amounts of German tax over-withheld being refunded. The deduction of expenses (other than transaction costs) on an itemized basis is not permitted. Losses incurred with respect to the Additional Notes may only be offset with investment income of the individual holder realized in the same or following assessment periods.

Pursuant to a tax decree issued by the German Federal Ministry of Finance on January 18, 2016 (as amended) a bad debt loss (*Forderungsausfall*) and a waiver of a receivable (*Forderungsverzicht*), to the extent that the waiver does not qualify as a hidden capital contribution, shall not be treated as a disposal.

Accordingly, losses suffered upon such bad debt loss or waiver are not tax deductible if the Notes are held as private investment (*Privatvermögen*). The same rules should be applicable according to the said tax decree, if the Additional Notes expire worthless so that losses may not be tax-deductible at all. With respect to a bad debt loss in the private wealth sphere (*private Vermögenssphäre*), the German Federal Fiscal Court (German Federal Fiscal Court decision dated 24 October 2017—VIII R 13/15) has objected the view of the German tax authorities and decided that a finally suffered bad debt loss is tax deductible. Parts of the tax administration (cf. Regional Tax Authority North Rhine-Westphalia, Brief Information Letter dated 23 January 2018) do not apply the German Fiscal Court decision beyond the decided individual case. Further decisions in this context are currently still pending with the German Federal Fiscal Court. In addition, in a recently published decision by the German Federal Fiscal Court with regard to losses incurred in connection with knock-out certificates due to the fact of exceeding the knock-out threshold the German Federal Fiscal Court took the view that such a case (*i.e.*, no payments from the day of exceeding the knock-out threshold) shall be treated similar to a bad debt loss as a sale at the value zero, so that losses suffered shall also be deductible for tax purposes (German Federal Fiscal Court decision dated 20 November 2018—VIII R 37/15). It remains unclear if and to what extent the German tax authorities will change their position as currently published with respect to the treatment of capital losses. Moreover, the tax authorities previously recognized losses suffered from a sale of a capital investment only if the proceeds received from the sale exceeded the respective transaction costs. Based on the decision of the German Federal Fiscal Court (German Federal Fiscal Court decision dated 12 June 2018—VIII R 32/16) the tax authorities have changed their position. According to a recent decree issued by the German Federal Ministry of Finance on May 10, 2019, losses resulting from a sale of a capital investment should be recognized irrespective of the amount of the sales proceeds or transaction costs.

According to the recently published draft bill of the German Federal Ministry of Finance (*Referentenentwurf des Bundesministeriums der Finanzen*) for an annual Tax Act 2019 (*Jahressteuergesetz 2019*) dated 8 May 2019 the view of the German tax authority on the non-deductibility of capital losses for tax purposes in the scenarios described above are proposed to be provided for in the German Income Tax Act.

Where Additional Notes form part of a trade or business of an individual or corporate holder or where the income from the Additional Notes qualifies as income from the letting and leasing of property, the withholding tax, if any, will not satisfy the personal or corporate income tax liability. Rather, the income is subject to individual or corporate income tax (plus solidarity surcharge and, where applicable, church tax thereon). Where Additional Notes form part of a trade or business, interest (including Accrued Interest) and capital gains must be taken into account as income. The respective holder will have to include income and related (business) expenses in the tax return and the balance will be taxed at the holder's applicable tax rate. Withholding tax levied, if any, will be credited as advance payment against the personal or corporate income tax liability of the holder or, to the extent exceeding this personal or corporate income tax liability, will be refunded. Where Additional Notes form part of a German trade or business the current income and capital gains from the disposal, redemption, repayment or assignment of the Additional Notes may also be subject to German trade tax (*Gewerbesteuer*). The trade tax liability depends on the municipal trade tax factor (*Gewerbesteuerhebesatz*). If the holder is an individual or an individual partner of a partnership, the trade tax may be completely or partly credited against the personal income tax pursuant to a lump sum tax credit method.

Non Tax Residents

This subsection “—*Non Tax Residents*” refers to persons who are not tax residents of Germany (*i.e.*, persons whose residence, habitual abode, statutory seat, and place of effective management is not located in Germany).

Interest, including accrued interest, and capital gains (which include currency gains and losses, if any) from the disposal, redemption, repayment or assignment of the Additional Notes received by holders who are not tax resident in Germany are generally not subject to German taxation, unless (i) the Additional Notes form part of the business property of a permanent establishment, including a permanent representative, or a fixed base maintained in Germany by the holder or (ii) the income otherwise constitutes German source income (e.g., such as income from capital investments directly or indirectly secured by German-situs real estate (unless the Additional Notes qualify as global notes (*Sammelurkunde*) within the meaning of Section 9a of the German Custody Act (*Depotgesetz*) or as fungible notes representing the same issue (*Teilschuldverschreibung*) or income from the letting and leasing of certain German-situs real estate or income from profit participating instruments). Furthermore, the holders who are not tax resident in

Germany may become subject to German withholding tax in case they receive the proceeds by way of an over-the-counter payment by a German Disbursing Agent and the Additional Notes are not held in custody with the same German Disbursing Agent. To the extent the German source income is subject to German withholding tax, this withholding tax is, in general final and the German tax liability is satisfied by the tax withheld. Where the German source income is not subject to German withholding tax or in case (i) of this paragraph (*i.e.*, if Additional Notes form part of the business property of a German permanent establishment), a tax regime similar to that explained above under “—*Tax Residents*” applies. Subject to certain requirements, a holder who is not tax resident in Germany may benefit from tax reductions or tax exemptions provided by an applicable double taxation treaty (*Doppelbesteuerungsabkommen*) and German tax law.

Bond Premium

If the Additional Notes are held as private investment (*Privatvermögen*) and if a German holder purchases an Additional Note for an amount (not including any amount paid for pre-issuance accrued interest) that is greater than the principal amount of the Additional Note, the bond premium is part of the acquisition costs which are deducted from the proceeds upon the disposal, redemption, repayment or assignment of the Additional Notes.

According to a circular issued by the Regional Tax Authority Frankfurt dated February 5, 2019, German holders, holding the Additional Notes as their trade or business assets (*Betriebsvermögen*) could be obliged to create a deferred item (*Rechnungsabgrenzungsposten*) in the amount of the bond premium which is to be dissolved linearly over the term of the Additional Note. Moreover, under certain circumstances, the German Holder may amortize (wholly or partly) a bond premium before disposal, redemption, repayment or assignment of the Additional Notes.

Inheritance and Gift Tax

A gratuitous transfer of Additional Notes by reason of death or as a gift will be subject to German inheritance or gift tax if the decedent or donor or the heir, donee or other beneficiary is at the time of the transfer a resident or deemed to be a resident of Germany or in certain cases for German citizens who previously maintained a residence in Germany. If neither the holder nor the recipient is a resident or deemed to be a resident of Germany at the time of the transfer, no German inheritance or gift taxes will be levied if the Additional Notes qualify as fungible notes representing the same issue (*Teilschuldverschreibung*) unless the Additional Notes are attributable to a German trade or business for which a permanent establishment or fixed base is maintained or a permanent representative has been appointed in Germany.

Other Taxes

No stamp, issue or registration taxes or such duties will be payable in Germany in connection with the issuance, delivery or execution of the Additional Notes (for the avoidance of doubt, except for any notarial fees). However, under certain conditions, entrepreneurs (for VAT purposes) may opt for a liability to value added tax with regard to the sale of Additional Notes which would otherwise be tax exempt. Currently, net assets tax (*Vermögensteuer*) is not levied in Germany.

The Proposed Financial Transaction Tax (FTT)

The European Commission has published a proposal for a Directive for a common financial transactions tax (“*FTT*”) in certain EU Member States. The Commission proposal is currently subject to review. The proposed FTT has a very broad scope and could, if introduced in the form of the proposal, apply to certain dealings in the Additional Notes (including secondary market transactions) in certain circumstances.

The FTT proposal remains subject to negotiation between the Member States with respect to the exact form and the timing. It may therefore be altered prior to any potential implementation.

Besides the proposed FTT, some jurisdictions (*e.g.*, Italy and France) have already introduced a domestic financial transaction tax that may apply to certain dealings in the Securities in certain circumstances. Other jurisdictions may also introduce a domestic financial transaction tax.

Prospective holders of the Additional Notes are advised to seek their own professional advice in relation to the FTT and domestic financial transaction taxes.

International Exchange of Information

Based on the “OECD Common Reporting Standard” states, which have committed themselves to apply the OECD Common reporting Standards (participating states), exchange information with respect to financial accounts held per person in another participating state. The same applies to EU Member States. Based on the extended Mutual Assistance Directive 2011/16/EC (amended by Directive 2014/107/EC) EU Member States exchange information with respect to certain reporting accounts of persons domiciled in another EU Member State. Prospective investors of the Additional Notes are advised to seek their own professional advice on further development.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following discussion is a summary of certain U.S. federal income tax considerations relevant to the purchase, ownership and disposition of the Additional Notes. This discussion is limited to U.S. holders (defined below) who purchase the Additional Notes in this Offering at the price indicated on the cover page of this offering memorandum and hold the Additional Notes as capital assets within the meaning of Section 1221 of the United States Internal Revenue Code, as amended (the “Code”). The following discussion does not address certain considerations that may apply to particular holders including, but not limited to, tax-exempt entities, holders subject to the U.S. federal alternative minimum tax, U.S. expatriates, dealers in securities or currencies, traders in securities who elect to apply a mark-to-market method of accounting, certain financial institutions, insurance companies, regulated investment companies, partnerships or other pass-through entities (or investors in such entities), U.S. holders whose “functional currency” is not the U.S. dollar and persons who hold the Additional Notes in connection with a “straddle”, “hedging”, “conversion” or other risk reduction transaction. This discussion does not address the tax considerations relevant to holders of the Additional Notes under any state, local or non-U.S. tax laws or any other tax laws other than the U.S. federal income tax laws, or the consequences to taxpayers subject to special tax accounting rules under Section 451(b) of the Code. Further, this discussion does not address the U.S. tax consequences relating to the redemption of the Floating Rate Notes.

The discussion below is based upon the Code, Treasury regulations promulgated thereunder (“**Treasury Regulations**”), court decisions, revenue rulings and administrative pronouncements of the Internal Revenue Service (the “**IRS**”) currently in force, all as of the date of this Offering, and all of which are subject to change or changes in interpretation. Prospective investors should particularly note that any such change or changes in interpretation could have retroactive effect so as to result in U.S. federal income tax consequences different from those discussed below. Consequently, prospective investors should consult their tax advisors as to the consequences of holding the Additional Notes.

As used herein, the term “**U.S. holder**” means a beneficial owner of Additional Notes that is for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation (or any other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States or any state or political subdivision thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons control all of the substantial decisions of the trust or if a valid election is in place to treat the trust as a U.S. person.

If an entity treated as a partnership for U.S. federal income tax purposes is an owner of the Additional Notes, the U.S. tax treatment of a partner in the partnership generally will depend on the status of the partner and the activities of the partnership. A holder of the Additional Notes that is a partnership and partners in such partnership should consult their own tax advisors regarding the U.S. federal income tax consequences of holding and disposing of the Additional Notes.

Prospective investors are urged to consult their own tax advisors with respect to the particular tax consequences to them of the purchase, ownership and disposition of the Additional Notes, including the tax consequences under any state, local, non-U.S. and other tax laws.

Characterization of the Additional Notes

In certain circumstances (see “*Description of the Notes—Optional Redemption*” and “*Description of the Notes—Repurchase at the Option of Holders upon a Change of Control*”) we may be obligated to make payments on the Additional Notes in excess of stated principal and interest. If (i) the exercise of the Issuer’s option to redeem the Additional Notes is not remote and (ii) it is not significantly more likely than not that no Change of Control will occur, the Additional Notes could be treated as contingent payment debt instruments for U.S. federal income tax purposes. We intend to take the position that the foregoing contingencies should not cause the Additional Notes to be treated as contingent payment debt instruments. This position is binding on a holder unless such holder discloses its contrary position in the manner required by applicable Treasury Regulations. Assuming such position is respected, a U.S. holder would be required to include in income the amount of any such additional payments at the time such payments are received or accrued in accordance with such U.S. holder’s method of accounting for U.S. federal income tax purposes. If the IRS successfully challenged this position, and the Additional Notes were treated as contingent payment debt instruments, U.S. holders could be required to accrue interest income at a rate higher than their yield to maturity, to treat as ordinary income, rather than capital gain, any gain recognized on a sale, exchange, retirement or redemption of such an Additional Note, and to recognize foreign currency exchange gain or loss with respect to such income. This disclosure assumes that the Additional Notes will not be considered contingent payment debt instruments. U.S. holders are urged to consult their own tax advisors regarding the potential application to the Additional Notes of the contingent payment debt instrument rules and the consequences thereof.

The issuance of the Additional Notes should be treated as a “qualified reopening” of the Existing Notes issued on March 27, 2018. Therefore, the Additional Notes issued in this offering should be treated as having the same issue date and the same issue price as the Existing Notes for U.S. federal income tax purposes.

Interest

Except as noted below with respect to pre-issuance accrued interest, payments of stated interest (including any amounts withheld and any Additional Amounts paid in respect of withholding taxes imposed on payments on the Additional Notes) on an Additional Note generally will be includible in the gross income of a U.S. holder as foreign source ordinary interest income at the time the interest is received or accrued, depending on the U.S. holder’s method of accounting for U.S. federal income tax purposes (and, for purposes of the U.S. foreign tax credit, generally will be considered passive category income).

A U.S. holder of an Additional Note that uses the cash method of accounting for U.S. federal income tax purposes and that receives a payment of stated interest will be required to include in ordinary income the U.S. dollar value of the euro interest payment (translated at the “spot rate” on the date such payment is received) regardless of whether the payment is in fact converted to U.S. dollars. A cash method U.S. holder will not recognize exchange gain or loss with respect to the receipt of such payment, but may have exchange gain or loss attributable to the actual disposition of the euros so received.

A U.S. holder of an Additional Note that uses the accrual method of accounting for U.S. federal income tax purposes, or who otherwise is required to accrue interest prior to receipt, will be required to include in ordinary income the U.S. dollar value of the amount of interest income in euros that has accrued with respect to an Additional Note during an accrual period. The U.S. dollar value of such accrued income will be determined by translating such income at the average spot rate of exchange for the accrual period or, with respect to an accrual period that spans two taxable years, at the average spot rate for the partial period within each taxable year. Alternatively, an accrual basis holder may make an election (which must be applied consistently to all debt instruments from year to year and cannot be changed without the consent of the IRS) to translate accrued interest income at the spot rate of exchange on the last day of the accrual period (or the last day of the portion of the accrual period within each taxable year, in the case of an accrual period that spans more than one taxable year), or at the spot rate on the date of receipt, if that date is within five business days of the last day of the accrual period. A U.S. holder of an Additional Note that uses the accrual method of accounting for U.S. federal income tax purposes will recognize exchange gain or loss with respect to accrued interest income on the date such interest is received. The amount of exchange gain or loss recognized will equal the difference, if any, between the U.S. dollar value of the euro payment received (translated at the “spot rate” on the date such payment is received) in respect of such accrual period and the U.S. dollar value of interest income that has accrued during such accrual period (as determined above), regardless of whether the payment is in fact converted to U.S. dollars. Such exchange

gain or loss will generally constitute ordinary income or loss and be treated, for foreign tax credit purposes, as U.S. source income or loss and generally will not be treated as an adjustment to interest income and expense.

Pre-Issuance Accrued Interest

A portion of the purchase price paid for the Additional Notes will be allocable to unpaid stated interest that has accrued prior to the date the Additional Note is purchased (the “**pre-issuance accrued interest**”). As a result, a portion of the interest received on the first interest payment date equal to the pre-issuance accrued interest may be treated as a return of the pre-issuance accrued interest and not as a payment of interest on the Additional Notes (except that a U.S. holder generally would be required to recognize exchange gain or loss, as discussed above, in an amount equal to the difference, if any, between the U.S. dollar value of the pre-issuance accrued interest at the time of purchase and at the time the payment of such pre-issuance accrued interest is received, as determined at the spot rate in effect on each such date). Amounts treated as a return of pre-issuance accrued interest will not be taxable when received but should reduce the adjusted tax basis in the Additional Notes by such amount. U.S. holders should consult their independent tax advisors regarding any pre-issuance accrued interest.

Amortizable Bond Premium

If a U.S. holder purchases an Additional Note for an amount (not including any amount paid for pre-issuance accrued interest, as discussed above) that is greater than the principal amount, the holder will be considered to have purchased the Additional Note with amortizable bond premium equal in amount to the excess of the purchase price over the principal amount. Subject to certain exceptions and the limitation discussed in the following paragraph, a U.S. holder may elect to amortize this premium, as an offset to stated interest over the remaining term of an Additional Note, using a constant yield method, over the remaining term of the Additional Note. A U.S. holder making this election must generally use any amortizable bond premium allocable to an accrual period to offset stated interest required to be included in income with respect to the Additional Note in such accrual period. U.S. holders are urged to consult their tax advisors regarding the availability of the deduction for amortizable bond premium. A U.S. holder who elects to amortize bond premium must reduce his tax basis in the Additional Note by the amount of the premium amortized in any year. An election to amortize bond premium applies to all taxable debt obligations then owned and thereafter acquired by the holder and may be revoked only with the consent of the IRS.

U.S. holders will generally compute amortizable bond premium in euros. A U.S. holder making the election to amortize bond premium may recognize exchange gain or loss each period equal to the difference between the U.S. dollar value of bond premium with respect to such period determined on the date the interest attributable to such period is received and the U.S. dollar value of such amortized bond premium determined on the date of the acquisition of the Additional Notes.

The Additional Notes are subject to call provisions at our option at various times. As a result, a U.S. holder will calculate the amount of amortizable bond premium based on the amount payable on an applicable call date if the use of the call price and the call date results in a smaller amortizable bond premium for the period ending on the call date. In the event that we do not exercise our call rights on such call date, the Additional Note generally should be treated as reissued on the call date for the call price, and the U.S. holder will recalculate the amount of any amortizable bond premium on such Additional Note pursuant to the principles described above. The foregoing rules may eliminate, reduce or defer any amortization deductions.

Foreign Tax Credit

Subject to the discussion of exchange gain or loss above, interest income (including any amounts withheld and any Additional Amounts paid in respect of withholding taxes imposed on payments on the Additional Notes) on an Additional Note generally will constitute foreign source income and generally will be considered “passive category income” in computing the foreign tax credit allowable to U.S. holders under U.S. federal income tax laws. Any non-U.S. withholding tax paid by a U.S. holder at the rate applicable to such holder may be eligible for foreign tax credits (or deduction in lieu of such credits) for U.S. federal income tax purposes, subject to applicable limitations. If a U.S. holder does not meet a minimum holding period with respect to the Additional Notes during which the holder is not protected from risk of loss, such holder generally will not receive a foreign tax credit for foreign taxes imposed with respect to the

Additional Notes. The rules governing the foreign tax credit are complex. The calculation of foreign tax credits involves the application of complex rules that depend on a U.S. holder's particular circumstances. U.S. holders should consult their independent tax advisors regarding the availability of foreign tax credits.

Sale and Disposition of the Additional Notes

Upon the sale, exchange or other taxable disposition of an Additional Note, a U.S. holder generally will recognize gain or loss in an amount equal to the difference between the amount realized (other than amounts attributable to accrued and unpaid stated interest, which, to the extent not previously included in income, and unless it represents pre-issuance accrued interest, will be taxable as ordinary interest income in accordance with the U.S. holder's method of tax accounting as described above and exchange gain or loss on such accrued and unpaid interest) and the U.S. holder's adjusted tax basis in the Additional Note. A U.S. holder's adjusted tax basis in an Additional Note generally will equal the U.S. dollar cost of the Additional Note to the holder decreased by any bond premium previously amortized on the Additional Note, and excluding any amount attributable to pre-issuance accrued interest (as described above) and decreased by any principal payments previously received by such U.S. holder with respect to such Additional Note.

The cost of acquiring an Additional Note will be the U.S. dollar value of the euro purchase price on the date of purchase, calculated at the exchange rate in effect on that date. The amount realized on the sale, exchange or other disposition of an Additional Note for an amount of euros will be the U.S. dollar value of that amount on (i) the date payment is received in the case of a cash basis U.S. holder, (ii) the date of disposition in the case of an accrual basis U.S. holder, or (iii) the settlement date (if the Additional Note is traded on an established securities market) in the case of a cash basis U.S. holder (and, if it elects, an accrual basis U.S. holder). If the Additional Note is traded on an established securities market, a U.S. holder will have a tax basis in the euro received equal to the U.S. dollar value of such amount on the settlement date. If an accrual method taxpayer makes the election described in this paragraph, the election must be applied consistently to all debt instruments from year to year and cannot be changed without the consent of the IRS.

Gain or loss recognized by a U.S. holder upon the sale, exchange or other taxable disposition of an Additional Note that is attributable to changes in currency exchange rates relating to the principal thereof will be ordinary income or loss and will generally be equal to the difference between the U.S. dollar value of the U.S. holder's purchase price of the Additional Note in euros (decreased by any amortizable bond premium amortized by the U.S. holder and the amount of any pre-issuance accrued interest to the extent that payment of such interest is treated as a nontaxable return of such pre-issuance accrued interest), determined on the date of the sale, exchange or other taxable disposition, and the U.S. dollar value of the U.S. holder's purchase price of the Additional Note (decreased by any amortizable bond premium amortized by the U.S. holder and the amount of any pre-issuance accrued interest to the extent that payment of such interest is treated as a nontaxable return of such pre-issuance accrued interest), in euros determined on the date the U.S. holder acquired the Additional Note. In addition, a U.S. holder may recognize foreign currency gain or loss with respect to amounts of previously accrued interest based on the difference between the rate of exchange at which the interest was included in income and the applicable rate of exchange at which the holder is required to translate euros at the time the Additional Note matures or is otherwise disposed of. The foregoing foreign exchange gain or loss will be recognized only to the extent of the total gain or loss realized by the U.S. holder on the sale, exchange or other disposition of the Additional Note, and will generally be treated as U.S. source ordinary income or loss for U.S. foreign tax credit limitation purposes.

Any gain or loss recognized by a U.S. holder in excess of foreign currency gain or loss recognized on the sale, exchange or other disposition of an Additional Note will generally be U.S. source capital gain or loss and will be long-term capital gain or loss if the Additional Note has been held for more than one year at the time of the sale or other disposition. In the case of an individual U.S. holder, any such long-term capital gain generally will be subject to preferential U.S. federal income tax rates if that U.S. holder satisfies certain prescribed minimum holding periods. The deductibility of capital losses is subject to significant limitations.

Receipt of Euros

The tax basis of any euros received by a U.S. holder generally will equal the U.S. dollar value of the euros at the spot rate of exchange on the date the euros are received. Upon any subsequent exchange of euros

for U.S. dollars, a U.S. holder generally will recognize exchange gain or loss equal to the difference between the amount of U.S. dollars received and the U.S. holder's tax basis in the euros. Upon any subsequent exchange of euros for property (including non-U.S. currency), a U.S. holder generally will recognize exchange gain or loss equal to the difference between the U.S. dollar value of the euros exchanged for such property based on the U.S. dollar spot rate of exchange for euros on the date of the exchange and the U.S. holder's tax basis in the euros so exchanged. Any such exchange gain or loss generally will be treated as U.S. source ordinary income or loss.

Reportable Transactions

Under the Treasury Regulations, certain transactions are required to be reported to the IRS including, in certain circumstances, a sale, exchange, retirement or other taxable disposition of an Additional Note or foreign currency received in respect of an Additional Note to the extent that such sale, exchange, retirement or other taxable disposition results in a foreign currency tax loss in excess of a threshold amount. If investors fail to timely file a required disclosure under these rules, substantial penalties can apply. Potential investors should consult with their own tax advisors to determine the tax return obligations, if any, with respect to an investment in the Additional Notes.

U.S. Information Reporting and Backup Withholding

Payments of interest and proceeds from the sale, redemption or other disposition of an Additional Note may be reported to the IRS unless the holder establishes a basis for exemption. Backup withholding may apply to amounts subject to reporting if the holder fails to timely provide an accurate taxpayer identification number or fails to report all interest and dividends required to be shown on its U.S. federal income tax returns. Backup withholding is not an additional tax. A holder can claim a credit against its U.S. federal income tax liability for the amount of any backup withholding and a refund of any excess.

Information with Respect to Foreign Financial Assets

Certain owners of "specified foreign financial assets" with an aggregate value in excess of US\$50,000 (and in some circumstances, a higher threshold), will generally be required to file an information report on IRS Form 8938 with respect to such assets with their U.S. federal tax returns. "Specified foreign financial assets" include any financial accounts maintained by foreign financial institutions, as well as any of the following, but only if they are held for investment and not held in accounts maintained by financial institutions: (i) stocks and securities issued by non-United States persons, (ii) financial instruments and contracts that have non-United States issuers or counterparties, and (iii) interests in foreign entities. Such reporting requirement may also apply to certain non-individual holders. Holders are urged to consult their tax advisors regarding the application of this reporting requirement to their ownership of Additional Notes.

Medicare Tax

Certain U.S. holders that are individuals, estates or trusts and whose income exceeds certain thresholds will be subject to an additional 3.8% Medicare tax on some or all of such U.S. holder's "net investment income". Net investment income generally includes interest on, and gain from the disposition of, the Additional Notes unless such interest income or gain is derived in the ordinary course of the conduct of a trade or business (other than a trade or business that consists of certain passive or trading activities). U.S. holders should consult their tax advisors regarding the effect this tax may have, if any, on their acquisition, ownership or disposition of Additional Notes.

CERTAIN CONSIDERATIONS FOR ERISA AND OTHER PLAN INVESTORS

General

Subject to the following discussion, the Notes may be acquired by an “employee benefit plan” as defined in Section 3(3) of the U.S. Employee Retirement Income Security Act of 1974, as amended (“**ERISA**”) that is subject to Title I of ERISA, a “plan” as defined in and subject to Section 4975 of the Code (including individual retirement accounts) or an entity deemed to hold “plan assets” within the meaning of 29 C.F.R. Section 2510.3-101 (as modified by Section 3 (42) of ERISA) of the foregoing (each, a “**Benefit Plan Investor**”), as well as by governmental plans (as defined in Section 3(32) of ERISA), church plans (as defined in Section 3(33) of ERISA) or other plans that are not subject to the foregoing (collectively, with Benefit Plan Investors, referred to as “**Plans**”). Section 406 of ERISA and Section 4975 of the Code prohibit Benefit Plan Investors from engaging in certain transactions with persons that are “parties in interest” under ERISA or “disqualified persons” under the Code with respect to such Benefit Plan Investor. A violation of these “prohibited transaction” rules may result in an excise tax or other penalties and liabilities under ERISA and the Code for such persons or the fiduciaries of such Benefit Plan Investor. In addition, Title I of ERISA requires fiduciaries of a Benefit Plan Investor subject to ERISA to make investments that are prudent, diversified and in accordance with the governing plan documents. Employee benefit plans that are governmental plans, certain church plans or other plans that are not subject to the fiduciary and prohibited transaction provisions of ERISA or Section 4975 of the Code may be subject to similar restrictions under applicable state, local or other law (“**Similar Law**”).

General Fiduciary Matters

Under ERISA and the Code, any person who exercises any discretionary authority or control over the administration of such a Benefit Plan Investor or the management or disposition of the assets of such a Benefit Plan Investor, or who renders investment advice for a fee or other compensation to such a Benefit Plan Investor, is generally considered to be a fiduciary of the Benefit Plan Investor. ERISA requires fiduciaries of a Benefit Plan Investor subject to ERISA to make investments that are prudent, diversified and in accordance with the governing plan documents. In considering an investment in the Notes of a portion of the assets of any Plan, a fiduciary should consult with its counsel in order to determine the suitability of the Notes for such Plan, including whether the investment is in accordance with the documents and instruments governing the Plan and the applicable provisions of ERISA, the Code or any Similar Law relating to a fiduciary’s duties to the Plan including, without limitation, the prudence, diversification, delegation of control and prohibited transaction provisions of ERISA, the Code and any other applicable Similar Law.

Prohibited Transaction Issues

The acquisition and/or holding of the Notes by or on behalf of a Benefit Plan Investor could be considered to give rise to a prohibited transaction if we are or become, or another party involved with this Offering is or becomes, a party in interest or a disqualified person with respect to such Benefit Plan Investor. Certain exemptions from the prohibited transaction rules could be applicable to the purchase and holding of the Notes by a Benefit Plan Investor depending on the type and circumstances of the plan fiduciary making the decision to acquire such Notes and the relationship of the party in interest to the Benefit Plan Investor. Included among these exemptions are: Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code for certain transactions between a Benefit Plan Investor and non-fiduciary service providers to the Benefit Plan Investor; Prohibited Transaction Class Exemption (“**PTCE**”) 96-23, regarding transactions effected by “in-house asset managers;” PTCE 95-60, regarding investments by insurance company general accounts; PTCE 91-38, regarding investments by bank collective investment funds; PTCE 90-1, regarding investments by insurance company pooled separate accounts; and PTCE 84-14, regarding transactions effected by “qualified professional asset managers.” Even if the conditions specified in one or more of these exemptions are met, the scope of the relief provided by these exemptions might or might not cover all acts which might be construed as prohibited transactions. There can be no assurance that any of these, or any other exemption, will be available with respect to any particular transaction involving the Notes, and prospective acquirers that are Benefit Plan Investors should consult with their legal advisors regarding the applicability of any such exemption.

Because of the foregoing, the Notes should not be purchased or held by any person investing “plan assets” of any Plan, unless such purchase and holding (i) are entitled to exemption relief from the prohibited transaction provisions of ERISA and the Code and are otherwise permissible under all applicable Similar

Law or (ii) would not otherwise constitute a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code or any violation of applicable Similar Law.

The foregoing discussion is general in nature and is not intended to be all inclusive, nor should it be construed as legal advice. Due to the complexity of these rules and the penalties that may be imposed upon persons involved in non-exempt prohibited transactions, it is particularly important that fiduciaries, or other persons considering purchasing the Notes on behalf of, or with the assets of, any Plan, consult with their counsel regarding the suitability of an acquisition of the Notes in light of such prospective purchaser's particular circumstances, potential applicability of ERISA, Section 4975 of the Code and any Similar Law to such investment and whether an exemption would be applicable to the purchase and holding of the Notes. The sale of a Note to a Plan is in no respect a representation by any of the Issuer, Guarantors or the Initial Purchasers or any of their respective affiliates or representatives that such an investment meets all relevant legal requirements with respect to investments by any such Plan or that such investment is appropriate for any such Plan.

Representation

By acquiring a Note (or interest therein), each purchaser and transferee (and if the purchaser or transferee is a Plan, its fiduciary) is deemed to represent, warrant and covenant that either (i) it is not acquiring the Note (or interest therein) with the assets of a Plan; or (ii) the acquisition and holding of the Note (or interest therein) will not give rise to a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code or a violation of Similar Law.

BOOK-ENTRY, DELIVERY AND FORM

General

The Additional Notes will be represented by two global notes in bearer form, without interest coupons attached. One global note will represent Additional Notes sold to qualified institutional buyers pursuant to Rule 144A, such global note initially being a temporary 144A global note which, after the expiration of certain U.S. selling restrictions on June 1, 2020, will be replaced by a permanent 144A global note (each such global note, an “**Additional 144A Global Note**”), and one global note (the “**Additional Regulation S Global Note**” and together with the Additional 144A Global Note, the “**Additional Global Notes**”) will represent Additional Notes sold in offshore transactions to non-U.S. persons pursuant to Regulation S. The Additional Global Notes are in addition to the one global note (the “**Original 144A Global Note**”) which represents the Existing Notes sold to qualified institutional buyers pursuant to Rule 144A and one global note (the “**Original Regulation S Global Note**” and together with the Original 144A Global Note, the “**Original Global Notes**”) which represents the Existing Notes sold in offshore transactions to non-U.S. persons pursuant to Regulation S. The Additional 144A Global Note together with the Original 144A Global Note, the “**144A Global Note**”, the Additional Regulation S Global Note together with the Original Regulation S Global Note, the “**Regulation S Global Note**”, and the Original Global Notes together with the Additional Global Notes, the “**Global Notes**”.

Upon issuance, each of the Global Notes will be deposited with and immobilized, and held by Clearstream Banking AG, Frankfurt am Main, Germany, (“**Clearstream Banking**”) and will be kept in custody by Clearstream Banking until all obligations of the Issuer under the Additional Notes have been satisfied. Definitive notes representing individual Additional Notes and interest coupons will not be issued.

All interests in the Global Notes will be subject to the operations and procedures of Clearstream Banking. The Additional Notes will be transferable, subject to the limitations and procedures described below under “—*Transfers*”, by appropriate entries in securities accounts in accordance with applicable rules of Clearstream Banking. The Additional Notes will not be eligible for clearance through the facilities of the Depositary Trust Company.

Pursuant to the Book-Entry Registration Agreement between the Issuer and Clearstream Banking, to be dated on or around the issue date of the Additional Notes, the Issuer has appointed Clearstream Banking as its book-entry registrar (the “**Book-Entry Registrar**”) in respect of the Notes, and agreed on an agent for the Issuer to maintain (i) a register reflecting the aggregate number of Notes, represented by each Global Note in accordance with the Conditions of Issue and (ii) a register (the “**Book-Entry Register**”) containing records of the Notes credited to the accounts of the accountholders of Clearstream Banking, for the benefit of the Holders of the co-ownership interests (*Miteigentumsanteile*) in the Notes represented by the Global Notes.

The Issuer and Clearstream Banking have agreed, for the benefit of the Holders of co ownership interests in the Notes, that the actual number of Notes, represented by each Global Note from time to time shall be evidenced by the records of the Book-Entry Registrar. No transfer of any Note through the clearing system shall be effective unless it is recorded in the Book-Entry Register. Ownership of interests in each Global Note will be limited to persons who have accounts with Clearstream Banking (“**participants**”) or persons who hold interests through participants (“**indirect participants**”).

Transfers

Transfers between participants in Clearstream Banking will be effected in accordance with the applicable rules of Clearstream Banking rules and, outside of the Federal Republic of Germany, of Clearstream Banking, (42 Avenue JF Kennedy, 1855 Luxembourg, Luxembourg) and Euroclear Bank SA/NV (Boulevard du Roi Albert II, 1210 Brussels, Belgium) as operator of the Euroclear System and any successor in such capacity, and will be settled in immediately available funds. The Notes will be transferable only in minimum aggregate principal amounts of €100,000 and any integral multiple of €1,000 in excess thereof. Each Global Note and interests in each Global Note will be subject to restrictions on transfer as described under “*Transfer Restrictions*” and “*Plan of Distribution—Selling and Transfer Restrictions*”.

The Notes represented by a 144A Global Note may be exchanged for Notes represented by a Regulation S Global Note and vice versa, except that no such exchange can be effected in the period starting three business days prior to any payment of principal, interest or any other amount under the Conditions of Issue until (and including) the date of such payment.

If a holder who holds a book-entry interest in a 144A Global Note wishes at any time to exchange its interest in a 144A Global Note for an interest in a Regulation S Global Note, or to transfer its interest in a 144A Global Note to a person who wishes to take delivery thereof in the form of an interest in a Regulation S Global Note, it may, subject to the rules and procedures of the clearing system and the requirements set forth in this paragraph, exchange or transfer or cause the transfer of such interest for an equivalent interest in a Regulation S Global Note. Such exchange or transfer shall only be made upon:

- (a) receipt by the Transfer Agent of a certificate, in the form obtainable from the Transfer Agent, given by such holder (i) instructing the Transfer Agent to credit or cause to be credited an interest in a Regulation S Global Note in an amount equal to the interest in a 144A Global Note of the same series to be exchanged or transferred, (ii) containing information regarding the account to be credited with such increase and instructing the Transfer Agent to make arrangements to deliver such increase to such account, and (iii) stating that the exchange or transfer of such interest has been made pursuant to and in accordance with Rule 903 or Rule 904 of Regulation S or Rule 144 under the U.S. Securities Act; and
- (b) transfer of its interest in a 144A Global Note to be transferred or exchanged to the account of the Transfer Agent with the clearing system designated by the Transfer Agent.

If a Holder who holds a book-entry interest in a Regulation S Global Note wishes at any time to exchange its interest in a Regulation S Global Note for an interest in a 144A Global Note, or to transfer its interest in a Regulation S Global Note to a person who wishes to take delivery thereof in the form of an interest in a 144A Global Note, it may, subject to the rules and procedures of the clearing system and the requirements set forth in this paragraph, exchange or transfer or cause the transfer of such interest for an equivalent interest in a 144A Global Note. Such exchange or transfer shall only be made upon:

- (a) receipt by the Transfer Agent of a certificate, in the form obtainable from the Transfer Agent, given by such holder (i) instructing the Transfer Agent to credit or cause to be credited an interest in a 144A Global Note in an amount equal to the interest in a Regulation S Global Note to be exchanged or transferred, and (ii) containing information regarding the account to be credited with such increase and instructing the Transfer Agent to make arrangements to deliver such increase to such account; and
- (b) transfer of its interest in a Regulation S Global Note to be transferred or exchanged to the account of the Transfer Agent with the Clearing System designated by the Transfer Agent.

Any exchange of Notes represented by a 144A Global Note for Notes, represented by a Regulation S Global Note, or vice versa, shall be recorded on the register and shall be effected by an increase or a reduction in the aggregate amount represented by a 144A Global Note by the aggregate principal amount of the Notes, so exchanged and a corresponding reduction or increase in the aggregate principal amount of Notes represented by the relevant Regulation S Global Note.

Pursuant to an agreement dated on or around the issue date of the Additional Notes between the Issuer and Clearstream Banking, the Issuer has appointed Clearstream Banking as the Book-Entry Registrar for the Notes. The Book-Entry Registrar has agreed to maintain the Book-Entry Register, as agent of the Issuer, showing the interests of Clearstream Banking accountholders in the Global Notes. No transfer of any Note through the clearing system shall be effective unless it is recorded in the Book-Entry Register. On any redemption of, or payment of an installment on, or purchase and cancellation of, any of the Notes represented by a Global Note the Issuer shall procure that details of any redemption, payment or purchase and cancellation (as the case may be) in respect of that Global Note shall be entered accordingly in the register and, upon any such entry being made, the principal amount of the Notes represented by the Global Notes shall be reduced by the aggregate principal amount of the Notes so redeemed or purchased and cancelled or by the aggregate amount of such installment so paid and appropriate entries shall be made in the Book-Entry Register by the Book-Entry Registrar.

Book-Entry Procedures for the Global Notes

The following summaries of those operations and procedures are provided herein solely for the convenience of investors. The operations and procedures of each settlement system are controlled by that settlement system and may be changed at any time. None of the Issuer, Guarantors or the Initial Purchasers is responsible for those operations or procedures.

The Issuer and the Guarantors understand the following with respect to Clearstream Banking:

- Clearstream Banking holds securities for participating organizations and facilitates the clearance and settlement of securities transactions between its participants through electronic book-entry changes in accounts of those participants;
- Clearstream Banking provides to its participants, among other things, services for safekeeping, administration, clearance and settlement of securities and securities lending and borrowing;
- Clearstream Banking participants are financial institutions such as underwriters, securities brokers and dealers, banks, trust companies and certain other organizations; and
- indirect access to Clearstream Banking is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodian relationship with a Clearstream Banking participant, either directly or indirectly.

Payments of principal, premium (if any) and interest with respect to the Notes will be made by the Issuer in euros to the Paying Agent, which will pay such amounts to Clearstream Banking, as the holder of the Global Notes. Clearstream Banking will, in turn, distribute those payments to its participants in accordance with its procedures. Payments by participants and indirect participants of Clearstream Banking to the owners of interests in a Global Note will be the responsibility of those participants or indirect participants.

Investors will only be able to make and receive deliveries, payments and other communications relating to the Notes through Clearstream Banking on days when the Clearstream Banking system is open for business. That system may not be open for business on certain days when banks, brokers and other institutions are open for business in the United States. In addition, because of time-zone differences, there may be complications in connection with completing transactions through Clearstream Banking on the same business day as in the United States. U.S. investors who wish to transfer an interest in a Global Note or to receive or make a payment or delivery of such an interest on a particular day may find that the transaction will not be performed until the next business day in Frankfurt am Main, Germany.

ACTION BY OWNERS OF BOOK-ENTRY INTERESTS

Clearstream Banking has advised the Issuer that it will take any action permitted to be taken by a holder of Notes only at the direction of one or more participants to whose account the book-entry interests in the Global Notes are credited and only in respect of such portion of the aggregate principal amount of Notes as to which such participant or participants has or have given such direction. Clearstream Banking will not exercise any discretion in the granting of consents, waivers or the taking of any other action in respect of the Global Notes.

Book-entry interests in the Global Notes will be subject to the restrictions on transfers and certification requirements as discussed in “*Plan of Distribution—Selling and Transfer Restrictions*”.

TRANSFER RESTRICTIONS

Because of the following restrictions, you are advised to consult legal counsel prior to making any offer, resale, pledge or other transfer of the Additional Notes offered hereby.

The Additional Notes and the Guarantees have not been and will not be registered under the U.S. Securities Act, or any state securities laws, and, unless so registered, may not be offered or sold except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the U.S. Securities Act and other applicable state securities laws. Accordingly, the Additional Notes are being offered and sold only (i) to “qualified institutional buyers” (as defined in Rule 144A under the U.S. Securities Act) (“QIBs”) in reliance on Rule 144A and (ii) to persons other than “U.S. persons” (as defined in Regulation S under the U.S. Securities Act) outside the United States in offshore transactions (as defined in Regulation S) in reliance on Regulation S.

The Issuer uses the terms “offshore transaction”, “U.S. person” and “United States” with the meanings given to them in Regulation S.

Each purchaser of the Additional Notes hereunder (other than the of the Initial Purchasers) will be deemed to have acknowledged, represented and agreed with us, each Guarantor and the Initial Purchasers as follows:

- (1) It understands and acknowledges that the Additional Notes and the Guarantees have not been registered under the U.S. Securities Act or any other applicable securities laws and that the Additional Notes are being offered for resale in transactions not requiring registration under the U.S. Securities Act or any other securities laws, including sales pursuant to Rule 144A and, unless so registered, may not be offered, sold or otherwise transferred except in compliance with the registration requirements of the U.S. Securities Act or any other applicable securities laws, pursuant to an exemption therefrom or in any transaction not subject thereto and in each case in compliance with the conditions for transfer set out in paragraphs (5) and (6) below;
- (2) It is neither the Issuer’s “affiliate” (as defined in Rule 144), nor acting on its behalf and that either:
 - (a) it is a QIB, within the meaning of Rule 144A and is aware that any sale of these Additional Notes to it will be made in reliance on Rule 144A, and such acquisition will be for its own account or for the account of another QIB; or
 - (b) it is purchasing the Additional Notes in an offshore transaction in accordance with Regulation S;
- (3) It acknowledges that none of the Issuer, the Guarantors or the Initial Purchasers, nor any person representing any of them, has made any representation to it with respect to the Issuer and its subsidiaries or the offer or sale of any of the Additional Notes, other than the information contained in this offering memorandum, which offering memorandum has been delivered to it and upon which it is relying in making its investment decision with respect to the Additional Notes. It acknowledges that neither the Initial Purchasers nor any person representing the Initial Purchasers make any representation or warranty as to the accuracy or completeness of this offering memorandum. It has had access to such financial and other information concerning the Issuer and its subsidiaries and the Additional Notes that it deems necessary in connection with its decision to purchase any of the Additional Notes, including an opportunity to ask questions of, and request information from, the Issuer and the Initial Purchasers;
- (4) It is purchasing the Additional Notes for its own account, or for one or more investor accounts for which it is acting as a fiduciary or agent, in each case for investment, and not with a view to, or for offer or sale in connection with, any distribution thereof in violation of the U.S. Securities Act or any state securities laws, subject to any requirement of law that the disposition of its property or the property of such investor account or accounts be at all times within its or their control and subject to its or their ability to resell such Additional Notes pursuant to Rule 144A, Regulation S or any other exemption from registration available under the U.S. Securities Act, or in any transaction not subject to the U.S. Securities Act;
- (5) It agrees on its own behalf and on behalf of any investor account for which it is purchasing the Additional Notes, and each subsequent holder of the Additional Notes by its acceptance thereof will be deemed to agree, to offer, sell or otherwise transfer such Additional Notes prior to the

date (the “**Resale Restriction Termination Date**”) that is, in the case of the Rule 144A Notes, one year after the latest of the original issue date of the Additional Notes and the last date on which the Issuer or any of its affiliates were the owner of such Additional Notes (or any predecessor thereof), only (i) to the Issuer or the Guarantors; (ii) pursuant to a registration statement that has been declared effective under the U.S. Securities Act; (iii) for so long as the Additional Notes are eligible for resale pursuant to Rule 144A, to a person you reasonably believe is a QIB that purchases for its own account or for the account of a QIB to whom notice is given that the transfer is being made in reliance on Rule 144A; (iv) pursuant to offers and sales that occur outside the United States in offshore transactions in compliance with Regulation S; or (v) pursuant to any other available exemption from the registration requirements of the U.S. Securities Act, subject in each of the foregoing cases to any requirement of law that the disposition of its property or the property of such investor account or accounts be at all times within its or their control and in compliance with any applicable state securities laws, and any applicable local laws and regulations, and further subject to the Issuer and the Holders’ Representative’s rights prior to any such offer, sale or transfer (I) pursuant to clause (v) above to require the delivery of an opinion of counsel, certification and other information satisfactory to each of them and (II) in each of the foregoing cases, to require that a certificate of transfer is completed and delivered by the transferor to the Holders’ Representative. The foregoing restrictions on resale will not apply subsequent to the Resale Restriction Termination Date.

Each purchaser acknowledges that each Additional Note will bear a legend substantially to the following effect:

THIS SECURITY HAS NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE “U.S. SECURITIES ACT”), OR THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION. NEITHER THIS SECURITY NOR ANY INTEREST OR PARTICIPATION HEREIN MAY BE REOFFERED, SOLD, ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS SUCH TRANSACTION IS EXEMPT FROM, OR NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE U.S. SECURITIES ACT.

IN THE CASE OF RULE 144 NOTES: THE HOLDER OF THIS SECURITY, BY ITS ACCEPTANCE HEREOF, (1) REPRESENTS THAT (A) IT IS A “QUALIFIED INSTITUTIONAL BUYER” (AS DEFINED IN RULE 144A UNDER THE U.S. SECURITIES ACT (“RULE 144A”)) OR (B) IT IS NOT A U.S. PERSON AND IS ACQUIRING THIS ADDITIONAL NOTE IN AN “OFFSHORE TRANSACTION” PURSUANT TO RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT, AND (2) AGREES ON ITS OWN BEHALF AND ON BEHALF OF ANY INVESTOR FOR WHICH IT HAS PURCHASED SECURITIES TO OFFER, SELL OR OTHERWISE TRANSFER SUCH SECURITY, PRIOR TO THE RESALE RESTRICTION TERMINATION DATE, WHICH IS ONE YEAR AFTER THE LATEST OF THE ORIGINAL ISSUE DATE HEREOF, AND THE LAST DATE ON WHICH THE ISSUER OR ANY AFFILIATE OF THE ISSUER WAS THE OWNER OF THIS SECURITY (OR ANY PREDECESSOR OF THIS SECURITY), ONLY (A) TO THE ISSUER OR THE GUARANTORS, (B) PURSUANT TO A REGISTRATION STATEMENT WHICH HAS BEEN DECLARED EFFECTIVE UNDER THE U.S. SECURITIES ACT, (C) FOR SO LONG AS THE SECURITIES ARE ELIGIBLE FOR RESALE PURSUANT TO RULE 144A, TO A PERSON IT REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER THAT PURCHASES FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A, (D) PURSUANT TO OFFERS AND SALES THAT OCCUR OUTSIDE THE UNITED STATES IN COMPLIANCE WITH REGULATION S UNDER THE U.S. SECURITIES ACT, OR (E) PURSUANT TO ANY OTHER AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE U.S. SECURITIES ACT, SUBJECT IN EACH OF THE FOREGOING CASES TO ANY REQUIREMENT OF LAW THAT THE DISPOSITION OF ITS PROPERTY OR THE PROPERTY OF SUCH INVESTOR ACCOUNT OR ACCOUNTS BE AT ALL TIMES WITHIN ITS OR THEIR CONTROL AND IN COMPLIANCE WITH ANY APPLICABLE STATE SECURITIES LAWS, AND ANY

APPLICABLE LOCAL LAWS AND REGULATIONS AND FURTHER SUBJECT TO THE ISSUER'S AND THE HOLDERS' REPRESENTATIVE'S RIGHTS PRIOR TO ANY SUCH OFFER, SALE OR TRANSFER PURSUANT TO CLAUSES (D) OR (E) TO REQUIRE THE DELIVERY OF AN OPINION OF COUNSEL, CERTIFICATION AND OTHER INFORMATION SATISFACTORY TO EACH OF THEM.

If the Additional Notes are issued with original issue discount for U.S. federal income tax purposes, the Additional Notes will bear the following legend:

ORIGINAL ISSUE DISCOUNT. THE ADDITIONAL NOTES HAVE BEEN ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”) FOR UNITED STATES FEDERAL INCOME TAX PURPOSES. IN SUCH CASE, THE ISSUE PRICE, THE AMOUNT OF OID, THE ISSUE DATE AND THE YIELD TO MATURITY MAY BE OBTAINED BY CONTACTING THE ISSUER AT PROGROU AG, HEAD OF TREASURY, HORSTRING 12, 76829 LANDAU, GERMANY

A purchaser of Additional Notes will also be deemed to acknowledge that the foregoing restrictions apply to Holders of beneficial interests in these T Notes as well as to Holders of these Additional Notes.

- (6) It agrees that it will give to each person to whom it transfers the Additional Notes notice of any restrictions on the transfer of such Additional Notes;
- (7) It acknowledges that the Book-Entry Registrar and Transfer Agent will not be required to accept for registration or transfer any Additional Notes acquired by it except upon presentation of evidence satisfactory to the Issuer, Transfer Agent and the Book-Entry Registrar that the restrictions set out therein have been complied with;
- (8) It acknowledges that the Issuer, the Guarantors, the Initial Purchasers and others will rely upon the truth and accuracy of the acknowledgements, representations, warranties and agreements and agrees that if any of the acknowledgements, representations, warranties and agreements deemed to have been made by your purchase of the Additional Notes are no longer accurate, it shall promptly notify the Issuer and the Initial Purchasers. If it is acquiring any Additional Notes as a fiduciary or agent for one or more investor accounts, it represents that it has sole investment discretion with respect to each such investor account and that it has full power to make the foregoing acknowledgements, representations and agreements on behalf of each such investor account; and
- (9) It understands that no action has been taken in any jurisdiction (including the United States) by the Issuer, the Guarantors or the Initial Purchasers that would result in a public offering of the Additional Notes or the possession, circulation or distribution of this offering memorandum or any other material relating to the Issuer or the Additional Notes in any jurisdiction where action for such purpose is required. Consequently, any transfer of the Additional Notes will be subject to the selling restrictions set out under “*Plan of Distribution*”, “*Notice to EEA Investors*” and “*Prohibition of Sales to EEA Retail Investors*”.

PLAN OF DISTRIBUTION

General

The Issuer has agreed to sell to Deutsche Bank AG, London Branch, Commerzbank Aktiengesellschaft, Goldman Sachs International and HSBC Bank plc (the “**Initial Purchasers**”), and the Initial Purchasers have agreed, subject to certain customary closing conditions, to subscribe to and pay for, the Additional Notes on the issue date of the Additional Notes.

The sale will be made pursuant to an agreement among the Issuer, the Guarantors and the Initial Purchasers (the “**Purchase Agreement**”). Subject to the terms and conditions of the Purchase Agreement, the Issuer has agreed to sell to the Initial Purchasers, and the Initial Purchasers have agreed, to purchase from the Issuer all of the Additional Notes. The Purchase Agreement provides that the obligations of the Initial Purchasers to pay for and accept delivery of the Notes are subject to, among other conditions, the delivery of certain legal opinions by the Issuer’s and their counsel. The Purchase Agreement also provides that the Issuer and the Guarantors will indemnify the Initial Purchasers against certain liabilities, including liabilities under the U.S. Securities Act, and will contribute to payments that the Initial Purchasers may be required to make in respect thereof. The Issuer has furthermore agreed to reimburse the Initial Purchasers for certain expenses incurred in connection with the issue of the Additional Notes. In the Purchase Agreement, the Issuer and the Guarantors have made certain representations and given certain warranties in respect of their respective legal and financial matters. The Initial Purchasers is entitled, under certain circumstances, to terminate the Purchase Agreement. In such event, no Additional Notes will be delivered to investors.

No Sale of Similar Securities

The Issuer has agreed, subject to certain limited exceptions, that it or its affiliates and subsidiaries will not, directly or indirectly, sell or offer to sell any of the Additional Notes or other euro-denominated debt securities with a tenor of more than one year for a period of 120 days from the date the Additional Notes are issued without first obtaining the written consent of the Sole Global Coordinator.

New Issue of Additional Notes

Application will be made to The International Stock Exchange Authority Limited (the “**Authority**”) for the listing of and permission to deal in the Additional Notes on the Official List of The International Stock Exchange (the “**Exchange**”). There is no assurance that the Additional Notes will be listed on the Official List of the Exchange, that such permission to deal in the Additional Notes will be granted, or that such listing will be maintained. Notwithstanding the foregoing, the Issuer may at its sole option at any time, without the consent of the Holders or the Holders’ Representative, de-list the Additional Notes from any stock exchange for the purposes of moving the listing of the Additional Notes to another recognized stock exchange for high yield issuers (which may be a stock exchange that is not regulated by the European Union). The Initial Purchasers have advised us that they intend to make a market in the Additional Notes after completion of the Offering. However, the Initial Purchasers are under no obligation to do so and may discontinue any market-making activities at any time without notice. In addition, any such market-making activity will be subject to the limits imposed by the U.S. Securities Act and the Exchange Act. Accordingly, it cannot be assured that any market for the Additional Notes will develop, or that such market will be liquid if it does develop, or that an investor will be able to sell any Additional Notes at a particular time or at a price which will be favorable.

Stamp Tax

Persons that purchase the Additional Notes from the Initial Purchasers may be required to pay stamp duty, taxes and other charges in accordance with the laws and practice of the country of purchase in addition to the offering price.

Price Stabilization and Short Positions

In connection with this Offering, Deutsche Bank AG, London Branch (the “**Stabilizing Manager**”) (or persons acting on its behalf) may purchase and sell Additional Notes in the open market. These transactions may include over allotment, stabilizing transactions, syndicate covering transactions and penalty bids. Over allotment involves sales in excess of the offering size, which creates a short position for the Initial Purchasers. Stabilizing transactions involve bids to purchase the Additional Notes in the open

market for the purpose of pegging, fixing or maintaining the price of the Additional Notes. Syndicate covering transactions involve purchases of the Additional Notes in the open market after the distribution has been completed in order to cover short positions. Penalty bids permit the Initial Purchasers to reclaim a selling concession from a broker/dealer when the Additional Notes originally sold by such broker/dealer are purchased in a stabilizing or covering transaction to cover short positions.

These transactions may be effected in the over the counter market or otherwise. These activities may stabilize, maintain or otherwise affect the market price of the Additional Notes. As a result, the price of the Additional Notes may be higher than the prices that otherwise might exist in the open market. Neither the Issuer nor the Initial Purchasers make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the Additional Notes. In addition, there is no obligation on the Stabilizing Manager to engage in such transactions and neither the Issuer nor the Initial Purchasers make any representation that the Stabilizing Manager will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice. Any stabilizing action, if commenced, must end no later than the earlier of 30 days after the issue date of the Additional Notes and 60 days after the date of the allotment of the Additional Notes.

Initial Settlement

It is expected that delivery of the Additional Notes will be made against payment therefore on or around the date specified on the cover page of the offering memorandum, which will be the tenth business day following the date of pricing of the Additional Notes (this settlement cycle is being referred to as “T+10”). Under Rule 15(c)6-1 under the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Additional Notes on the date of pricing or the next seven succeeding business days will be required to specify an alternative settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of the Additional Notes who wish to trade the Additional Notes on the date of pricing or the next seven succeeding business days should consult their own advisor.

Other Relationships

The Initial Purchasers or their respective affiliates, from time to time, may provide in the future, investment banking, commercial lending, consulting and financial advisory services to the Issuer and its affiliates for which they may receive customary advisory and transaction fees, commissions and expense reimbursement. In particular, (i) the Issuer as company and original guarantor, Progroup Board sp. z o.o. as borrower and original guarantor, the other existing Guarantors as original guarantors and Commerzbank Aktiengesellschaft as mandated lead arranger, original lender and agent, have entered into the Existing Senior Secured PLN Facilities, (ii) the Issuer as company and original guarantor, Progroup Board Ltd. as borrower and original guarantor, the other Guarantors as original guarantors, Goldman Sachs Bank USA as original lender and Goldman Sachs Lending Partners LLC as agent, have entered into the Existing Senior Secured GBP Facility, (iii) the Issuer as company, Progroup Paper PM3 GmbH as borrower, the other Guarantors as original guarantors and Commerzbank Aktiengesellschaft as lender and agent, have entered into the Existing Senior Commerzbank Facilities, and (iv) the Issuer as company and original guarantor, Progroup Paper PM3 GmbH as borrower, the other Guarantors as original guarantors and HSBC Trinkaus & Burkhardt AG as lender and agent, have entered into the Existing Senior Secured HSBC Facility. In addition, the Initial Purchasers or certain of their affiliates are mandated lead arrangers and lenders under the Super Senior Revolving Credit Facility, and such entities may act as counterparties under certain hedging arrangements into which the Group has entered and expects to enter into in the future, and they will receive customary fees for their services in such capacities.

Selling and Transfer Restrictions

The Additional Notes and the Guarantees have not been and will not be registered under the U.S. Securities Act or qualified for sale under the securities laws of any U.S. state or any jurisdiction outside the United States and may not be offered or sold within the United States except to QIBs in reliance on Rule 144A and to non U.S. persons in offshore transactions in reliance on Regulation S. Accordingly, the Additional Notes will be subject to significant restrictions on resale and transfer as described under “*Notice to Investors*”, “*Notice to EEA Investors*”, “*Prohibition of Sales to EEA Retail Investors*” and “*Transfer Restrictions*”. Any offer or sale of Additional Notes in the United States in reliance on Rule 144A will be made by broker dealers who are registered as such under the Exchange Act.

The Additional Notes will constitute a new class of securities with no established trading market. The Initial Purchasers have advised us that, following the completion of this Offering, they currently intend to make a market in the Additional Notes as permitted by applicable laws and regulations. However, the Initial Purchasers are not obligated to do so, and the Initial Purchasers may discontinue any market making activities with respect to the Additional Notes at any time in its sole discretion. Accordingly, no assurance can be given that any market for the Additional Notes will develop, that it will be liquid and that you will be able to sell any of the Additional Notes held by you at a particular time or that the prices that you receive when you sell will be favorable to you. See *“Risk Factors—Risks Related to the Notes—An active trading market may not develop for the Additional Notes, in which case your ability to sell the Additional Notes may be limited”*. Each purchaser of the Additional Notes, by its purchase of the Additional Notes, will be deemed to have made certain acknowledgements, representations, warranties and agreements as set forth under *“Notice to Investors”*, *“Notice to EEA Investors”* and *“Prohibition of Sales to EEA Retail Investors”*.

Each Initial Purchaser has represented, warranted and agreed that it:

- has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the United Kingdom Financial Services and Markets Act 2000 (the **“FSMA”**) received by it in connection with the issuance or sale of any Additional Notes in circumstances in which section 21(1) of the FSMA does not apply to the Issuer or the Guarantors); and
- has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Additional Notes in, from or otherwise involving the United Kingdom.

Each Initial Purchaser has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes to any retail investor in the EEA. For the purposes of this provision, the expression **“retail investor”** means a person who is one (or more) of the following (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, **“MiFID II”**); (ii) a customer within the meaning of Directive 2016/97/EU (as amended), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Directive 2003/71/EC (as amended).

No action has been taken in any jurisdiction, including the United States, Germany and the United Kingdom, by the Issuer or the Initial Purchasers that would permit a public offering of the Additional Notes or the possession, circulation or distribution of this offering memorandum or any other material relating to the Issuer or the Additional Notes in any jurisdiction where action for this purpose is required. Accordingly, the Additional Notes may not be offered or sold, directly or indirectly, and neither this offering memorandum nor any other offering material or advertisements in connection with the Additional Notes may be distributed or published, in or from any country or jurisdiction, except in compliance with any applicable rules and regulations of any such country or jurisdiction. This offering memorandum does not constitute an offer to sell or a solicitation of an offer to purchase in any jurisdiction where such offer or solicitation would be unlawful. Persons into whose possession this offering memorandum comes are advised to inform themselves about and to observe any restrictions relating to the Offering, the distribution of this offering memorandum and resale of the Additional Notes. See *“Notice to the Investors”*, *“Notice to EEA Investors”*, *“Prohibition of Sales to EEA Retail Investors”* and *“Transfer Restrictions”*.

The Issuer and the Guarantors have also agreed that they will not at any time offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any securities under circumstances in which such offer, sale, pledge, contract or disposition would cause the exemption afforded by Section 4(a)(2) of the U.S. Securities Act or the safe harbors of Rule 144A and Regulation S to cease to be applicable to the offer and sale of the Additional Notes.

SERVICE OF PROCESS AND ENFORCEMENT OF CIVIL LIABILITIES

The Issuer and certain of the Guarantors are organized under the laws of Germany. Other Guarantors are incorporated in Poland, the Czech Republic and the United Kingdom. None of the directors, officers or other executives of the Issuer and the Guarantors are residents or citizens of the United States. Therefore, you may be unable to effect service of process within the United States on the directors, officers or executives. Furthermore, since the assets of the Issuer and each of the Guarantors, and its and their respective directors and officers are located outside the United States, any judgment obtained in the United States against the Issuer or a Guarantor or any such other person, including judgments with respect to the payment of principal, premium (if any) and interest on the Notes or any judgment of a U.S. court predicated upon civil liabilities under U.S. Federal or state securities laws, may not be collectible in the United States.

We have been advised by our German counsel that there is doubt as to the enforceability in Germany of civil liabilities based on U.S. federal or state securities laws, either in an original action or in an action to enforce a judgment obtained in U.S. federal or state courts. The United States and Germany currently do not have a treaty providing for the reciprocal recognition and enforcement of judgments, other than arbitration awards, in civil and commercial matters. Consequently, a final judgment by any U.S. federal or state court for payment, whether or not predicated solely upon U.S. federal or state securities laws, would not automatically be enforceable in Germany. A final judgment by a U.S. federal or state court, however, may be recognized and enforced in Germany in an action before a court of competent jurisdiction in accordance with the proceedings set forth by the German Code of Civil Procedure (*Zivilprozessordnung*). In such an action, a German court generally would not reinvestigate the merits of the original matter decided by a U.S. court, except as noted below. The recognition and enforcement of a U.S. judgment by a German court would be conditional upon a number of factors, including the following:

- the judgment being final under U.S. federal or state law;
- the U.S. court having had jurisdiction over the original proceeding under German law;
- the defendant having had the chance to defend herself or himself against an unduly or untimely served complaint;
- the judgment of the U.S. court being consistent with the judgment of a German court or a recognized judgment of a foreign court handed down before the judgment of the U.S. court;
- the matter (*Verfahren*) resulting in the judgment of the U.S. court being consistent with the matter (*Verfahren*) pending before a German court, provided that such German matter was pending before a German court prior to the U.S. court entered its judgment;
- the enforcement of the judgment by the U.S. court being compatible with the substantial foundations of German law, in particular with the civil liberties (*Grundrechte*) guaranteed by virtue of the German Constitution (*Grundgesetz*); and
- generally, the guarantee of reciprocity.

Subject to the foregoing, purchasers of securities may be able to enforce judgments in civil and commercial matters obtained from U.S. federal or state courts in Germany. We cannot, however, assure you that attempts to enforce judgments in Germany will be successful.

In addition, in the past the recognition and enforcement of punitive damages has been denied by German courts as incompatible with the substantial foundations of German law. Moreover, a German court may reduce the amount of damages granted by a U.S. court and recognize damages only to the extent that they are necessary to compensate actual losses or damages.

German civil procedure differs substantially from U.S. civil procedure in a number of respects. With respect to the production of evidence, for example, U.S. federal and state law and the laws of several other jurisdictions based on common law provide for pre-trial discovery, a process by which parties to the proceedings may, prior to trial, compel the production of documents by adverse or third parties and the deposition of witnesses. Evidence obtained in this manner may be decisive in the outcome of any proceeding. No such pre-trial discovery process exists under German law.

We have been advised by French, Czech, Polish and English counsel that similar risks related to enforcing judgments from a U.S. federal or state court exist in such jurisdictions, and we cannot assure you that such risks do not and will not exist in other jurisdictions, including those in which the assets of some or all of our subsidiaries that may guarantee the Notes in the future are located.

LEGAL MATTERS

Certain legal matters in connection with the Offering will be passed upon for us by Mayer Brown LLP and Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, as to matters of German law, and by Mayer Brown International LLP as to matters of U.S. federal law. Certain legal matters in connection with the Offering will be passed upon for the Initial Purchasers by Latham & Watkins LLP, as to matters of German law, and Latham & Watkins (London) LLP as to matters of U.S. federal law.

INDEPENDENT AUDITORS

The consolidated financial statements of the Issuer as of and for the years ended December 31, 2016, 2017 and 2018, which were prepared on the basis of German GAAP and are included in this offering memorandum, have been audited in accordance with Section 317 HGB (German Commercial Code) and German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (*Institut der Wirtschaftsprüfer in Deutschland e.V.*) by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (formerly PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft) (“**PwC**”), independent auditors, as stated in their auditor’s reports appearing herein. Each of the respective auditor’s reports of PwC on the consolidated financial statements refers to the respective group management report of Progroup AG. The group management reports are not reprinted in this offering memorandum. The examination of, and the auditor’s reports upon, such group management reports are required under German auditing standards. This examination was not made in accordance with generally accepted auditing or attestation standards in the United States. Accordingly, PwC does not express any opinion on this information or on the consolidated financial statements included in this offering memorandum, in each case in accordance with U.S. generally accepted auditing standards or U.S. attestation standards.

AVAILABLE INFORMATION

Each purchaser of the Additional Notes from the Initial Purchasers will be furnished with a copy of this offering memorandum and any amendments or supplements to this offering memorandum. Each person receiving this offering memorandum and any related amendments or supplements to the offering memorandum acknowledges that:

- such person has been afforded an opportunity to request from us and has received and reviewed all additional information considered by it to be necessary to verify the accuracy and completeness of the information contained herein;
- such person has not relied on information provided or representations made by the Initial Purchasers or any person affiliated with the Initial Purchasers in connection with its investigation of the accuracy of such information or its investment decision; and
- except as provided pursuant to the first bullet above, no person has been authorized to give any information or to make any representation concerning the Additional Notes offered hereby other than those contained herein and, if given or made, such other information or representation should not be relied upon as having been authorized by us or the Initial Purchasers.

For so long as any of the Additional Notes are “restricted securities” within the meaning of the Rule 144(a)(3) under the U.S. Securities Act, we will, during any period in which we are neither subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, nor exempt from the reporting requirements under Rule 12g3-2(b) of the Exchange Act, provide to the holder or beneficial owner of such restricted securities or to any prospective purchaser of such restricted securities designated by such holder or beneficial owner, in each case upon the written request of such holder, beneficial owner or prospective purchaser, the information required to be provided by Rule 144A(d)(4) under the U.S. Securities Act.

Pursuant to the Conditions of Issue and so long as the Notes are outstanding, anyone who has received this offering memorandum may, following the issue date of the Additional Notes, obtain a copy of the Conditions of Issue, the Notes, the Guarantees, the Security Documents (as defined in the Intercreditor Agreement) and the Intercreditor Agreement, without charge, in each case, by writing to the Paying Agent. Copies of such documents are also available at the specified office of the Paying Agent and the registered office of the Issuer.

Pursuant to the Conditions of Issue and so long as the Notes are outstanding, we will furnish periodic information to Holders of the Notes. See “*Description of the Notes—Covenants—Reports*”.

The additional documents and information specified in “*Listing and General Information*” and not included in this offering memorandum will be available to be inspected and obtained by Holders at the specified office of the Paying Agent during normal business hours on any weekday.

LISTING AND GENERAL INFORMATION

Listing

Application will be made to The International Stock Exchange Authority Limited (the “**Authority**”) for the listing of and permission to deal in the Additional Notes on the Official List of The International Stock Exchange (the “**Exchange**”). There is no assurance that the Additional Notes will be listed on the Official List of the Exchange, that such permission to deal in the Additional Notes will be granted, or that such listing will be maintained.

Neither the admission of the Additional Notes to the Official List of the Exchange nor the approval of this offering memorandum pursuant to the listing requirements of the Authority shall constitute a warranty or representation by the Authority as to the competence of the service providers to, or any other party connected with, the Issuer, the adequacy and accuracy of information contained in this offering memorandum or the suitability of the Issuer for investment or for any other purpose.

The Additional Notes are only intended to be offered in the primary market to, and held by, investors who are particularly knowledgeable in investment matters.

Listing information

Copies of the following documents may be obtained at the registered office of the Issuer during normal business hours for a period of 14 days following the grant of listing of the Additional Notes:

- the organizational documents of the Issuer;
- the consolidated financial statements included in this offering memorandum; and
- our most recent audited consolidated financial statements, any interim condensed consolidated financial information published by the Issuer and the most recent audited unconsolidated annual financial statements, prepared in accordance with the German Commercial Code (*Handelsgesetzbuch; HGB*) published by the Issuer.

The Issuer has appointed Carey Olsen Corporate Finance Limited as listing agent (the “**Listing Agent**”). The Issuer reserves the right to change this appointment in accordance with the terms of the Conditions of Issue. Application may also be made to the Authority to have the Additional Notes removed from listing on the Official List of the Exchange, including if necessary to avoid any new withholding taxes in connection with the listing.

The Issuer accepts responsibility for the information contained in this offering memorandum. The Issuer declares that, having taken all reasonable care to ensure that such is the case, to the best of its knowledge, the information contained in this offering memorandum is in accordance with the facts and does not omit anything likely to affect its import. This offering memorandum may only be used for the purposes for which it has been published.

Clearing Information

The Additional Notes have been accepted for clearance and settlement through the facilities of Clearstream Banking and will have the following ISINs and common codes:

	ISIN	Common Code
Regulation S Global Notes	DE000A2G8WA3	179467780
Rule 144A Global Notes		

Any Additional Notes issued pursuant to Regulation S will share the same ISIN and the same common code as the Existing Notes issued pursuant to Regulation S, and will be fungible with the Existing Notes issued pursuant to Regulation S as of their issuance.

Any Additional Notes issued pursuant to Rule 144A will initially have a separate ISIN and common code from the Existing Notes issued pursuant to Rule 144A, until the termination of certain U.S. selling restrictions one year after the issue date of the Additional Notes. After the expiration of this one year period, the Additional Notes issued pursuant to Rule 144A and the Existing Notes issued pursuant to Rule 144A will share the same ISIN and common code as the Existing Notes issued pursuant to Rule 144A, and will become fungible with the Existing Notes issued pursuant to Rule 144A. The ISIN for

the Existing Notes issued pursuant to Rule 144A is DE000A2G8WB1 and the common code for the Existing Notes issued pursuant to Rule 144A is 179467810.

Legal Information

Except as disclosed in this offering memorandum:

- there has been no material adverse change in the prospects of the Issuer since December 31, 2018, the date of the Issuer's most recent audited consolidated financial statements; and
- none of the Issuer or the Guarantors or any of their respective subsidiaries has been involved in any litigation, administrative proceeding or arbitration relating to claims or amounts which are material in the context of the issue of the Additional Notes, and, so far as the Issuer, the Guarantors and their respective subsidiaries are aware, no such litigation, administrative proceeding or arbitration is pending or threatened.

The Issuer accepts responsibility for the information contained in this offering memorandum. The information contained in this offering memorandum is in accordance with the facts and does not omit anything likely to affect the import of this offering memorandum.

Authorization

The creation and issuance of the Additional Notes was authorized by the Supervisory Board of Progroup AG on May 30, 2019. The Guarantees were authorized by resolution of the board of directors (or equivalent body), where applicable, and, where required, by the shareholders' meeting, of each of the Guarantors.

General information on the Issuer and the Guarantors

Progroup AG

The Issuer was established under the name PROWELL Papierverarbeitung GmbH as a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*) on December 3, 1991, and was converted into a corporation (*Aktiengesellschaft, AG*) with an indefinite duration on December 6, 2007. Based on a merger agreement dated July 24, 2018 and certified by a notary public, Proservice GmbH and PROfund GmbH were merged retrospectively as at January 1, 2018 with Progroup AG (merger by absorption). It is registered in the commercial register of the local court of Landau/Pfalz, Germany, under the register number HRB 2268. It has a registered share capital of €7,588,236. The Issuer does not have any convertible debt securities, exchangeable debt securities or debt securities with warrants attached outstanding. It has one class of shares, i.e. common shares. The Issuer's business address is Horstring 12, 76829 Landau/Pfalz, Germany. The phone number of the Issuer is +49 (0) 6341 5576 0 and its corporate website is www.progroup.ag.

The nature and purpose of the Issuer's business is the acquisition and administration of participations in other companies, in particular of companies of the paper and corrugated board industry including companies providing services of all kind to companies of the paper and corrugated board industry, and furthermore the assumption of management and administration functions for such companies.

Progroup Paper PM1 GmbH

Progroup Paper PM1 GmbH is a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*) incorporated under the laws of Germany on July 3, 1998. It is registered in the commercial register of the local court of Stendal, Germany, under registration number HRB 2950. It has a registered share capital of €7,415,000. Progroup Paper PM1 GmbH's business address is Lindenalle 28, 39288 Burg, Germany, and its phone number is +49 (0) 3921 4566 500 0. The activities (*Geschäftstätigkeit*) of the company comprise, among others, the production and distribution of containerboard.

Progroup Paper PM2 GmbH

Progroup Paper PM2 GmbH is a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*) incorporated under the laws of Germany on July 11, 2007. It is registered in the commercial register of the local court of Frankfurt (Oder), Germany, under registration number HRB 11741 FF. It has a registered share capital of €50,000. Progroup Paper PM2 GmbH's business address is Oderlandstraße 110, 15890 Eisenhüttenstadt, Germany, and its phone number is +49 (0) 3364 7712 200 0. The activities

(*Geschäftstätigkeit*) of the company comprise, among others, the production and distribution of containerboard.

Progroup Paper PM3 GmbH

Progroup Paper PM3 GmbH is a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*) incorporated under the laws of Germany on April 10, 2018. It is registered in the commercial register of the local court of Frankfurt (Oder), Germany, under registration number HRB 25562. It has a registered share capital of €25,000. Progroup Paper PM3 GmbH's business address is Lindenallee 28, 39288 Burg, Germany, and its phone number is +49 (0) 3921 4566 500 0. The activities (*Geschäftstätigkeit*) of the company comprise, among others, the production and distribution of containerboard.

Progroup Board GmbH

Progroup Board GmbH is a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*). It was established under the name Progroup Board Wellpapperzeugung GmbH & Co. KG as a limited partnership with a limited liability company as a general partner (*GmbH & Co. KG*) on July 11, 2007, and was converted into a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*) on August 19, 2014. By way of a merger agreement certified by a notary public and dated 24 July 2018 (as amended on 10 August 2018 and 17 August 2018), Projekt 3 CZ Beteiligungs GmbH was merged with Progroup Board GmbH with retrospective effect as at 1 January 2018. It is registered in the commercial register of the local court of Landau/Pfalz, Germany, under registration number HRB 31545. It has a registered share capital of €1,000,000. Progroup Board GmbH's business address is Prowell-Straße 1, 76877 Offenbach/Queich, Germany, and its phone number is +49 (0) 6348 6109 600. The activities (*Geschäftstätigkeit*) of the company comprise, among others, the production and distribution of corrugated cardboard.

Progroup Logistics GmbH

Progroup Logistics GmbH is a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*) incorporated under the laws of Germany on July 3, 1998. It is registered in the commercial register of the local court of Stendal, Germany, under the registration number HRB 2957. It has a registered share capital of €500,000. PROLOGISTIK GmbH's business address is Lindenallee 30, 39288 Burg, Germany, and its phone number is +49 (0) 3921 4566 400. The activities (*Geschäftstätigkeit*) of the company comprise, among others, logistics management.

Progroup Board s.r.o.

Progroup Board s.r.o. is a limited liability company (*společnost s ručením omezeným, s.r.o.*) incorporated under the laws of the Czech Republic on October 25, 2000. It is registered in the commercial register of the local court of Plzen, Czech Republic, under registration number 26207281. It has a registered share capital of CZK20,000,000. Progroup Board s.r.o.'s business address is Arbesova 1003/III, 33701 Rokycany, Czech Republic, and its phone number is +420 (0) 371 744 400. The activities of the company comprise, among others, the production and distribution of corrugated cardboard.

Progroup Board sp. z o.o.

Progroup Board sp. z o.o. is a limited liability company (*spółka z ograniczoną odpowiedzialnością, sp. z o.o.*) incorporated under the laws of Poland on May 30, 2001. It is registered in the commercial register of the local court of Lodz, Poland, under registration number 15679. It has a registered share capital of PLN 70,010,000. Progroup Board sp. z o.o.'s business address is Smolice 10, 95-010 Strykow, Poland, and its phone number is +48 (0) 422035 700. The activities of the company comprise, among others, the production and distribution of corrugated cardboard.

Progroup Board Ltd.

Progroup Board Ltd. is a limited liability company (*Limited Company, Ltd.*) incorporated under the Companies Act 1985 of the United Kingdom on December 4, 2006. It is registered at Companies House, Cardiff, United Kingdom, under registration number 06018149. It has a registered share capital of £6,510,000. Progroup Board Ltd.'s business address is Pioneer 210, North Road, Ellesmere Port, Cheshire CH651 AQ United Kingdom, and its phone number is +44 (0)151 357 4230. The activities of the company comprise, among others, the production and distribution of corrugated cardboard.

Progroup Power 1 GmbH

Progroup Power 1 GmbH is a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*) incorporated under the laws of Germany on August 23, 2006. It is registered in the commercial register of the local court of Frankfurt (Oder), Germany, under registration number HRB 11743 FF. It has a registered share capital of €25,000. Progroup Power 1 GmbH's business address is Oderlandstraße 109, 15890 Eisenhüttenstadt, Germany, and its phone number is +49 (0) 3364 2851 100. The activities (*Geschäftstätigkeit*) of the company comprise, among others, the establishment and operation of the CHP for the thermal utilization of refuse-derived fuels and the supply of steam to Progroup Paper PM2 GmbH and of electricity to the public grid.

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The following English-language consolidated financial statements are translations of the German-language audited consolidated financial statements.

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**Condensed Consolidated Interim Financial Statements
as of and for the three months ended
March 31, 2019**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED BALANCE SHEET
AS OF MARCH 31, 2019

<u>Assets</u>	<u>03/31/2019</u>	<u>12/31/2018</u>
	€	€
A. Fixed assets		
I. Intangible assets		
1. Purchased concessions, industrial property and similar rights and assets, and licenses in such rights and assets .	16,738,201.09	17,415,054.88
	16,738,201.09	17,415,054.88
II. Tangible assets		
1. Land and buildings including buildings on leasehold land	215,712,251.40	187,652,472.36
2. Technical equipment and machinery	416,206,104.45	388,188,678.36
3. Other equipment, factory and office equipment	7,837,882.82	7,871,768.29
4. Prepayments and constructions in process	151,153,076.61	141,056,295.45
	790,909,315.28	724,769,214.46
	807,647,516.37	742,184,269.34
B. Current assets		
I. Inventories		
1. Raw materials, consumables and supplies	54,446,016.85	54,351,998.97
2. Work in process	46,990,565.84	50,136,169.21
3. Finished goods	6,529,743.99	5,957,285.07
4. Prepayments	35,069.11	66,766.87
	108,001,395.79	110,512,220.12
II. Receivables and other assets		
1. Trade receivables	128,229,111.40	108,755,625.71
2. Receivables from affiliated companies	7,139.99	3,119.58
3. Other assets	23,442,053.83	18,214,150.57
	151,678,305.22	126,972,895.86
III. Cash in hand, bank balances	135,993,381.34	148,431,079.82
	395,673,082.35	385,916,195.80
C. Prepaid expenses and deferred charges	20,628,266.23	19,366,974.46
D. Deferred tax assets	0.00	36,133.03
Total assets	1,223,948,864.95	1,147,503,572.63

* Unaudited consolidated interim financial information

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED BALANCE SHEET (Continued)
AS OF MARCH 31, 2019

<u>Equity and liabilities</u>	<u>03/31/2019</u>	<u>12/31/2018</u>
	€	€
A. Shareholder's equity		
1. Subscribed capital	7,588,236.00	7,588,236.00
2. Capital reserve	75,414,347.76	75,414,347.76
3. Revenue reserves	1,407,760.39	1,407,760.39
4. Currency translation adjustment	– 2,146,411.02	– 2,709,153.22
5. Consolidated net retained profits	267,228,832.22	233,817,358.68
	349,492,765.35	315,517,549.61
B. Investment grants for fixed assets	3,680,320.00	3,778,908.00
C. Provisions		
1. Provisions for pensions	355,340.56	280,340.56
2. Tax provisions	34,344,955.77	33,951,498.50
3. Other Provisions	60,193,155.69	57,513,680.42
	94,893,452.02	91,745,519.48
D. Liabilities		
1. Bonds	600,000,000.00	600,000,000.00
2. Bank loans	102,007,248.69	74,033,105.46
3. Trade payables	54,430,153.93	49,786,788.01
4. Other liabilities	18,602,645.62	12,557,978.18
	775,040,048.24	736,377,871.65
E. Deferred income	46,666.67	82,723.89
F. Deferred tax liabilities	795,612.67	0.00
Total equity and liabilities	1,223,948,864.95	1,147,503,572.63

* Unaudited consolidated interim financial information

**Consolidated Income Statement
for the three months ended
March 31, 2019**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED INCOME STATEMENT
FOR THE THREE MONTHS ENDED MARCH 31, 2019

<u>Consolidated Income Statement</u>	<u>1/1 to 3/31/2019</u>	<u>1/1 to 3/31/2018</u>
	€	€
1. Sales	245,356,443.38	243,786,327.39
2. Increase/decrease in finished goods and work in process	– 2,573,144.45	– 3,607,869.85
3. Other own work capitalised	3,077,377.22	1,521,110.69
4. Other operating income	3,335,152.73	1,573,172.04
5. Costs of materials		
a) Costs of raw materials, consumables and supplies	– 94,807,913.14	– 97,849,581.10
b) Costs of purchased services	– 22,983,263.25	– 21,470,998.33
	– 117,791,176.39	– 119,320,579.43
6. Personnel expenses		
a) Wages and salaries	– 18,177,670.85	– 15,547,756.41
b) Social security and pensions	– 3,174,129.37	– 2,819,056.34
	– 21,351,800.22	– 18,366,812.75
7. Amortisation and depreciation of fixed intangible and tangible assets	– 13,839,317.12	– 12,292,970.25
8. Other operating expenses	– 42,500,993.60	– 42,355,139.29
9. Other interest and similar income	18,866.66	10,296.31
10. Interest and similar expenses	– 6,089,079.94	– 6,006,613.32
11. Taxes on income	– 13,902,899.05	– 12,310,461.77
12. Earning after taxes	33,739,429.22	32,630,459.77
13. Other taxes	– 327,955.67	– 350,014.48
14. Consolidated net income for the period	33,411,473.55	32,280,445.29
15. Consolidated unappropriated retained earnings brought forward	233,817,358.68	193,358,116.68
16. Consolidated net retained profits	267,228,832.23	225,638,561.97

* Unaudited consolidated interim financial information

**Selected Explanatory Notes to the Condensed Consolidated Interim Financial Statements
as of and for the three months ended March 31, 2019**

PROGROUP AG
OFFENBACH A. D. QUEICH
COMMERCIAL REGISTER LANDAU, HRB NO. 2268
SELECTED EXPLANATORY INFORMATION FROM THE NOTES FOR
THE PERIOD FROM JANUARY 1 TO MARCH 31, 2019

Accounting and valuation methods

The quarterly consolidated financial statements as at March 31, 2019 and the audited consolidated financial statements as at December 31, 2018 have been prepared in accordance with the applicable provisions of the First and Second Sections of the Third Book of the German Commercial Code (*Handelsgesetzbuch—HGB*) and the supplementary provisions of the German Stock Corporation Act (*Aktiengesetz—AktG*), and in addition, the quarterly consolidated financial statements have been prepared in application, *mutatis mutandis*, of GAS 16 (German Accounting Standard) and GAAS 7 (German Amendment Accounting Standard).

The accounting and valuation policies applied are unchanged from those applied in the consolidated financial statements as at December 31, 2018. A detailed presentation of these methods is included in the notes to the consolidated financial statements as at December 31, 2018. Income taxes are calculated on the basis of actual results and fixed tax rates. The calculation method corresponds to and is consistent with the calculation method used for the annual financial statements. DRS 25 will be applied for the first time in fiscal year 2019.

Scope of Consolidation

With effect from February 19, 2019, Progroup Board GmbH established Progroup Board Kft. with its registered office in Hungary (Budapest) and a share capital of EUR 25,000.00, which is thus also included in the scope of consolidation. The company was established for the purpose of acquiring real property, but had not yet developed any further business activities as at March 31, 2019 and is therefore managed as an inactive company.

Key business transactions 2019

Investment in a new Progroup Board plant in the United Kingdom

On April 18, 2017, Progroup AG published its plans for the construction of a new corrugated board production site in the United Kingdom. As part of the Two Twentyfive strategy concept, a new corrugated board production site was built at the Ellesmere Port site, UK by Progroup Board Ltd. with an investment volume of approx. GBP 75 to 80 million. Construction began in the fourth quarter of 2017; production commenced in January 2019.

Investment in a new paper machine in Germany

On February 16, 2018, Progroup AG published its plans for the construction of a new paper machine in Germany. As part of the Two Twentyfive strategy concept, a new paper machine will be installed at the Sandersdorf-Brehna site, Germany by 2020. Preparatory and planning work for the construction of the plant began in the second quarter of 2018. Construction commenced in the first quarter of 2019.

Commissioning is planned for the second half of 2020.

Investment in a new Progroup Board plant in Germany

On September 10, 2018, Progroup AG published its plans for the construction of a new corrugated board production site in Germany. As part of the Two Twentyfive strategy concept, Progroup Board GmbH is building a new corrugated board format plant at the Eisfeld, Germany site. Construction began in the fourth quarter of 2018; production is scheduled to commence in the fourth quarter of 2019 or the first quarter of 2020.

PROGROUP AG
OFFENBACH A. D. QUEICH
COMMERCIAL REGISTER LANDAU, HRB NO. 2268
SELECTED EXPLANATORY INFORMATION FROM THE NOTES FOR
THE PERIOD FROM JANUARY 1 TO MARCH 31, 2019 (Continued)

Explanation of the material changes in balance sheet and income statement items from January 1 to March 31, 2019 compared with the figures presented for the previous year

Recycled paper is the main raw material for the production of corrugated board base paper, which is then the main raw material for corrugated board production in the subsequent value-added stage. Mainly due to decreases in demand for recycled paper from regions outside Europe, prices for recycled paper declined during the first half of 2018. Since then, prices for recycled paper have stabilised at a low level. In the first quarter of 2019, prices were at the level of the fourth quarter of 2018 (–1%), but well below the level of the prior year's quarter.

Following price increases in the first quarter of 2018, prices for corrugated base paper stabilised in the second and third quarters of 2018. Since the fourth quarter of 2018, prices have been falling (Q1 2019 compared to Q4 2018 –8%).

The price development for corrugated board typically follows the price development for corrugated base paper with a slight time lag and also showed price increases throughout 2018. In line with the further paper price development, the price level fell since the fourth quarter of 2018. In the first quarter of 2019, the price level was 3% below the level of the fourth quarter of 2018.

Sales increased by 0.6% (EUR 1.6 million) to EUR 245.4 million in the first three months of 2019 from EUR 243.8 million in the first three months of 2018. The increase in sales is exclusively attributable to further strong growth of our corrugated board sales (+5% or EUR 11 million). Our external sales of corrugated base paper continued to decline (by 64.7% or EUR 10 million) as internal demand continued to grow with the growth of Progroup Board and the scarcity of corrugated base paper on the market.

Other operating income increased by 112% (EUR 1.8 million) to EUR 3.3 million in the first three months of 2019, mainly as a result of income from the reversal of provisions, income from other periods and an increase in income from exchange rate differences.

The **cost of materials** decreased slightly by 1.3% (EUR 1.5 million) to EUR 117.8 million compared to the first three months of 2018. This reduction is attributable to lower costs of raw materials, consumables and supplies.

Personnel expenses increased by 16.3% (EUR 3.0 million) to EUR 21.4 million in the first three months of 2019 compared to the same period in 2018. This increase is mainly attributable to a higher average number of employees due to the expansion of the workforce in the growth projects in Eisfeld, Germany and Sandersdorf-Brehna, Germany. Besides, additional positions were created in the administrative and group corporate divisions reflecting the strong growth.

Other operating expenses increased slightly by 0.3% (EUR 0.1 million) to EUR 42.5 million in the first three months of 2019, primarily due to a EUR 1.7 million increase in outbound freight in the first three months of 2019 compared to the prior-year period and an increase of expenses for maintenance by EUR 3.3 million compared to the prior year period. The increase in expenses for maintenance is mainly attributable to the planned downtimes due to scheduled maintenance of both paper machines in March 2019. Freight expenses increased mainly due to higher freight volumes and higher freight rates. Compared to previous year contrary effects were generated by the absence of extraordinary expenses of EUR

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SELECTED EXPLANATORY INFORMATION FROM THE NOTES FOR
THE PERIOD FROM JANUARY 1 TO MARCH 31, 2019 (Continued)

6.8 million in the form of consulting and transaction costs for the Senior Secured Notes issued in March 2018.

Other operating expenses (In KEUR)	January–March	
	2019	2018
Freight expenses	18,779	17,126
Maintenance and repair	10,965	7,642
Other	8,470	7,005
Extraordinary expenses ⁽¹⁾	65	6,900
Rental and leasing costs	2,208	1,865
Expenses from exchange rate differences	199	780
Legal and consulting fees	1,235	779
Expenses from other periods	580	258
Other operating expenses	42,501	42,355

Compared to the first three months of 2018, **EBITDA**¹ decreased by 3.6% (EUR 2.5 million) to EUR 67.2 million. This is mainly due to the scheduled downtimes of both paper machines in March 2019 and the higher average number of employees and industrial workers. In the first quarter, the good operating performance with volume growth at Progroup Board had an offsetting effect on EBITDA.

The negative **interest result** deteriorated by 1.4% (EUR 0.01 million) to EUR – 6.1 million compared with the first three months of the prior year.

In the first three months of 2019, **consolidated net income for the period** increased by EUR 1.1 million year-on-year to EUR 33.4 million.

As a result of the slightly stronger result in the first three months of 2019, **taxes on income** increased accordingly by EUR 1.6 million to EUR 13.9 million.

Fixed assets amounted to EUR 807.6 million as at March 31, 2019, compared with EUR 742.2 million as at December 31, 2018. The increase (8.8%) is mainly attributable to the construction of the new PM3 paper machine and the PW12 and PW13 Progroup Board plants.

Inventories amounted to EUR 108.0 million as at March 31, 2019 which is below the level as at December 31, 2018 (– 2.3% or EUR – 2.5 million), mainly attributable to work in process. This decline is mainly due to a lower stock of corrugated base.

Trade receivables increased to EUR 128.2 million (+ 17.9% or EUR 19.5 million) as at March 31, 2019, mainly due to year-end effects and lower sales in December.

Other assets increased by EUR 5.2 million or 28.7% to EUR 23.4 million as at March 31, 2019, mainly in connection with an increase in other receivables from sales tax prepayments.

Cash in hand and bank balances amounted to EUR 136.0 million as at March 31, 2019, down 8.4% (EUR 12.4 million) compared to December 31, 2018.

Prepaid expenses and deferred charges increased by EUR 1.3 million to EUR 20.6 million as at March 31, 2019.

Shareholder's Equity increased on the basis of the consolidated result by 10.8% from EUR 315.5 million as at December 31, 2018 to EUR 349.5 million as at March 31, 2019.

¹ EBITDA (not a German GAAP measure) is calculated as sales, plus increase/decrease in finished goods and work in process, plus other operating income (excluding any extraordinary income), plus other own work capitalised, minus costs of materials, minus personnel expenses, minus other operating expenses, minus other taxes, plus extraordinary expenses. The extraordinary expenses reported under other expenses (§ 285 no. 31 HGB) correspond to the extraordinary expenses in the reporting period in accordance with the definition of EBITDA.

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OFFENBACH A. D. QUEICH
COMMERCIAL REGISTER LANDAU, HRB NO. 2268
SELECTED EXPLANATORY INFORMATION FROM THE NOTES FOR
THE PERIOD FROM JANUARY 1 TO MARCH 31, 2019 (Continued)

Tax provisions increased by EUR 0.4 million or 1.1% to EUR 34.3 million as at March 31, 2019 due to the higher tax burden attributable to the slightly higher result.

Other provisions as at March 31, 2019 increased by EUR 2.7 million or 4.7% to EUR 60.2 million as at the reporting date, mainly due to an increase in personnel provisions and provisions for outstanding invoices for expenses.

As at March 31, 2019, **bank loans** increased by EUR 28.0 million to EUR 102.0 million due to a drawdown of a loan of EUR 30 million to finance the construction of the PM3 paper machine. Contrary effects came from scheduled repayments of EUR 2.2 million on the Senior Secured PLN Facilities.

The increase in **trade payables** by EUR 4.6 million or 9.3% to EUR 54.4 million as at March 31, 2019 is mainly due to the current construction projects for new plants.

The increase in **other liabilities** by EUR 6.0 million to EUR 18.6 million as at March 31, 2019 is mainly attributable to higher accrued interest for the bonds as well as higher liabilities from sales tax payments.

Deferred tax liabilities increased by EUR 0.8 million as at March 31, 2019.

This resulted mainly from the acquisition of the Progroup Power 1 GmbH combined heat and power plant. Netted against deferred tax assets from the use of loss carryforwards and the elimination of intercompany profits, deferred tax liabilities amount to EUR 0.8 million.

Information on material risks

There have been no significant changes with regard to the risks for Progroup AG in the period from January 1 through March 31, 2019 compared with the year ended December 31, 2018.

Report on subsequent events

On May 2, 2019, the Annual General Meeting resolved to pay a dividend in the form of a gross dividend of EUR 2.65 (gross) per share entitled to dividends from the net retained profits of EUR 210,329,798.99 reported in the annual financial statements for the 2018 financial year. Thus, the total amount of the distribution, which was also made on May 2, 2019, amounted to EUR 20,108,825.40.

Management Board

The following members of the Management Board as at March 31, 2019 were:

Jürgen Heindl, Dipl.-Wirt.-Ing., Neustadt a. d. Weinstraße (Chairman of the Management Board)

Dr. Volker Metz, Dipl.-Kfm., Hochdorf-Assenheim (CFO—Chief Financial Officer)

Maximilian Heindl, Dipl.-Wirt.-Ing., Neustadt a. d. Weinstraße (CDO—Chief Development Officer)

Philipp Kosloh, Dipl.-Ing., Speyer am Rhein (COO—Chief Operating Officer)

Offenbach a. d. Queich, May 20, 2019

Management Board

Jürgen Heindl

Dr. Volker Metz

Maximilian Heindl

Philipp Kosloh

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED CASH FLOW STATEMENT
FOR THE THREE MONTHS ENDED MARCH 31, 2019

Progroup AG, Offenbach an der Queich

<u>Consolidated Cash Flow Statement</u>	<u>ermittelt</u>	<u>fest eingegeben</u>
	<u>1/1 to 3/31/2019</u>	<u>1/1 to 3/31/2018</u>
	<u>K€</u>	<u>K€</u>
1. Cash flows from operating activities		
Consolidated net income for the period	33,411	32,280
Amortisation and depreciation of fixed assets	13,839	12,293
Increase (+)/decrease (–) in provisions	– 597	– 3,155
Other non-cash expenses (+)/income (–)	872	336
Increase (–)/decrease (+) in inventories, trade receivables and other assets**	– 23,458	– 34,110
Increase (+)/decrease (–) in trade payables and other liabilities**	– 2,703	1,779
Interest expenses (+)/income (–)	6,070	5,996
Expenditure (+)/income (–) of exceptional size or incidence	65	6,900
Income tax expenses (+)/income (–)	13,903	12,310
Income taxes paid (–)	– 9,327	– 3,409
Cash flows from operating activities	32,075	31,220
2. Cash flows from investing activities		
Payments (–) to acquire intangible fixed assets	– 30	– 58
Payments (–) to acquire tangible fixed assets	– 70,899	– 18,666
Interest received (+)	22	10
Cash flows from investing activities	– 70,907	– 18,714
3. Cash flows from financing activities		
Proceeds (+) from the issuance of bonds and borrowings	30,000	450,000
Cash repayments (–) of bonds and borrowings	– 2,174	– 1,983
Cash payments (–) relating to expenditure of exceptional size or incidence	0	– 3,859
Interest paid (–)	– 1,951	– 20,891
Cash flows from financing activities	25,875	423,267
4. Cash funds at end of period		
Net change in cash funds	– 12,957	435,773
Effect on cash funds of exchange rate movements	519	– 319
Cash funds at beginning of period	148,431	117,946
Cash funds at end of period	135,993	553,400
5. Composition of cash funds		
Cash and cash equivalents	135,993	553,400
Cash funds at end of period	135,993	553,400

* Unaudited consolidated interim financial information

** not attributable to investing or financing activities

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
FOR THE THREE MONTHS ENDED MARCH 31, 2019

<u>Consolidated Statement of Changes in Equity</u>	<u>Subscribed capital</u>	<u>Capital reserve</u>	<u>Revenue reserves</u>	<u>Consolidated net retained profits</u>	<u>Currency translation adjustment</u>	<u>Group equity</u>
	<u>K€</u>	<u>K€</u>	<u>K€</u>	<u>K€</u>	<u>K€</u>	<u>K€</u>
January 1, 2019	7,588	75,414	1,408	233,817	– 2,709	315,518
Consolidated net profit for the period .	0	0	0	33,412	0	33,412
Other changes	0	0	0	0	563	563
March 31, 2019*	7,588	75,414	1,408	267,229	– 2,146	349,493

* Unaudited consolidated interim financial information

**Consolidated Financial Statements
for the Financial Year from
January 1 to December 31, 2018**

Assets

	31/12/2018	31/12/2017
	€	€
A. Fixed assets		
I. Intangible assets		
1. Purchased concessions, industrial property and similar rights and assets, and licenses in such rights and assets . .	17,415,054.88	19,774,377.20
	17,415,054.88	19,774,377.20
II. Tangible assets		
1. Land and buildings including buildings on leasehold land	187,652,472.36	184,496,574.12
2. Technical equipment and machinery	388,188,678.36	397,048,518.64
3. Other equipment, factory and office equipment	7,871,768.29	6,903,878.67
4. Prepayments and constructions in process	141,056,295.45	32,719,703.85
	724,769,214.46	621,168,675.28
III. Financial assets		
1. Shares in affiliated companies	0.00	37,375.00
	0.00	37,375.00
	742,184,269.34	640,980,427.48
B. Current assets		
I. Inventories		
1. Raw materials, consumables and supplies	54,351,998.97	53,984,594.71
2. Work in process	50,136,169.21	27,670,803.17
3. Finished goods	5,957,285.07	5,061,384.60
4. Prepayments	66,766.87	147,495.16
	110,512,220.12	86,864,277.64
II. Receivables and other assets		
1. Trade receivables	108,755,625.71	78,858,760.03
2. Receivables from affiliated companies	3,119.58	39,495.50
3. Other assets	18,214,150.57	19,893,053.09
	126,972,895.86	98,791,308.62
III. Cash in hand, bank balances	148,431,079.82	117,946,188.56
	385,916,195.80	303,601,774.82
C. Prepaid expenses and deferred charges	19,366,974.46	916,823.24
D. Deferred tax assets	36,133.03	857,374.62
Total assets	1,147,503,572.63	946,356,400.16

Equity and liabilities

	31/12/2018	31/12/2017
	€	€
A. Shareholder's equity		
I. Subscribed capital	7,588,236.00	7,588,236.00
II. Capital reserve	75,414,347.76	75,414,347.76
III. Revenue reserves	1,407,760.39	1,407,760.39
IV. Currency translation adjustment	– 2,709,153.22	– 454,362.80
V. Consolidated net retained profits	233,817,358.68	193,358,116.68
	315,518,549.61	277,314,098.03
B. Investment grants for fixed assets	3,778,908.00	2,685,452.00
C. Provisions		
1. Provisions for pensions	280,340.56	172,635.98
2. Tax provisions	33,951,498.50	13,732,074.69
3. Other Provisions	57,513,680.42	47,628,140.41
	91,745,519.48	61,532,851.08
D. Liabilities		
1. Bonds	600,000,000.00	495,000,000.00
2. Bank loans	74,033,105.46	42,518,553.99
3. Trade payables	49,786,788.01	51,524,270.14
4. Other liabilities	12,557,978.18	12,160,973.83
	736,377,871.65	601,203,797.96
E. Deferred income	82,723.89	3,620,201.09
Total equity and liabilities	1,147,503,572.63	946,356,400.16

**Consolidated Income Statement
for the Period from
January 1 to December 31, 2018**

Consolidated Income Statement

	2018	2017
	€	€
1. Sales	966,118,121.20	804,256,106.71
2. Increase/decrease in finished goods and work in process	23,361,266.51	10,298,027.90
3. Other own work capitalised	7,573,297.98	2,637,490.27
4. Other operating income	17,725,167.35	17,603,469.18
5. Costs of materials		
a) Costs of raw materials, consumables and supplies	– 400,078,578.00	– 361,658,663.22
b) Costs of purchased services	– 93,562,663.64	– 68,822,103.75
	– 493,641,241.64	– 430,480,766.97
6. Personnel expenses		
a) Wages and salaries	– 67,540,598.17	– 58,293,848.15
b) Social security and pensions	– 11,384,559.54	– 10,031,738.50
	– 78,925,157.71	– 68,325,586.65
7. Amortisation and depreciation of		
a) Tangible and intangible fixed assets	– 51,752,772.07	– 50,032,404.06
b) Current assets to the extent that they exceed normal depreciation	– 6,400,324.91	0.00
	– 58,153,096.98	– 50,032,404.06
8. Other operating expenses	– 168,799,765.47	– 160,425,107.66
9. Other interest and similar income	85,965.29	65,048.50
10. Interest and similar expenses	– 32,061,814.21	– 23,677,768.98
11. Taxes on income	– 54,865,007.95	– 28,057,517.77
12. Earnings after taxes	128,417,734.37	73,860,990.47
13. Other taxes	– 1,452,601.97	– 1,449,456.64
14. Consolidated net income for the period	126,965,132.40	72,411,533.83
15. Consolidated unappropriated retained earnings brought forward	106,852,226.28	120,946,582.85
16. Consolidated net retained profits	233,817,358.68	193,358,116.68

**Notes to the Consolidated Financial Statements
For Financial Year 2018**

**PROGROUP AG,
Offenbach a. d. Queich,
Commercial Register Landau, HRB No. 2268
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

A. GENERAL INFORMATION

The consolidated financial statements of Progroup AG, comprising the consolidated balance sheet, consolidated income statement, notes to the consolidated financial statements, the consolidated cash flow statement and the consolidated statement of changes in equity, have been prepared in accordance with the applicable provisions of Parts One and Two of the Third Book of the Handelsgesetzbuch (HGB—German Commercial Code) and the supplementary provisions of the Aktiengesetz (AktG—German Stock Corporation Act). The previous year's figures are stated for comparative purposes.

In the interest of greater clarity and transparency, below-the-line items to be reported for consolidated balance sheet or consolidated income statement line items pursuant to the statutory provisions, as well as disclosures and below-the-line items which may be reported either in the consolidated balance sheet and consolidated income statement or in the notes to the consolidated financial statements have all been reported in the notes to the consolidated financial statements.

Insofar as individual consolidated balance sheet items and/or consolidated income statement items have been combined as part of the statutory regulations so as to provide better transparency. The composition of these line items is presented in the notes to the consolidated financial statements.

B. SIGNIFICANT BUSINESS TRANSACTIONS

I. New issue of fixed rate notes amounting to EUR 450 million

On March 27, 2018, Progroup AG successfully issued Senior Secured Fixed Rate Notes in an amount of EUR 450 million at an interest rate of 3.0%. Progroup used the proceeds from the Senior Secured Fixed Rate Notes, amongst other things, to redeem in full the EUR 345 million interest-bearing bond (Senior Secured Fixed Rate Notes) due 2022 on May 2, 2018 and to pay a special cash dividend of EUR 86.5 million to the shareholders.

The note is secured, amongst other things, by pledging all shares in Progroup AG and the company shares in its main subsidiaries, by pledging the bank deposits of the holding company Progroup AG, by assigning tangible fixed assets of the subsidiaries and by granting real estate liens. Furthermore, certain covenants apply with regard to the loans.

II. Investments in a new corrugated board plant in Italy

With effect of April 2, 2017, Progroup entered into a long-term framework and cooperation agreement for the construction of a further corrugated board plant in Northern Italy with the Italian packaging specialist Imbal Carton S.r.l./Italy. During the year 2017, our newly founded subsidiary Progroup Board S.r.l (Italy) established a new corrugated board production site PW 11 in close proximity to our cooperation partner in Drizzona (Italy) with an investment volume of approximately EUR 15 million. Commencement of production operations occurred in April 2018.

III. Investments in a new corrugated board plant in the United Kingdom

On April 18, 2017, Progroup AG announced its plan to establish a new corrugated board production site in the United Kingdom. Within the context of the Two Twentyfive strategy concept, a new corrugated board plant is being constructed by Progroup Board Ltd. at Ellesmere Port, with an investment volume of approximately GBP 75 million to GBP 80 million. Construction activities commenced in the fourth quarter of 2017. Production operations are expected to start in January 2019.

IV. Investments in a new paper machine in Germany

On February 16, 2018, Progroup AG announced its plan to establish a new paper machine in Germany. Within the framework of the Two Twentyfive strategy concept, a new paper machine is planned to be constructed at the Sandersdorf-Brehna location until 2020. Preparation and planning work for the construction of the site was started in the second quarter of 2018. Construction activities are expected to commence in the first quarter of 2019.

**PROGROUP AG,
Offenbach a. d. Queich,
Commercial Register Landau, HRB No. 2268
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Operations are planned to commence during the second half of 2020.

V. Investments in a new corrugated board plant in Germany

On September 10, 2018, Progroup AG announced its plan to establish a new corrugated board production site in Germany. Within the context of the Two Twentyfive strategy concept, a new corrugated board plant is being constructed at the Eisfeld site by Progroup Board GmbH. Construction activities commenced in the fourth quarter of 2018. Production operations are expected to start in the fourth quarter of 2019 or the first quarter of 2020.

VI. Dividend distribution to Progroup AG shareholders

The Annual General Meeting held on April 26, 2018 resolved the payment of a gross dividend of EUR 11.40 per share entitled to dividends from the net retained profits reported in the annual financial statements for the 2017 financial year in an amount of EUR 168,315,788.56. Thus, the total amount of the distribution made on April 26, 2018 amounted to KEUR 86,506.

VII. Renaming

In the fourth quarter of 2018, all companies were renamed, except for Progroup AG and Prowell Verwaltungs GmbH. A detailed overview can be found in Section F. III. of the notes to the consolidated financial statements.

C. BASIS OF CONSOLIDATION

The subsidiaries which have been included in the consolidated financial statements and the unconsolidated subsidiaries are presented in section F. III. 3 and 4 of the notes to the consolidated financial statements.

As at April 10, 2018, Progroup Paper PM1 GmbH, a wholly-owned subsidiary of Progroup AG, established Progroup Paper PM3 GmbH with its registered office in Burg and a share capital of EUR 25,000.00 and included this company in the scope of consolidation. The company was founded for the purpose of constructing a new paper machine.

As at October 22, 2018, Progroup AG included Progroup Power 2 GmbH—with its registered office in Burg and a share capital of EUR 25,000.00—in the scope of consolidation. The company was established for the purpose of constructing a new combined heat and power plant. However, as at December 31, 2018, the company had not conducted any business activity and, to that extent, is held as a dormant company.

Based on a merger agreement dated July 24, 2018 and certified by a notary public, Proservice GmbH and PROfund GmbH were merged retrospectively as at January 1, 2018 with Progroup AG (merger by absorption). The share in Proservice GmbH amounts to KEUR 0 as at December 31, 2018 (previous year: KEUR 25).

In addition, by way of a merger agreement certified by notary public and also dated July 24, 2018, Projekt 3 CZ Beteiligungs GmbH was merged with Progroup Board GmbH with retrospective effect as at January 1, 2018.

D. PRINCIPLES OF CONSOLIDATION

Acquisitions made until December 31, 2009 continue to be accounted for in accordance with section 66(3) of the Einführungsgesetz zum Handelsgesetzbuch (EGHGB—Introductory Act to the German Commercial Code), using the carrying amount method under section 301(1) no. 1 of the HGB (former version) by eliminating the cost of the equity investments against the proportionate amount that these shares represent in the equity of the subsidiaries.

Acquisitions made after December 31, 2009 are accounted for in accordance with section 301(1) no. 1 of the HGB (as amended) using the purchase method. With this method, the acquisition cost of the investments is eliminated against the equity reflecting the fair value of the assets, liabilities, prepaid

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expenses and deferred income as well as special items to be included in the consolidated financial statements at the acquisition date.

The two companies which previously were not consolidated in accordance with section 296 (2) of the HGB were combined as part of an intragroup merger during the year under review.

Receivables and liabilities between consolidated companies have been eliminated, with receivables and liabilities amounting to KEUR 909,995 having been eliminated outside profit or loss.

In financial year 2018, intercompany profits from Progroup Paper PM1 GmbH's and Progroup Paper PM2 GmbH's paper deliveries to affiliated companies increased by KEUR 2,182; they were eliminated through profit or loss. Intragroup sales, intragroup other operating income and interest income have been eliminated against corresponding expenses, with expenses and income amounting to KEUR 485,898 having been eliminated.

Deferred taxes are generally recognised for consolidation adjustments recognised outside profit or loss as well as for consolidation adjustments recognised through profit or loss. In 2018, consolidation adjustments recognised through profit or loss related exclusively to the elimination of intercompany profits. Deferred tax assets of KEUR 1,801 (previous year: KEUR 1,150) were recognised on eliminated intercompany profits of KEUR 6,038 (previous year: KEUR 3,855).

E. SIGNIFICANT ACCOUNTING POLICIES

I. Disclosure of accounting policies applied

Intangible assets are measured at cost less amortisation. Amortisation is calculated on a straight-line basis over the standard useful lives. The intangible assets are amortised over a useful life of 3 to 10 years. To the extent that the fair values of individual intangible fixed assets fall below their carrying amounts, additional impairment losses are recorded in case of an expected permanent impairment.

Tangible fixed assets are measured at purchase and production cost less depreciation. Depreciation on additions to tangible fixed assets is generally recorded pro rata temporis. To the extent that the fair values of individual assets fall below their carrying amounts, additional impairment losses are recorded in case of an expected permanent impairment.

The purchase costs comprise expenses incurred to acquire an asset and to bring it to its working condition to the extent that such costs can be allocated individually to such asset. Production cost comprises, if applicable, direct material costs, direct labor costs and special costs of production, appropriate indirect material costs and indirect labor costs, general and administrative costs and expenses for social amenities, for voluntary social benefits and for occupational pensions. Borrowing costs have also been included in production cost to the extent that they were attributable to the period of production.

Depreciation is calculated on a straight-line basis over the standard useful lives. Tangible fixed assets and buildings are depreciated over the period of 3 to 33 years.

Prepayments made are presented in the balance sheet at their nominal amount.

Investment grants are reported separately at their nominal amount on the liabilities side under the special item "investment grants for assets" and are reversed in accordance with the useful lives of the fixed assets for which the grants were awarded.

Low-value assets costing up to EUR 250.00 each are fully written off in the year of acquisition. Assets which are capable of being used independently and which cost between EUR 250.00 and EUR 1,000.00 are posted to a collective item in the year of acquisition; this collective item is reversed as a charge to profit or loss over 5 years.

Financial assets are measured at cost or, in the event of an expected permanent impairment, at their lower fair value as at the balance sheet date.

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Inventories are measured at cost, taking account of the lower of cost or market value. Appropriate valuation allowances are recorded for any identifiable risks resulting from above-average storage periods, reduced recoverability and/or lower replacement costs. In all cases, fair value measurement was applied, i. e. write-downs are recognised to the extent that the expected selling prices less costs incurred prior to disposal result in a lower fair value.

Raw materials, consumables and supplies are measured at actual cost or, taking account of the principle of lower of cost or market value, at lower market values as at the reporting date. Replacement parts for machines are also recognised under raw materials, consumables and supplies. Appropriate valuation allowances are applied to inventories which are obsolete, second-hand, damaged or slow-moving. Lump-sum valuation allowances amounting to KEUR 8,681 (previous year: KEUR 1,834) were applied to replacement parts which are obsolete, second-hand or slow-moving.

Work in process and finished goods are measured at production cost. Production cost comprises, if applicable, direct material costs, direct labor costs and special costs of production, appropriate and necessary indirect material costs, indirect labor costs, depreciation and amortisation of fixed assets that is attributable to the production process and general and administrative costs and costs of occupational pensions. Borrowing costs are not included in production cost.

Receivables and other assets as well as the remaining assets are recognised at their principal amount or at their lower fair value as at the balance sheet date.

Appropriate valuation allowances are applied to receivables whose recoverability is associated with identifiable risks; irrecoverable receivables are written off in full.

To cover the general risk from trade receivables, a global valuation allowance of 1% is recognised on domestic and foreign receivables (net of value added tax) which are not subject to a specific valuation allowance.

Cash-in-hand and bank balances are measured at their nominal amounts.

Payments before the balance sheet date are recognised as **prepaid expenses** to the extent that they represent an expense for a specific period of time after this date.

Deferred taxes are recognised at their calculated amount. For further explanations, please refer to Chapter F of the notes to the consolidated financial statements.

Subscribed capital is recognised at calculated amount.

Provisions are recognised at the settlement amount dictated by prudent business judgement. Provisions are recognised for liabilities of uncertain timing and/or amount as well as for losses from onerous contracts. All risks arising up to the balance sheet date and identifiable up to the date of the preparation of the financial statements have been taken into account. Provisions with a remaining term of more than one year have to be discounted using the average market interest rate of the last seven years applicable for their remaining term, while pension provisions are discounted using the average market interest rate of the past ten years.

Liabilities are carried at their settlement amount.

Payments received before the reporting date are recognised as **deferred income** to the extent that they represent income for a specific time period after this date.

II. Currency translation disclosures

Receivables, other assets, cash and cash equivalents and provisions and liabilities denominated in foreign currencies are translated during the year into euros. Measurement as at the balance sheet date is at the average spot exchange rate on December 31, 2018, with the principle of lower of cost or market value, or higher settlement amount, as appropriate, being taken into account for receivables and liabilities with a maturity of over one year in accordance with section 256a of the HGB.

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Foreign exchange gains or losses arising from currency translation are recognised in other operating income or expenses.

Translation of foreign subsidiary annual financial statements is carried out using the modified closing rate method in accordance with section 308a HGB.

Currency translation differences from the consolidation of intercompany balances are recognised directly in currency translation adjustments in equity.

A currency forward was concluded to hedge the currency risk of a loan granted by Progroup AG to the subsidiary Progroup Board Ltd. in the amount of GBP 41.2 million. The hedged item and the hedges have exactly the same maturity. A hedging relationship was established within the meaning of section 254 of the HGB. The effective portions of the established hedging relationships are accounted for in the financial statements using the so-called gross hedge presentation method (Durchbuchungsmethode). The currency forward contract has a positive market value of KEUR 114 as at December 31, 2018, which was recorded in currency translation adjustments in equity. The fair value was derived from the closing rate and the risk-free interest rate based on the cost-of-carry method.

**F. DISCLOSURES AND EXPLANATIONS ON INDIVIDUAL LINE ITEMS IN THE
CONSOLIDATED BALANCE SHEET AND CONSOLIDATED INCOME STATEMENT**

The financial year of all companies included in the consolidated financial statements corresponds to the calendar year.

I. Consolidated balance sheet

1. Fixed assets

In connection with the acquisition of Progroup Power 1 GmbH in 2015 and related revaluation of acquired fixed assets in correspondence with the capital consolidation, an operating license at acquisition cost of KEUR 23,894 has been acquired. Subsequently, the operating license is amortised since 2015 over a remaining useful life of 10 years. As at the balance sheet date, the carrying amount is KEUR 16,850 with a remaining term of 7 years.

The classification and movement in the financial year of the fixed asset accounts recognised in the consolidated financial statements are separately presented as an appendix to the notes to the financial statements in the fixed asset movement schedule.

Fixed asset production cost includes capitalised borrowing costs of KEUR 1,852 which were attributable to the period of production. The capitalised borrowing costs were recognised in fixed assets in the line item "Construction in process". Interest capitalised in previous years was capitalised in tangible fixed assets, primarily in buildings and technical equipment and machinery.

The value of construction in process as at December 31, 2018 is KEUR 141,056 (previous year: EUR 32.7 million), mainly resulting from the Progroup Board plants in Ellesmere Port, UK, and Eisfeld, Germany, as well as the Progroup Paper plant PM3 in Sandersdorf-Brehna, Germany. This includes own work capitalised in the amount of EUR 5.7 million.

2. Receivables and other assets

As in the previous year, receivables and other assets do not include receivables due in more than one year.

As in the previous year, receivables from affiliated companies resulted exclusively from Group trading with affiliated companies not fully consolidated.

Furthermore, other assets include input tax refund claims in an amount of KEUR 821 (previous year: KEUR 280), which in accordance with tax law provisions come into existence only after the balance sheet date.

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3. Deferred taxes

<u>Balance sheet account</u>	<u>Deferred tax assets 31/12/2018</u>	<u>Deferred tax assets 31/12/2017</u>	<u>Deferred tax liabilities 31/12/2018</u>	<u>Deferred tax liabilities 31/12/2017</u>
	(in KEUR)			
Tax loss carryforwards/eligible interest carried forward	1,106	4,129	0	0
Elimination of intercompany profits	1,801	1,150	0	0
Assets				
Intangible fixed assets	0	0	4,671	5,338
Tangible fixed assets/financial assets	1,591	1,805	343	865
Inventories, receivables and other assets	604	231	355	483
Liabilities				
Provisions	396	261	35	2
Liabilities	5	0	63	31
Total deferred tax (gross)	<u>5,503</u>	<u>7,576</u>	<u>5,467</u>	<u>6,719</u>
Deferred tax disclosed (gross and rounded)	<u>36</u>	<u>857</u>	<u> </u>	<u> </u>

To determine deferred taxes based on temporary differences between the financial statement carrying amounts for assets, liabilities, prepaid expenses and deferred charges and deferred income, and their tax bases, or based on tax loss carryforwards and interest carried forward, the amounts of the resulting tax liability and benefit were measured at the individual companies' tax rates (17% - 30%) at the point in time when the differences are reversed; they were not discounted. Deferred tax assets relating to loss carryforwards were taken into account if it was probable that the loss would be offset within the next five years. Today's assessment may change in accordance with the companies' income positions and tax legislation in future years and may require to be adjusted. In addition, deferred tax assets were recognised in financial year 2018 on consolidation adjustments for the elimination of intercompany profits in accordance with § 306 HGB as well as from initial consolidation of Progroup Power 1 GmbH acquired in 2015.

Deferred tax assets on tax loss carryforwards KEUR 1,106 (previous year: KEUR 650) and eligible interest carried forward (German earnings stripping rule; KEUR 0 (previous year: KEUR 3,479)) were fully recognised because the underlying tax planning confirms that the amounts recognised could actually be utilised to reduce tax liabilities in the next 5 years. Deferred tax assets and deferred tax liabilities are reported net.

4. Subscribed capital

The share capital of the parent company is EUR 7,588,236.00 and is divided into 7,588,236 no-par value shares with a calculated amount of subscribed capital of one euro each.

Distribution potential is based on the annual financial statements of Progroup AG. The articles of association do not contain any restrictions on distributions. There is a statutory restriction on distributions equivalent to the deferred tax assets in the annual financial statements of Progroup AG pursuant to section 268(8) of the HGB in the amount of EUR 0.9 million as well as from the measurement of the pension liabilities pursuant to section 253(6) of the HGB in the amount of EUR 0.2 million.

5. Investment grants for fixed assets

Investment grants as well as redemption subsidies for fixed assets are reported as a special reserve and are reversed on a pro rata basis in accordance with the useful lives of the fixed assets for which the grants were awarded.

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6. Pension provisions

As at December 31, 2018, the balance amounts to KEUR 280 (previous year: KEUR 173).

This amount mainly includes pension provisions which were measured in accordance with the PUC method using Prof. Dr. Klaus Heubeck's 2018 G mortality tables.

The first-time application of the new 2018 G mortality tables results in a difference in the required amount of pension provisions of KEUR 12.3. The provisions were discounted at the market interest rate of the preceding ten years published by Deutsche Bundesbank (10-year average interest rate) assuming that all liabilities have a remaining maturity of 15 years (section 253(2) sent. 2 of the HGB).

Measurement of pension provisions is based on the following assumptions:

- Pension increase: +0% (previous year: 2%)
- Salary increase: 0% (unchanged from 2017)
- Interest rate (10-year average): 3.21%
- Interest rate (7-year average): 2.32%

Pension obligations for which provisions were required to be recognised amounted to KEUR 1,386 as at the balance sheet date (10-year average rate). These obligations are offset against assets that serve exclusively to settle liabilities from post-employment benefit obligations and are exempt from attachment by third parties (so-called plan assets). A pledged pension liability insurance policy was classified as a plan asset. Plan assets that serve a specific purpose, have been pledged and are protected against insolvency were measured based on information from the insurer as at December 31, 2018, at the asset value (KEUR 1,209; this corresponds to the fair value). The balance remaining after the offset with the carrying amount of the pension provision (KEUR 176) is reported under "provisions for pensions".

Effect on profit in 2018:

- Interest expense from pension provision: KEUR 44
- Interest income from plan assets: KEUR 25

The balance of interest expenses from the measurement of the pension provision (including the effect from changes in interest) and interest income from the measurement of the plan assets was reported net in the financial result. For the financial year, the balance between the measurement of the pension provision with the 7-year average interest rate and the 10-year average interest rate amounts to KEUR 180 and is subject to a distribution restriction at the level of the individual financial statements of Progroup AG.

7 Tax provisions

(in KEUR) Tax provisions	2018	2017
Corporate income tax	13,212	6,249
Trade tax	20,674	7,428
Other tax	65	53
	<u>33,951</u>	<u>13,732</u>

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8. Other provisions

This item comprises the following provisions:

(in KEUR) Provision for	2018	2017
Outstanding invoices	26,330	22,138
Personnel expenses (bonuses, special payments, severance payments, holiday obligations, overtime)	12,854	9,678
Bonuses still to be granted	11,018	8,929
Costs of preparing the annual financial statements, legal and consulting costs, storage	3,732	4,986
Maintenance not undertaken, expected to be completed in Q1 2019	2,858	1,190
Berufsgenossenschaft (Employer's Liability Insurance Association), Schwerbehindertenabgabe (levy for not employing disabled persons)	722	707
	<u>57,514</u>	<u>47,628</u>

9 Liabilities

(in KEUR)	Remaining Term			Total	thereof secured
	less than 1 year	more than 1 year	thereof more than 5 years		
Bonds	0	600,000	600,000	600,000	600,000
Previous year	0	495,000	150,000	495,000	495,000
Bank loans	8,960	65,073	20,993	74,033	74,033
Previous year	7,996	34,523	0	42,519	42,519
Trade payables	49,787	0	0	49,787	0
Previous year	51,524	0	0	51,524	0
Other liabilities	12,558	0	0	12,558	4,405
Previous year	12,161	0	0	12,161	2,947
Total liabilities	<u>71,305</u>	<u>665,073</u>	<u>620,993</u>	<u>736,378</u>	<u>678,438</u>
Previous year	71,681	529,523	150,000	601,204	540,466

Of the liabilities reported, a total of KEUR 678,438 is mainly secured as follows:

- Pledges of shares in Progroup AG and company shares in its main subsidiaries included in the consolidated financial statements of Progroup AG (Progroup Board GmbH, Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Paper PM3 GmbH, Progroup Power 1 GmbH, Progroup Logistics GmbH, Progroup Board sp. z o.o., Progroup Board s.r.o., Progroup Board S.A.S, Progroup Board Ltd.)
- Pledging of bank deposits of Progroup AG in Germany
- Real estate liens (i. e. land charges or mortgages) on all substantial land and buildings of Progroup Board GmbH, Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Paper PM3 GmbH, Progroup Power 1 GmbH, Progroup Board sp. z o.o., and Progroup Board s.r.o.
- Assignment of technical equipment and machinery as well as other office equipment of Progroup Board GmbH, Progroup Paper PM1 GmbH, Progroup Paper PM2 GmbH, Progroup Paper PM3 GmbH, Progroup Power 1 GmbH, Progroup Board sp. z o.o., Progroup Board s.r.o. and Progroup Board Ltd.

In addition to the issuance of bonds (amount as at December 31, 2018: EUR 600 million), there still is a revolving credit facility in the amount of EUR 50 million which was granted by a syndicate of banks (Super Senior Revolving Credit Facility). As at December 31, 2018, the revolving credit facility was not utilised by the company or any of its subsidiaries.

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Moreover, as at December 31, 2018, there are two PLN loans of Progroup Board sp. z o.o. with an original amount of PLN 214 million. The loan balance was reduced through scheduled repayments to a total of PLN 144.2 million as at December 31, 2018. As at December 31, 2018, the loan taken out by Progroup Board Ltd. in 2017 in the amount of GBP 70 million at Goldman Sachs Bank USA was utilised in an amount of GBP 3 million. The loan taken out by Progroup AG in 2017 in the amount of EUR 37.2 million (original loan principal: EUR 38.5 million, reduced by a redemption subsidy) at IKB Bank AG was fully utilised as at December 31, 2018. As at July 13, 2018, Progroup Paper PM3 GmbH took out a loan in the amount of EUR 25 million at Landesbank Saar, a loan in the amount of EUR 25 million at IKB Bank AG and three loans in a total amount of EUR 75 million at Commerzbank AG. As at August 6, 2018, Progroup Paper PM3 GmbH took out a further loan in the amount of EUR 30 million at HSBC Trinkaus & Burkhardt AG. All six loans taken out in 2018 were not utilised as at December 31, 2018.

The bonds, the Super Senior Revolving Credit Facility, the PLN loans, the GBP loan and the EUR loans are secured pari passu as mentioned above. In an Intercreditor Agreement the creditors under the Super Senior Revolving Credit Facility were granted priority satisfaction from possible proceeds of sale.

Trade payables are also secured under the customary retention of title.

KEUR 5,044 of other liabilities was attributable to tax liabilities (previous year: KEUR 6,639) and KEUR 750 to social security liabilities (previous year: KEUR 658).

10. Deferred income

As at December 31, 2018, this item amounts to KEUR 83 (previous year: KEUR 3,236), comprising a compensation payment received in the amount of KEUR 27 for a steam supply contract which is released to income over the contractual term until January 31, 2019. The previous year's figure comprises the difference between the settlement value and the payment amount of the bond issued in 2015, which was planned to be released as adjustment to interest expenses through profit or loss over the term of the bond until 2022. This bond was redeemed early in May 2018 so that this item is no longer recognised as at December 31, 2018.

II. Consolidated income statement

The consolidated income statement has been prepared under the total cost (nature of expense) method.

The companies Progroup Paper PM3 GmbH, Burg, Germany, and Progroup Power 2 GmbH, Burg, Germany, both of which were newly established in 2018, were included in the consolidated financial statements for the first time as at April 30, 2018 and August 31, 2018, respectively. Accordingly, the contributions to earnings attributable to these companies are contained in the consolidated income statement for the period from January 1 to December 31, 2018 for the first time.

1 Sales breakdown by country of origin

<u>(in KEUR)</u>		<u>2018</u>	<u>2017</u>
Domestic	Corrugated board	412,940	343,957
	Containerboard	84,456	99,729
	Other	41,690	40,605
Other European countries	Corrugated board	427,026	319,965
	Other	6	0
Total		<u>966,118</u>	<u>804,256</u>

2. Other operating income

This account includes income from the proportionate reversal of investment grants and allowances for fixed assets amounting to KEUR 251 (previous year: KEUR 252).

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Other operating income also includes prior-period income of KEUR 13,268 (previous year: KEUR 12,567). This mainly comprises income from the reversal of provisions in the amount of KEUR 3,148 (previous year: KEUR 4,050) as well as income from increased prior-year energy tax refunds amounting to KEUR 4,952 (previous year: KEUR 5,927).

This also includes extraordinary income of KEUR 3,972 (previous year: KEUR 0) resulting from the reversal of provisions for finance charges in the amount of KEUR 400 (previous year: KEUR 0) as well as the allocation of taxes from previous years in the amount of KEUR 3,324 (previous year: KEUR 0) and the reimbursement in connection with an insured loss event from previous years in the amount of KEUR 248 (previous year: KEUR 0).

Furthermore, it includes currency translation gains of KEUR 2,929 (previous year: KEUR 3,930).

3. Cost of materials

The cost of materials for the financial year amounts to KEUR 493,641 (previous year: KEUR 430,481).

4. Personnel expenses

The personnel expenses for the financial year amounts to a total of KEUR 78,925 (previous year: KEUR 68,326). They include expenses for pensions amounting to KEUR 266 in the financial year (previous year: KEUR 258).

5. Amortisation and depreciation

This account includes amortisation of intangible assets and depreciation of tangible assets amounting to KEUR 51,753 (previous year: KEUR 50,032).

In addition, this account comprises write-downs on current assets exceeding the usual depreciation in the amount of KEUR 6,400 (previous year: KEUR 0).

6. Other operating expenses

This account includes prior-period expenses amounting to KEUR 1,352 (previous year: KEUR 1,935).

It also comprises expenses of exceptional size amounting to KEUR 7,492 (previous year: KEUR 6,240), largely consisting of bank charges and consulting fees from the issue of bonds in March 2018 and the financing agreements in connection with the PM3 project in the third quarter.

Furthermore, the item contains rental and leasing expenses of KEUR 7,832 (previous year: KEUR 6,624) as well as expenses from currency translation of KEUR 4,566 (previous year: KEUR 3,340).

7. Other interest and similar income

This item amounts to KEUR 86 (previous year: KEUR 65) and includes interest received in an amount of KEUR 48. This account does not include income from the discounting of provisions.

8. Interest and similar expenses

Overall, the amount of interest paid in financial year 2018 was KEUR 30,803.

The expenses from discount unwinding of discounted pension provisions amounted to KEUR 44 as at December 31, 2018 (previous year: KEUR 21).

Interest includes expenses similar to interest due to shareholders in an amount of KEUR 249 (previous year: KEUR 0).

Moreover, this account includes expenses similar to interest in the amount of KEUR 12,392 (previous year: KEUR 610), largely consisting of a liability remuneration to shareholders of Progroup AG amounting to KEUR 2,187 as well as an early redemption fee in relation to the early redemption in Mai 2018 of the

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Senior Secured Fixed Rate Notes issued in 2015 in the amount of KEUR 8,842. The liability remuneration results from the pledging of shares to secure the bond issue in the amount of EUR 450 million as well as from further measures in the context of the company's refinancing.

9. Taxes on income

This account mainly includes trade tax and corporate income tax for the current financial year in the amount of KEUR 51,060 (previous year: KEUR 23,775) and refunds payments of trade tax and corporate income tax for previous years in the amount of KEUR 2,999 (previous year: KEUR 8). It also includes expenses arising from the adjustment of deferred tax assets in the amount of KEUR 807 (previous year: KEUR 4,228). In the financial year 2018, the total amount of tax paid was KEUR 34,202.

III. Other disclosures

1. Contingent liabilities, off-balance sheet transactions and other financial commitments

In addition to the bonds (amount as at December 31, 2018: EUR 600 million), there still is a revolving credit facility in the amount of EUR 50 million which was granted by a syndicate of banks (Super Senior Revolving Credit Facility). As at December 31, 2018, the revolving credit facility was not utilised by the company or any of its subsidiaries.

The bonds outstanding on the balance sheet date and the Super Senior Revolving Credit Facility, which can also be utilised by subsidiaries of Progroup AG, as well as the two loans in a total amount of PLN 144.2 million granted to Progroup Board sp. z o. o. by Commerzbank Aktiengesellschaft, the loan in an amount of GBP 3 million to Progroup Board Ltd. by Goldman Sachs Bank USA as at December 31, 2018, and the loans in a total amount of EUR 37.2 million granted to Progroup AG by IKB Bank AG are secured by pledging all shares in Progroup AG and the company shares in its main subsidiaries, by pledging the bank deposits of the parent company, by assigning tangible fixed assets of the subsidiaries and by granting real estate liens. Furthermore, certain covenants apply with regard to the loans and/or bonds.

The bonds, the Super Senior Revolving Credit Facility, two of the loans granted to Progroup Board sp. z o. o. by Commerzbank Aktiengesellschaft in the amount of PLN 144.2 million, the loan granted to Progroup Board Ltd. by Goldman Sachs Bank USA in the amount of GBP 3 million as well as the loan granted to Progroup AG by IKB Bank AG in the amount of EUR 37.2 million are secured *pari passu* as mentioned above. However, in an Intercreditor Agreement the creditors were granted a priority satisfaction from any proceeds from realisation.

Furthermore, the parent company has provided letters of comfort and guarantees for a total amount of KEUR 41,784 to various suppliers of subsidiaries. The parent company also has assumed joint and several co-liability vis-à-vis CommerzFactoring GmbH for obligations of Progroup Board GmbH from a forfaiting framework agreement.

The risk of enforcement should be regarded as low as none of the affiliates have a strained liquidity position.

The companies lease forklifts and trucks under operating lease agreements so that these assets are not recognised in the companies' financial statements. As at December 2018, the remaining obligations from the lease agreements were KEUR 8,239. In addition, there were rental and lease agreements for movable assets as well as for the rental of factory buildings and areas as at the balance sheet date. As at December 31, 2018, the remaining obligations from these rental/lease agreements for subsequent years were KEUR 16,129 (nominal amount). The advantage of these agreements is that a lower amount of capital is tied up in the beginning than with a purchase and there is an absence of realisation risk. Risks could arise from the lease agreement periods if the assets can no longer be fully utilised, although there are currently no indications of this.

As at the balance sheet date, there were steam supply contracts in place for the reliable supply of energy at fixed prices which did not lead, however, to a recognition of a provision for contingent losses. These agreements have terms of up to 7 years (December 31, 2025).

PROGROUP AG,
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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Due to specific contractual agreements entered into as at the balance sheet date, total obligations for the following year 2019 amount to KEUR 8,149 (December 31, 2017: KEUR 9,766).

In addition, as at the balance sheet date there were contractual purchase commitments for waste paper and corrugated board base paper supplies; respective commitments for the following year are KEUR 46,326 (December 31, 2017: KEUR 45,760). Furthermore, there are outstanding purchase commitments for other services in the amount of KEUR 216,980 (December 31, 2017: KEUR 52,714).

2. Employees

The average number of employees during the financial year changed as follows:

The disclosure only includes employees of consolidated companies.

	<u>2018</u>	<u>2017</u>
Salaried employees	276	248
Wage earners	820	792
Total	<u>1,096</u>	<u>1,040</u>

3 List of companies included in the consolidated financial statements

Consolidated companies

<u>(in %)</u>	<u>Percentage shareholding as at 31/12/2018</u>
Progroup Paper PM1 GmbH (formerly Propapier PM1 GmbH), Burg, Germany	100.00
Progroup Paper PM2 GmbH (formerly Propapier PM2 GmbH), Eisenhüttenstadt, Germany ⁽¹⁾	100.00
Progroup Paper PM3 GmbH, Burg, Germany ⁽¹⁾	100.00
Progroup Logistics GmbH (formerly Prologistik GmbH), Burg, Germany	100.00
Progroup Power 1 GmbH (formerly Propower GmbH), Eisenhüttenstadt, Germany	100.00
Progroup Power 2 GmbH, Burg, Germany	100.00
Progroup Board GmbH (formerly Prowell GmbH), Offenbach a. d. Queich, Germany	100.00
Progroup Board s.r.o (formerly Prowell s. r. o.), Rokycany, Czech Republic ⁽¹⁾	100.00
Progroup Board Sp.z.o.o. (formerly Prowell Sp.z.o.o.), Strykow, Poland ⁽¹⁾	100.00
Progroup Board Limited (formerly Prowell Limited), Ellesmere Port, England ⁽¹⁾	100.00
Progroup Board S.A.S. (formerly Prowell S.A.S.), Douvrin, France ⁽¹⁾	100.00
Progroup Board s.r.l. (formerly Prowell s.r.l.), Drizzona, Italy ⁽¹⁾	100.00
Prowell Verwaltungs GmbH, Offenbach a. d. Queich, Germany	100.00

(1) indirect equity interest

4. Parent company

The holding company of the largest consolidation group is JH-Holding GmbH, Neustadt a. d. Weinstrasse, Germany. The consolidated financial statements of JH-Holding GmbH are submitted to the operator of the Bundesanzeiger (Federal Gazette) for publication.

5. Subsidiaries

Progroup Paper PM1 GmbH, Burg, Germany, Progroup Paper PM2 GmbH, Eisenhüttenstadt, Germany, Progroup Power 1 GmbH, Eisenhüttenstadt, Germany, as well as Progroup Board GmbH, Offenbach a. d. Queich, Germany, have made use of the exemption pursuant to section 264(3) HGB.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. Emission allowances

At the balance sheet date, the Group held 664,384 CO₂ emission allowances (allocation for 2018: 83,100 CO₂ emission allowances). These were acquired free of charge as part of a public allocation. The allowances are recognised at their reminder value. The quoted market price as at the balance sheet date was approximately EUR 23.40 per certificate (December 31, 2017: approximately EUR 8 per certificate). The fair value of the allowances recognised at a carrying amount of KEUR 0 therefore amounted to EUR 15.5 million (December 31, 2017: EUR 4.0 million).

7. Cash flow statement

The cash flow statement has been prepared in accordance with the provisions of DRS 21 (German Accounting Standard—GAS 21) using the indirect method. Cash funds have been exclusively defined as cash and cash equivalents.

8. Proposal for the appropriation of profits

The Management Board proposes to the general meeting of shareholders to distribute to the shareholders from the net retained profits reported in the annual financial statements for the 2018 financial year in an amount of EUR 210,329,798.99 a dividend of EUR 2.65 (gross) per share entitled to dividends, i. e. a total amount of EUR 20,108,825.40, and to carry the remaining net retained profit in the amount of EUR 190,220,973.59 forward to new account.

9. Management Board

The following were members of the Management Board in the financial year:

Jürgen Heindl, Dipl.Wirt.Ing., Neustadt a. d. Weinstrasse, Germany (Chairman of the Management Board)

Dr. Volker Metz, Dipl.Kfm., Hochdorf-Assenheim, Germany (CFO)

Philipp Kosloh, Dipl.Ing., Speyer am Rhein, Germany (Deputy Member of the Executive Board)

Maximilian Heindl, Dipl.Wirt.Ing., Neustadt a. d. Weinstrasse, Germany (Deputy Member of the Executive Board)

10. Supervisory Board

The Supervisory Board was composed of as follows during the financial year:

Rainer Dietmann, Lawyer, Partner of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, Mannheim, Germany (Chairman)

Prof. Dr. Rudolf Wimmer, Vice President of Witten/Herdecke University, Vienna, Austria (Vice Chairman)

Prof. Dr. Hermut Kormann, Honorary Professor at Leipzig University and at Zeppelin University Friedrichshafen, Germany, until 24 January 2019

Christian Buchel, member of the Management Board of ENEDIS Paris, France, since 24 January 2019

11. Total remuneration

The Management Board's total remuneration in the financial year for exercising its responsibilities in the holding company and the subsidiaries was KEUR 8,153 (2017: KEUR 5,636).

Supervisory Board remuneration in 2018 amounted to KEUR 119 (2017: KEUR 215).

**PROGROUP AG,
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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

12. Auditors' fees

The group auditor's fees recognised as an expense in the financial year amounted to KEUR 295 (2017: KEUR 218) for audit services and KEUR 33 (2017: KEUR 38) for other assurance services.

Furthermore, expenses for voluntary assurance services amounted to KEUR 260 (previous year: KEUR 320).

IV. Report on subsequent events

No further operative or structural changes or business matters have occurred after the balance sheet date that have a material effect on the net assets, financial position and results of operation of Progroup AG.

Offenbach a. d. Queich, Germany, February 15, 2019

Management Board

Jürgen Heindl
Chief Executive Officer

Dr. Volker Metz
Chief Financial Officer

Maximilian Heindl
Chief Development
Officer

Philipp Kosloh
Chief Operating Officer

**Consolidated Fixed Asset Movement
Schedule for 2018**

Consolidated Fixed Asset Movement Schedule

	Acquisition or manufacturing cost						Amortisation/depreciation					Net book values	
	01/01/2018	Exchange differences	Additions	Disposals	Retransfers	12/31/2018	01/01/2018	Exchange differences	Additions	Disposals	12/31/2018	12/31/2018	12/31/2017
	€	€	€	€	€	€	€	€	€	€	€	€	€
A. Fixed assets													
I. Intangible assets													
Purchased concessions, industrial property and similar rights and assets, and licenses in such rights and assets	31,353,058.93	– 5,039.02	407,396.50	28,743.64	30,916.63	31,757,589.40	11,578,681.73	– 3,797.30	2,795,427.57	27,777.48	14,342,534.52	17,415,054.88	19,774,377.20
	<u>31,353,058.93</u>	<u>– 5,039.02</u>	<u>407,396.50</u>	<u>28,743.64</u>	<u>30,916.63</u>	<u>31,757,589.40</u>	<u>11,578,681.73</u>	<u>– 3,797.30</u>	<u>2,795,427.57</u>	<u>27,777.48</u>	<u>14,342,534.52</u>	<u>17,415,054.88</u>	<u>19,774,377.20</u>
II. Tangible assets													
1. Land and buildings	295,747,640.73	– 1,803,121.76	12,837,366.50	18,997.61	789,989.82	307,552,877.68	111,251,066.61	– 372,952.46	9,041,288.78	18,997.61	119,900,405.32	187,652,472.36	184,496,574.12
2. Technical equipment and machinery	857,596,051.00	– 1,480,413.50	15,325,312.94	3,888,620.31	14,775,085.06	882,327,415.19	460,547,532.36	– 733,428.49	38,090,163.87	3,765,530.91	494,138,736.83	388,188,678.36	397,048,518.64
3. Other equipment, factory and office equipment	21,029,161.09	– 46,595.49	2,419,749.98	639,739.44	394,136.23	23,156,712.37	14,125,282.42	– 30,596.56	1,825,891.85	635,633.63	15,284,944.08	7,871,768.29	6,903,878.67
4. Prepayments and construction in process	34,261,341.07	– 617,111.83	124,943,831.16	0.00	– 15,990,127.74	142,597,932.66	1,541,637.22	– 0.01	0.00	0.00	1,541,637.21	141,056,295.45	32,719,703.85
	<u>1,208,634,193.89</u>	<u>– 3,947,242.58</u>	<u>155,526,260.58</u>	<u>4,547,357.36</u>	<u>– 30,916.63</u>	<u>1,355,634,937.90</u>	<u>587,465,518.61</u>	<u>– 1,136,977.52</u>	<u>48,957,344.50</u>	<u>4,420,162.15</u>	<u>630,865,723.44</u>	<u>724,769,214.46</u>	<u>621,168,675.28</u>
III. Financial assets													
Shares in affiliated companies .	37,375.00	0.00	0.00	37,375.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37,375.00
	<u>37,375.00</u>	<u>0.00</u>	<u>0.00</u>	<u>37,375.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>37,375.00</u>
	<u>1,240,024,627.82</u>	<u>– 3,952,281.60</u>	<u>155,933,657.08</u>	<u>4,613,476.00</u>	<u>0.00</u>	<u>1,387,392,527.30</u>	<u>599,044,200.34</u>	<u>– 1,140,774.82</u>	<u>51,752,772.07</u>	<u>4,447,939.63</u>	<u>645,208,257.96</u>	<u>742,184,269.34</u>	<u>640,980,427.48</u>

including buildings on leasehold land

**Consolidated Cash Flow Statement
for the Period
from January 1 to December 31, 2018**

Progroup AG, Offenbach an der Queich
Consolidated Cash Flow Statement

	2018	2017
	K€	K€
1. Cash flows from operating activities		
Consolidated net income for the period	126,965	72,412
Amortisation and depreciation of fixed assets	51,753	50,032
Increase (+)/decrease (–) in provisions	13,102	6,183
Other non-cash expenses (+)/income (–)	– 830	– 1,228
Increase (–)/decrease (+) in inventories, trade receivables and other assets*	– 53,407	– 32,056
Increase (+)/decrease (–) in trade payables and other liabilities*	3,307	– 10,431
Gain (–) / loss (+) on disposal of fixed assets	166	0
Interest expenses (+) /income (–)	31,976	23,613
Expenditure (+) /income (–) of exceptional size or incidence	3,519	6,240
Income tax expenses (+) /income (–)	54,865	28,058
Cash payments (–) relating to expenditure of exceptional size or incidence	0	– 2,178
Income taxes paid (–)	– 34,202	– 17,939
Cash flows from operating activities	197,214	122,706
2. Cash flows from investing activities		
Proceeds (+) from disposal of intangible and tangible fixed assets	375	150
Payments (–) to acquire intangible fixed assets	– 407	– 176
Payments (–) to acquire tangible fixed assets	– 158,965	– 47,762
Interest received (+)	48	53
Cash flows from investing activities	– 158,949	– 47,735
3. Cash flows from financing activities		
Proceeds (+) from the issuance of bonds and borrowings	490,575	173,187
Cash repayments (–) of bonds and borrowings	– 352,867	– 83,642
Proceeds (+) from grants received	1,345	0
Cash payments (–) relating to expenditure of exceptional size or incidence	– 8,702	– 3,317
Interest paid (–)	– 50,112	– 24,891
Dividends paid to shareholders of the parent entity (–)	– 86,506	– 57,519
Cash flows from financing activities	– 6,267	3,818
4. Cash funds at end of period		
Net change in cash funds	31,998	78,789
Effect on cash funds of exchange rate movements	– 1,513	1,787
Cash funds at beginning of period	117,946	37,370
Cash funds at end of period	148,431	117,946
5. Composition of cash funds		
Cash and cash equivalents	148,431	117,946
Cash funds at end of period	148,431	117,946

* not attributable to investing or financing activities

Consolidated Statement of Changes in Equity for 2018

Consolidated Statement of Changes in Equity

(in KEUR)	Subscribed capital	Capital reserve	Consolidated equity generated		Currency translation adjustment	Group equity
			Revenue reserves	Consolidated net retained profits**		
01 January 2017	7,588	75,414	1,408	178,466	– 3,267	259,609
Distribution of profit				– 57,519		– 57,519
Consolidated net profit for the year .	0	0	0	72,411	0	72,411
Other changes	0	0	0	0	2,813	2,813
31 December 2017	7,588	75,414	1,408	193,358	– 454	277,314
01 January 2018	7,588	75,414	1,408	193,358	– 454	277,314
Distribution of profit				– 86,506		– 86,506
Consolidated net profit for the year .	0	0	0	126,965	0	126,965
Other changes	0	0	0	0	– 2,255	– 2,255
31 December 2018	7,588	75,414	1,408	233,817	– 2,709	315,518

** The consolidated net retained profits in the amount of the deferred tax assets recognised in Progroup AG's annual financial statements as well as from the measurement of pension obligations are subject to a distribution restriction (2018: EUR 1.1 million; 2017: EUR 4.4 million). As of December 31, 2018 EUR 209.2 million (31 December 2017: EUR 164.7 million) are available for distribution to the shareholders from the annual financial statements of Progroup AG.

The following auditor's report (*Bestätigungsvermerk*) has been issued in accordance with section 322 of the German Commercial Code (*Handelsgesetzbuch*) on the consolidated financial statements and group management report (*Konzernlagebericht*) of Progroup AG as of and for the fiscal year ended December 31, 2018. The group management report is neither included nor incorporated by reference in this offering memorandum.

INDEPENDENT AUDITOR'S REPORT

To Progroup AG, Offenbach a.d. Queich, Germany

Audit Opinions

We have audited the consolidated financial statements of Progroup AG, Offenbach a.d. Queich, Germany, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2018, and the consolidated income statement, consolidated statement of changes in equity and consolidated cash flow statement for the financial year from January 1 to December 31, 2018, and notes to the consolidated financial statements, including the recognition and measurement policies presented therein. In addition, we have audited the group management report of Progroup AG for the financial year from January 1 to December 31, 2018.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the requirements of German commercial law and give a true and fair view of the assets, liabilities and financial position of the Group as at December 31, 2018 and of its financial performance for the financial year from January 1 to December 31, 2018 in compliance with German Legally Required Accounting Principles, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to § 322 paragraph 3 sentence 1 of the German Commercial Code (*Handelsgesetzbuch*, HGB), we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Other Information

The executive directors are responsible for the other information.

The annual report is expected to be made available to us after the date of the auditor's report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with the requirements of German commercial law, and that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with German Legally Required Accounting Principles. In addition, the executive directors are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with German Legally Required Accounting Principles.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Mannheim, February 15, 2019

PricewaterhouseCoopers GmbH,
Wirtschaftsprüfungsgesellschaft

Dr. Ralf Worster
(German Public Auditor)

ppa. Martin Knoll
(German Public Auditor)

**Consolidated Financial Statements
for the Financial Year from
January 1 to December 31, 2017**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED BALANCE SHEET
AS OF DECEMBER 31, 2017

Assets

	<u>12/31/2017</u>	<u>12/31/2016</u>
	€	€
A. Fixed assets		
I. Intangible assets		
Purchased concessions, industrial property and similar rights and assets, and licenses in such rights and assets	19,774,377.20	22,352,487.92
	<u>19,774,377.20</u>	<u>22,352,487.92</u>
II. Tangible assets		
1. Land and buildings including buildings on leasehold land . .	184,496,574.12	175,004,896.31
2. Technical equipment and machinery	397,048,518.64	409,967,145.84
3. Other equipment, factory and office equipment	6,903,878.67	6,254,475.49
4. Prepayments and construction in process	32,719,703.85	26,238,988.67
	<u>621,168,675.28</u>	<u>617,465,506.31</u>
III. Financial assets		
1. Shares in affiliated companies	37,375.00	37,375.00
	<u>37,375.00</u>	<u>37,375.00</u>
	<u>640,980,427.48</u>	<u>639,855,369.23</u>
B. Current assets		
I. Inventories		
1. Raw materials, consumables and supplies	53,984,594.71	51,480,307.67
2. Work in process	27,670,803.17	18,396,052.55
3. Finished goods	5,061,384.60	4,038,107.33
4. Prepayments	147,495.16	29,331.24
	<u>86,864,277.64</u>	<u>73,943,798.79</u>
II. Receivables and other assets		
1. Trade receivables	78,858,760.03	59,561,522.43
2. Receivables from affiliated companies	39,495.50	52,117.58
3. Other assets	19,893,053.09	19,756,794.23
	<u>98,791,308.62</u>	<u>79,370,434.24</u>
III. Cash-in-hand, bank balances	117,946,188.56	37,370,276.21
	<u>303,601,774.82</u>	<u>190,684,509.24</u>
C. Prepaid expenses	<u>916,823.24</u>	<u>1,189,233.58</u>
D. Deferred taxes	<u>857,374.62</u>	<u>5,085,683.18</u>
	<u>946,356,400.16</u>	<u>836,814,795.23</u>

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED BALANCE SHEET (Continued)
AS OF DECEMBER 31, 2017

	<u>12/31/2017</u>	<u>12/31/2016</u>
	€	€
A. Equity		
I. Subscribed capital	7,588,236.00	7,588,236.00
II. Capital reserve	75,414,347.76	75,414,347.76
III. Other revenue reserves	1,407,760.39	1,407,760.39
IV. Currency translation adjustment	– 454,362.80	– 3,267,182.56
V. Consolidated net retained profits	193,358,116.68	178,465,411.73
	<u>277,314,098.03</u>	<u>259,608,573.32</u>
B. Investment grants for fixed assets	<u>2,685,452.00</u>	<u>2,937,026.00</u>
C. Provisions		
1. Provisions for pensions	172,635.98	34,574.11
2. Tax provisions	13,732,074.69	8,104,427.98
3. Other provisions	47,628,140.41	38,952,895.02
	<u>61,532,851.08</u>	<u>47,091,897.11</u>
D. Liabilities		
1. Bonds	495,000,000.00	420,000,000.00
2. Bank loans	42,518,553.99	26,274,666.13
3. Trade payables	51,524,270.14	58,019,725.77
4. Other liabilities	12,160,973.83	18,188,200.73
	<u>601,203,797.96</u>	<u>522,482,592.63</u>
E. Deferred income	<u>3,620,201.09</u>	<u>4,694,706.17</u>
	<u><u>946,356,400.16</u></u>	<u><u>836,814,795.23</u></u>

**Consolidated Income Statement
for the Period from
January 1 to December 31, 2017**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED INCOME STATEMENT
FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2017

	<u>2017</u>	<u>2016</u>
	€	€
1. Sales	804,256,106.71	733,227,890.08
2. Decrease (–)/increase in finished goods and work in process	10,298,027.90	– 6,554,261.00
3. Other own work capitalized	2,637,490.27	1,116,082.39
4. Other operating income	17,603,469.18	14,712,777.71
5. Cost of materials		
a) Cost of raw materials, consumables and supplies	– 361,658,663.22	– 309,632,342.08
b) Cost of purchased services	– 68,822,103.75	– 61,917,741.74
	– 430,480,766.97	– 371,550,083.82
6. Personnel expenses		
a) Wages and salaries	– 58,293,848.15	– 52,627,414.65
b) Social security and pensions	– 10,031,738.50	– 8,795,217.99
	– 68,325,586.65	– 61,422,632.64
7. Amortization and depreciation of fixed intangible and tangible assets	– 50,032,404.06	– 47,372,114.05
8. Other operating expenses	– 160,425,107.66	– 154,292,522.73
9. Other interest and similar income	65,048.50	144,147.55
10. Interest and similar expenses	– 23,677,768.98	– 25,333,903.47
11. Taxes on income	– 28,057,517.77	– 19,792,814.98
12. Earnings after taxes	<u>73,860,990.47</u>	<u>62,882,565.04</u>
13. Other taxes	– 1,449,456.64	– 1,478,724.63
14. Consolidated net income for the year	<u>72,411,533.83</u>	<u>61,403,840.41</u>
15. Consolidated unappropriated retained earnings brought forward	120,946,582.85	117,061,571.32
16. Consolidated net retained profits	<u>193,358,116.68</u>	<u>178,465,411.73</u>

**Notes to the Consolidated Financial Statements
For Financial Year 2017**

PROGROUP AG
OFFENBACH A. D. QUEICH, GERMANY
COMMERCIAL REGISTER LANDAU, HRB NO. 2268
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR FINANCIAL YEAR 2017

A. GENERAL INFORMATION

The consolidated financial statements of Progroup AG, comprising the consolidated balance sheet, consolidated income statement, notes to the consolidated financial statements, the consolidated cash flow statement and the consolidated statement of changes in equity, have been prepared in accordance with the applicable provisions of Parts One and Two of the Third Book of the Handelsgesetzbuch (HGB—German Commercial Code) and the supplementary provisions of the Aktiengesetz (AktG—German Stock Corporation Act). The previous year's figures are stated for comparative purposes.

In the interest of greater clarity and transparency, below-the-line items to be reported for consolidated balance sheet or consolidated income statement line items pursuant to the statutory provisions, as well as disclosures and below-the-line items which may be reported either in the consolidated balance sheet and consolidated income statement or in the notes to the consolidated financial statements have all been reported in the notes to the consolidated financial statements.

Insofar, as individual consolidated balance sheet items and/or consolidated income statement items have been combined as part of the statutory regulations so as to provide better transparency. The composition of these line items is presented in the notes to the consolidated financial statements.

B. SIGNIFICANT BUSINESS TRANSACTIONS

I. New issue of floating rate notes amounting to EUR 150 million

On March 27, 2017, Progroup AG successfully issued Senior Secured Floating Rate Notes in an amount of EUR 150 million at an interest rate of three-month EURIBOR plus 2.5% p.a. with a term of seven years, maturing on March 31, 2024. Progroup used the proceeds from these Senior Secured Floating Rate Notes, among other things, to redeem the existing Floating Rate Note, which was issued in 2015 and had a principal amount of EUR 75 million as at the date of the new issue (March 27, 2017), as well as to pay certain transaction-related fees and expenses. The notes are secured by pledging all shares in Progroup AG and the company shares in its main subsidiaries, by pledging the bank deposits of the holding company Progroup AG, by assigning tangible fixed assets of the subsidiaries, by granting real estate liens and by assignments of certain receivables. Furthermore, certain covenants apply with regard to the loans.

II. Investments in the construction of a new Prowell plant

With effect of December 1, 2015, Progroup entered into a long-term framework and cooperation agreement for the construction of a further corrugated board plant in the southwest of Poland with one of our key customers. Completion of the production building and commencement of production operations at this location occurred in the first quarter of 2017. For the financing of the new plant, Prowell sp. z o.o. entered into a loan agreement for a fixed rate loan in an amount of PLN 107 million with Commerzbank Aktiengesellschaft, Frankfurt, on May 31, 2016. Of these loans, an amount of PLN 15 million was already repaid, resulting in a loan balance of PLN 92 million as at December 31, 2017.

III. New subsidiary established in Italy—Investments in a new Prowell plant in Italy

With effect of April 2, 2017, Progroup entered into a long-term framework and cooperation agreement for the construction of a further corrugated board plant in Northern Italy with the Italian packaging specialist Imbal Carton S.r.l./Italy. During the year 2017, our newly founded subsidiary Prowell S.r.l (Italy) established a new corrugated board production site in close proximity to our cooperation partner in Drizzona (Italy) with an investment volume of approximately EUR 13 million. Production operations at this location are expected to start in the first quarter of 2018.

IV. Investments in a new Prowell plant in the United Kingdom

On April 18, 2017, Progroup AG announced its plan to establish a new corrugated board production site in the United Kingdom. Within the framework of the Two Twentyfive strategy concept, a new corrugated

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FOR FINANCIAL YEAR 2017

board production site is planned to be constructed through Prowell Ltd. at the Ellesmere Port location until the end of 2018. Preparation and planning work for the construction of the site was started in the second quarter of 2017. Construction activities commenced in the fourth quarter of 2017.

V. Dividend distribution to Progroup AG shareholders

The Annual General Meeting of Progroup AG held on April 20, 2017 resolved the payment of a gross dividend of EUR 7.25 per share entitled to dividends from the net retained profits reported in the annual financial statements for the 2016 financial year in an amount of EUR 158,410,638.55. Thus, the total amount of the distribution made on April 20, 2017 amounted to EUR 55,014,711.00. Moreover, the Extraordinary General Meeting on November 7, 2017 resolved the payment of an additional gross dividend of EUR 0.33 per share entitled to dividends. Thus, the total amount of the distribution made on November 7, 2017 amounted to EUR 2,504,117.88.

C. BASIS OF CONSOLIDATION

The subsidiaries which have been included in the consolidated financial statements and the unconsolidated subsidiaries are presented in section F. III. 3 and 4 of the notes to the consolidated financial statements. With effect of March 28, 2017, the assets and liabilities of the subsidiary Prowell S.r.l., which was founded at that date, were consolidated for the first time. Accordingly, the contributions to earnings attributable to this company are contained in the consolidated income statement for the period from January 1 to December 31, 2017 for the first time

D. CONSOLIDATION PRINCIPLES

Acquisitions made until December 31, 2009 continue to be accounted for in accordance with section 66(3) of the Einführungsgesetz zum Handelsgesetzbuch (EGHGB—Introductory Act to the German Commercial Code), using the carrying amount method under section 301(1) no. 1 of the HGB (former version) by eliminating the cost of the equity investments against the proportionate amount that these shares represent in the equity of the subsidiaries.

Acquisitions made after December 31, 2009 are accounted for in accordance with section 301(1) no. 1 of the HGB (as amended) using the purchase method. With this method, the acquisition cost of the investments is eliminated against the equity reflecting the fair value of the assets, liabilities, prepaid expenses and deferred income as well as special items to be included in the consolidated financial statements at the acquisition date.

Two affiliated companies have not been consolidated as permitted under section 296(2) of the HGB. These companies are not material to the presentation of a true and fair view of the group's net assets, financial position and results of operation as sales and total assets of these companies amount to less than 1% of consolidated sales and consolidated total assets. Consolidation as an associate has also been dispensed with on the grounds of immateriality as permitted under section 311(2) of the HGB. Shares in these companies are recognized at amortized cost. The companies are listed by name in section F. III. 4. of the notes to the consolidated financial statements.

Receivables and liabilities between consolidated companies have been eliminated, with receivables and liabilities amounting to KEUR 590,056 having been eliminated outside profit or loss.

In financial year 2016, intercompany profits from Propapier PM1 GmbH's and Propapier PM2 GmbH's paper deliveries to affiliated companies increased to KEUR 2,642; they were eliminated through profit or loss. Intragroup sales, intragroup other operating income and interest income have been eliminated against corresponding expenses, with expenses and income amounting to KEUR 423,868 having been eliminated.

Deferred taxes are generally recognized for initial consolidation adjustments recognized outside profit or loss as well as for consolidation adjustments recognized through profit or loss. In 2017, consolidation adjustments recognized through profit or loss related exclusively to the elimination of intercompany

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profits. Deferred tax assets of KEUR 1,150 (2016: KEUR 362) were recognized on eliminated intercompany profits of KEUR 3,855 (2016: KEUR 1,213).

E. SIGNIFICANT ACCOUNTING POLICIES

I. Disclosure of accounting policies applied

Intangible assets are measured at cost less amortization. Amortization is calculated on a straight-line basis over the standard useful lives. The intangible assets are amortized over a useful life of 3 to 10 years. To the extent that the fair values of individual intangible fixed assets fall below their carrying amounts, additional impairment losses are recorded in case of an expected permanent impairment.

Tangible fixed assets are measured at purchase and production cost less depreciation. Depreciation on additions to tangible fixed assets is generally recorded pro rata temporis. To the extent that the fair values of individual assets fall below their carrying amounts, additional impairment losses are recorded in case of an expected permanent impairment.

The purchase costs comprise expenses incurred to acquire an asset and to bring it to its working condition to the extent that such costs can be allocated individually to such asset. Production cost comprises, if applicable, direct material costs, direct labor costs and special costs of production, appropriate indirect material costs and indirect labor costs, general and administrative costs and expenses for social amenities, for voluntary social benefits and for occupational pensions. Borrowing costs have also been included in production cost to the extent that they were attributable to the period of production.

Depreciation is calculated on a straight-line basis over the standard useful lives. Tangible fixed assets and buildings are depreciated over the period of 3 to 33 years.

Straight-line depreciation rates are increased by 50% for fixed assets which are used throughout the year in three-shift operations. Prepayments made are presented in the balance sheet at their nominal amount.

Investment grants are reported separately at their nominal amount on the liabilities side under the special item "investment grants for assets" and are reversed in accordance with the useful lives of the fixed assets for which the grants were awarded.

Low-value assets costing up to EUR 150.00 each are fully written off in the year of acquisition. Assets which are capable of being used independently and which cost between EUR 150.00 and EUR 1,000.00 are posted to a collective item in the year of acquisition; this collective item is reversed as a charge to profit or loss over 5 years.

Financial assets are measured at cost or, in the event of an expected permanent impairment, at their lower fair value as at the balance sheet date.

Inventories are measured at cost, taking account of the lower of cost or market value. Appropriate valuation allowances are recorded for any identifiable risks resulting from above-average storage periods, reduced recoverability and/or lower replacement costs. In all cases, fair value measurement was applied, i. e. write-downs are recognized to the extent that the expected selling prices less costs incurred prior to disposal result in a lower fair value.

Raw materials, consumables and supplies are measured at actual cost or, taking account of the principle of lower of cost or market value, at lower market values as at the reporting date. Replacement parts for machines are also recognized under raw materials, consumables and supplies. Appropriate valuation allowances are applied to inventories which are obsolete, second-hand, damaged or slow-moving. Lump-sum valuation allowances amounting to KEUR 1,834 (previous year: KEUR 1,629) were applied to replacement parts which are obsolete, second-hand or slow-moving.

Work in process and finished goods are measured at production cost. Production cost comprises, if applicable, direct material costs, direct labor costs and special costs of production, appropriate and

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necessary indirect material costs, indirect labor costs, depreciation and amortization of fixed assets that is attributable to the production process and general and administrative costs and costs of occupational pensions. Borrowing costs are not included in production cost.

Receivables and other assets as well as the remaining assets are recognized at their principal amount or at their lower fair value as at the balance sheet date.

Appropriate valuation allowances are applied to receivables whose recoverability is associated with identifiable risks; irrecoverable receivables are written off in full. To cover the general risk from trade receivables, a global valuation allowance of 1% is recognized on domestic and foreign receivables (net of value added tax) which are not subject to a specific valuation allowance.

Cash-in-hand and bank balances are measured at their nominal amounts.

Payments before the balance sheet date are recognized as **prepaid expenses** to the extent that they represent an expense for a specific period of time after this date.

Deferred taxes are recognized at their calculated amount. For further explanations, please refer to Chapter F.

Subscribed capital is recognized at calculated amount.

Provisions are recognized at the settlement amount dictated by prudent business judgement. Provisions are recognized for liabilities of uncertain timing and/or amount as well as for losses from onerous contracts. All risks arising up to the balance sheet date and identifiable up to the date of the preparation of the financial statements have been taken into account. Provisions with a remaining term of more than one year have been discounted using the average market interest rate of the last seven years applicable for their remaining term, while pension provisions are discounted using the average market interest rate of the past ten years.

Liabilities are carried at their settlement amount.

Payments received before the reporting date are recognized as **deferred income** to the extent that they represent income for a specific time period after this date.

II. Currency translation disclosures

Receivables, other assets, cash and cash equivalents and provisions and liabilities denominated in foreign currencies are translated during the year into euros. Measurement as at the balance sheet date is at the December 31, 2017 closing rate, with the principle of lower of cost or market value, or higher settlement amount, as appropriate, being taken into account for receivables and liabilities with a maturity of over one year in accordance with section 256a HGB.

Foreign exchange gains or losses arising from currency translation are recognized in other operating income or expenses.

Translation of foreign subsidiary annual financial statements is carried out using the modified closing rate method in accordance with section 308a HGB.

Currency translation differences from the consolidation of intercompany balances are recognized directly in currency translation adjustments in equity.

A currency forward was concluded to hedge the currency risk of a loan granted by Progroup AG to the subsidiary Prowell Ltd. in the amount of KGBP 7,146. A hedging relationship was established within the meaning of section 254 of the HGB. The effective portions of the established hedging relationships are accounted for in the financial statements using the so-called gross hedge presentation method (*Durchbuchungsmethode*). The currency forward contract has a negative market value of KEUR 35 as at December 31, 2017, which was recorded in currency translation adjustments in equity. The fair value was derived from the closing rate and the risk-free interest rate based on the cost-of-carry method.

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**F. DISCLOSURES AND EXPLANATIONS ON INDIVIDUAL LINE ITEMS IN THE
CONSOLIDATED BALANCE SHEET AND CONSOLIDATED INCOME STATEMENT**

The financial year of all companies included in the consolidated financial statements corresponds to the calendar year.

I. Consolidated balance sheet

1. Fixed assets

In connection with the acquisition of EnBW Propower GmbH in 2015 and related revaluation of acquired fixed assets in correspondence with the capital consolidation, an operating license at acquisition cost of KEUR 23,894 has been acquired. Subsequently, the operating license is amortized since 2015 over a remaining useful life of 10 years. As at the balance sheet date, the carrying amount is KEUR 19,257 with a remaining term of 8 years.

The classification and movement in the financial year of the fixed asset accounts recognized in the consolidated financial statements are separately presented as an appendix to the notes to the financial statements in the fixed asset movement schedule.

Fixed asset production cost includes capitalized borrowing costs of KEUR 200 which were attributable to the period of production. The capitalized borrowing costs were recognized in fixed assets in the line item "Construction in process". Interest capitalized in previous years was capitalized in tangible fixed assets, primarily in buildings and technical equipment and machinery.

The value of construction in process as at December 31, 2017 is EUR 32.7 million (previous year: EUR 26.2 million), mainly resulting from the two production sites in Ellesmere Port, UK, and Drizzona, Italy. This includes own work capitalized in the amount of EUR 1.7 million.

2. Receivables and other assets

As in the previous year, receivables and other assets do not include receivables due in more than one year.

As in the previous year, receivables from affiliated companies resulted exclusively from Group trading with affiliated companies not fully consolidated.

Furthermore, other assets include input tax refund claims of the entire VAT group in an amount of KEUR 280 (previous year: KEUR 176), which in accordance with tax law provisions come into existence only after the balance sheet date.

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3. Deferred taxes

<u>Balance sheet account</u>	<u>Deferred tax assets 12/31/2017</u>	<u>Deferred tax assets 12/31/2016</u>	<u>Deferred tax liabilities 12/31/2017</u>	<u>Deferred tax liabilities 12/31/2016</u>
	KEUR	KEUR	KEUR	KEUR
Tax loss carryforwards/eligible interest carried forward	4,129	9,611	0	0
Elimination of intercompany profits	1,150	362	0	0
Assets				
Intangible fixed assets	0	0	5,338	5,988
Tangible fixed assets/financial assets	1,805	1,808	865	849
Inventories, receivables and other assets	231	163	483	387
Liabilities				
Provisions	261	384	2	0
Liabilities	0	0	31	19
Total deferred tax (gross)	<u>7,576</u>	<u>12,328</u>	<u>6,719</u>	<u>7,243</u>
Deferred tax disclosed (gross and rounded)	<u>857</u>	<u>5,085</u>		

To determine deferred taxes based on temporary differences between the financial statement carrying amounts for assets, liabilities, prepaid expenses and deferred charges and deferred income, and their tax bases, or based on tax loss carryforwards and interest carried forward, the amounts of the resulting tax liability and benefit were measured at the individual companies' tax rates (19% - 29.83%) at the point in time when the differences are reversed; they were not discounted. Deferred tax assets relating to loss carryforwards were taken into account if it was probable that the loss would be offset within the next five years. Today's assessment may change in accordance with the companies' income positions and tax legislation in future years and may require to be adjusted. In addition, deferred tax assets were recognized in financial year 2017 on consolidation adjustments for the elimination of intercompany profits in accordance with § 306 HGB as well as from initial consolidation outside profit or loss of EnBW Propower GmbH acquired in 2015.

Deferred tax assets on tax loss carryforwards KEUR 650 (previous year: KEUR 271) and eligible interest carried forward (German earnings stripping rule; KEUR 3,479 (previous year: KEUR 9,340)) were fully recognized because the underlying tax planning confirms that the amounts recognized could actually be utilized to reduce tax liabilities in the next 5 years. Deferred tax assets and deferred tax liabilities are reported net.

4. Subscribed capital

The share capital of the parent company is EUR 7,588,236.00 and is divided into 7,588,236 no-par value shares with a calculated amount of subscribed capital of one euro each.

Distribution potential is based on the annual financial statements of Progroup AG. The articles of association do not contain any restrictions on distributions. There is a statutory restriction on distributions equivalent to the deferred tax assets in the annual financial statements of Progroup AG pursuant to section 268(8) of the HGB in the amount of EUR 4.3 million as well as from the measurement of the pension liabilities pursuant to section 253(6) of the HGB in the amount of EUR 0.2 million.

5. Investment grants for fixed assets

Investment grants for fixed assets are reported as a special reserve and are reversed on a pro rata basis in accordance with the useful lives of the fixed assets for which the grants were awarded.

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6. Pension provisions

Pension provisions are measured in accordance with the PUC method using Prof. Dr. Klaus Heubeck's 2005 G mortality tables. All pension provisions were discounted at the market interest rate of the preceding ten years published by Deutsche Bundesbank (10-year average interest rate) assuming that all liabilities have a remaining maturity of 15 years (section 253(2) sent. 2 of the HGB).

Measurement of pension provisions is based on the following assumptions:

- Pension increase: +2% (unchanged from 2016)
- Salary increase: 0% (unchanged from 2016)
- Interest rate (10-year average): 3.68%
- Interest rate (7-year average): 2.8%

Pension obligations for which provisions were required to be recognized amounted to KEUR 1,290 as at the balance sheet date (10-year average rate). These obligations are offset against assets that serve exclusively to settle liabilities from post-employment benefit obligations and are exempt from attachment by third parties (so-called plan assets). A pledged pension liability insurance policy was classified as a plan asset. Plan assets that serve a specific purpose, have been pledged and are protected against insolvency were measured based on information from the insurer as at December 31, 2017, at the asset value (KEUR 1,118; this corresponds to the fair value). The balance remaining after the offset with the carrying amount of the pension provision (KEUR 173) is reported under "provisions for pensions". Effect on profit in 2017:

- Interest expense from pension provision: KEUR 43
- Interest income from plan assets: KEUR 22

The balance of interest expenses from the measurement of the pension provision (including the effect from changes in interest) and interest income from the measurement of the plan assets was reported net in the financial result. For the financial year, the balance between the measurement of the pension provision with the 7-year average interest rate and the 10-year average interest rate amounts to KEUR 159 and is subject to a distribution restriction at the level of the individual financial statements of Progroup AG.

7. Tax provisions

<u>Tax provisions</u>	<u>2017</u>	<u>2016</u>
	<u>KEUR</u>	<u>KEUR</u>
Corporate income tax	6,249	3,955
Trade tax	7,428	4,102
Other tax	53	47
	<u>13,732</u>	<u>8,104</u>

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8. Other provisions

This item comprises the following provisions:

<u>Provision for</u>	<u>2017</u>	<u>2016</u>
	<u>KEUR</u>	<u>KEUR</u>
Outstanding invoices	22,138	20,577
Personnel expenses (bonuses, special payments, severance payments, holiday obligations, overtime)	9,678	7,102
Bonuses still to be granted	8,929	6,754
Costs of preparing the annual financial statements, legal and consulting costs, storage	4,986	2,327
Maintenance not undertaken	1,190	1,555
<i>Berufsgenossenschaft</i> (Employer's Liability Insurance Association), <i>Schwerbehindertenabgabe</i> (levy for not employing disabled persons)	707	638
	<u>47,628</u>	<u>38,953</u>

9. Liabilities

<u>Liabilities</u> <u>(in KEUR)</u>	<u>Remaining Term</u>			<u>Total</u>	<u>Thereof</u> <u>secured</u>
	<u>Less than</u> <u>1 year</u>	<u>more than</u> <u>1 year</u>	<u>thereof more</u> <u>than 5 years</u>		
Bonds	0	495,000	150,000	495,000	495,000
Previous year	0	420,000	420,000	420,000	420,000
Bank loans	7,996	34,523	0	42,519	42,519
Previous year	6,926	19,349	0	26,275	26,275
Trade payables	51,524	0	0	51,524	0
Previous year	58,020	0	0	58,020	0
Other liabilities	12,161	0	0	12,161	2,947
Previous year	10,649	7,539	1,505	18,188	3,472
Total liabilities	<u>71,681</u>	<u>529,523</u>	<u>150,000</u>	<u>601,204</u>	<u>540,466</u>
Previous year	75,595	446,888	421,505	522,483	449,747

Of the liabilities reported, a total of KEUR 540,466 is mainly secured as follows:

- Pledging of shares in Progroup AG and company shares in its main subsidiaries included in the consolidated financial statement of Progroup AG (Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, PROLOGISTIK GmbH, Proservice GmbH, Prowell sp. z o.o., Prowell s.r.o., Prowell S.A.S., Prowell Ltd.)
- Pledging of all bank deposits of Progroup AG in Germany
- Real estate liens (i. e. land charges or mortgages) on all substantial land and buildings of Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell sp. z o.o., and Prowell s.r.o.
- Securitization of insurance claims and receivables against affiliated companies by Progroup AG, Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell sp. z o.o., Prowell s.r.o. and Prowell Ltd. and assignment by way of security of receivables against affiliated companies by JH-Holding GmbH
- Assignment of technical equipment and machinery as well as other office equipment of Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell sp. z o.o., Prowell s.r.o. and Prowell Ltd.

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In addition to the issuance of bonds (amount as at December 31, 2017: EUR 495 million), there still is a revolving credit facility in the amount of EUR 50 million which was granted by a syndicate of banks (Super Senior Revolving Credit Facility). As at December 31, 2017, the revolving credit facility was not utilized by the company or any of its subsidiaries.

Moreover, as at December 31, 2017, there are two PLN loans with an original amount of PLN 214 million. The loan balance was reduced through scheduled repayments to a total of PLN 177.6 million as at December 31, 2017. As at December 21, 2017, Prowell Ltd. entered into a loan agreement in the amount of GBP 70 million with Goldman Sachs Bank USA, and Progroup AG concluded a loan in the amount of EUR 38.5 million with IKB Bank AG. Both loans had not been utilized as at December 31, 2017.

The bonds, the Super Senior Revolving Credit Facility, the PLN loans, the GBP loan and the EUR loan are secured pari passu as mentioned above. In an Intercreditor Agreement the creditors under the Super Senior Revolving Credit Facility were granted priority satisfaction from possible proceeds of sale.

Trade payables are also secured under the customary retention of title.

KEUR 6,639 of other liabilities was attributable to tax liabilities (previous year: KEUR 3,052) and KEUR 658 to social security liabilities (previous year: KEUR 665).

As at December 31, 2016, there were liabilities arising from a hire purchase agreement for the corrugated board plant in Plössberg. This agreement was terminated as at December 31, 2017; accordingly, this liability does not exist as at the balance sheet date.

10. Deferred income

This item comprises the difference (KEUR 3,236) between the settlement value and the payment amount of the bond issued on December 8, 2015 (EUR 95 million) which will be released as adjustment to interest expenses through profit or loss over the term of the bond until May 1, 2022. Furthermore, it comprises a compensation payment received in the amount of KEUR 355 for a steam supply contract which is released to income over the contractual term until January 31, 2019.

II. Consolidated income statement

The consolidated income statement has been prepared under the total cost (nature of expense) method.

The Prowell S.r.l. in Drizzona, Italy, which was newly founded in 2017, was included in the consolidated financial statements for the first time as at March 28, 2017. Accordingly, the contributions to earnings attributable to this company are included in the consolidated income statement for the period from January 1 to December 31, 2017 for the first time.

1. Sales

Sales breakdown by country of origin

		<u>2017</u>	<u>2016</u>
		<u>KEUR</u>	<u>KEUR</u>
Domestic	Corrugated board	343,957	311,380
	Containerboard	99,729	114,256
	Other	40,605	29,726
Other European countries	Corrugated board	319,965	277,866
Total		<u>804,256</u>	<u>733,228</u>

PROGROUP AG
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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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2. Other operating income

This account includes income from the proportionate reversal of investment grants and allowances for fixed assets amounting to KEUR 252 (previous year: KEUR 252).

Other operating income also includes prior-period income of KEUR 12,567 (previous year: KEUR 11,204). This mainly comprises income from the reversal of provisions in the amount of KEUR 4,050 (previous year: KEUR 5,367) as well as income from increased prior-year energy tax refunds amounting to KEUR 5,927 (previous year: KEUR 1,511).

Furthermore, it includes currency translation gains of KEUR 3,930 (previous year: KEUR 1,920).

3. Cost of materials

The cost of materials for the financial year amounts to KEUR 430,481 (previous year: KEUR 371,550).

4. Personnel expenses

The personnel expenses for the financial year in a total amount of KEUR 68,326 (previous year: KEUR 61,423) include expenses for pensions amounting to KEUR 258 in the financial year (previous year: KEUR 134).

5. Amortization and depreciation of fixed intangible and tangible assets

The amortization and depreciation of the financial year amount to KEUR 50,032 (previous year: KEUR 47,372).

The significant changes compared to the previous year is due to an impairment loss in relation to an older corrugated board plant in the amount of KEUR 1,542.

6. Other operating expenses

This account includes prior-period expenses amounting to KEUR 1,935 (previous year: KEUR 2,548).

In addition, this account includes expenses of an extraordinary dimension in the amount of KEUR 6,240 (previous year: KEUR 14,835), largely consisting of bank charges and consulting fees already incurred in connection with the initiated refinancing which is intended to be completed in the second quarter of 2018. The previous year's figure includes additional costs in the amount of KEUR 13,914 which were caused by an unscheduled downtime of the combined heat and power plant of Propower GmbH in Eisenhüttenstadt.

Furthermore, the item contains rental and leasing expenses of KEUR 6,624 (previous year: KEUR 6,396) as well as expenses from currency translation of KEUR 3,340 (previous year: KEUR 3,405).

7. Other interest and similar income

This item amounts to KEUR 65 (previous year: KEUR 144) and does not include income from the discounting of provisions in the financial year 2017 (previous year: KEUR 33).

8. Interest and similar expenses

Overall, the amount of interest paid in financial year 2017 was KEUR 24,891 and the amount of interest received was KEUR 53. The expenses from discount unwinding of discounted pension provisions amounted to KEUR 21 as at December 31, 2017 (previous year: KEUR 39). Other provisions were not discounted in the financial year 2017 (previous year: KEUR 12).

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9. Taxes on income

This account mainly includes trade tax and corporate income tax for the current financial year in the amount of KEUR 23,775 (previous year: KEUR 18,742) and refunds payments of trade tax and corporate income tax for previous years in the amount of KEUR 8 (previous year: KEUR 456). It also includes expenses arising from the adjustment of deferred tax assets in the amount of KEUR 4,228 (previous year: KEUR 593). In the financial year 2017, the total amount of tax paid was KEUR 17,939.

III. Other disclosures

1. Contingent liabilities, off-balance sheet transactions and other financial commitments

In addition to the bonds (amount as at December 31, 2017: EUR 495 million), there still is a revolving credit facility in the amount of EUR 50 million which was granted by a syndicate of banks (Super Senior Revolving Credit Facility). As at December 31, 2017, the revolving credit facility was not utilized by the company or any of its subsidiaries.

The bonds outstanding on the balance sheet date and the Super Senior Revolving Credit Facility, which can also be utilized by subsidiaries of Progroup AG, as well as the two loans in the amount of PLN 177.6 million as at December 31, 2017 granted to Prowell sp. z o. o. by Commerzbank Aktiengesellschaft, are secured by pledging all shares in Progroup AG and the company shares in its main subsidiaries, by pledging the bank deposits of the holding company, by assigning tangible fixed assets of the subsidiaries, by granting real estate liens and by assignments of certain receivables. Furthermore, certain covenants apply with regard to the loans and/or bonds.

The bonds, the Super Senior Revolving Credit Facility as well as two loans granted to Prowell sp. z o. o. by Commerzbank Aktiengesellschaft in the amount of PLN 177.6 million are secured pari passu as mentioned above. However, in an Intercreditor Agreement the creditors under the Super Senior Revolving Credit Facility were granted a priority satisfaction from any proceeds from realization.

Furthermore, the parent company has provided letters of comfort and guarantees for a total amount of KEUR 29,921 to various suppliers of subsidiaries. The parent company also has assumed joint and several co-liability vis-à-vis CommerzFactoring GmbH for obligations of Prowell GmbH from a forfaiting framework agreement.

The risk of enforcement should be regarded as low as none of the affiliates have a strained liquidity position.

The companies lease forklifts and trucks under operating lease agreements so that these assets are not recognized in the companies' financial statements. As at December 31, 2017, the remaining obligations from the lease agreements were KEUR 8,367. In addition, there were rental and lease agreements for movable assets as well as for the rental of factory buildings and areas as at the balance sheet date. As at December 31, 2017, the remaining obligations from these rental/lease agreements for subsequent years were KEUR 19,193 (nominal amount). The advantage of these agreements is that a lower amount of capital is tied up in the beginning than with a purchase and there is an absence of realization risk. Risks could arise from the lease agreement periods if the assets can no longer be fully utilized, although there are currently no indications of this.

As at the balance sheet date, there were steam supply contracts in place for the reliable supply of energy at fixed prices which did not lead, however, to a recognition of a provision for contingent losses. These agreements have terms of up to 8 years (December 31, 2025).

Due to specific contractual agreements for energy supply entered into as at the balance sheet date, total obligations for the following year 2018 amount to KEUR 9,766 (December 31, 2016: KEUR 11,908).

In the previous year, there was an obligation from a consignment agreement amounting to KEUR 39.

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In addition, as at the balance sheet date there were contractual purchase commitments for waste paper and corrugated board base paper supplies; respective commitments for the following year are KEUR 45,760 (December 31, 2016: KEUR 46,485). Furthermore, there are outstanding purchase commitments for other services in the amount of KEUR 52,714 (December 31, 2016: KEUR 19,496).

2. Employees

The average number of employees during the financial year changed as follows:

	2017	2016
Salaried employees	248	230
Wage earners	792	748
Total	<u>1,040</u>	<u>978</u>

The disclosure only includes employees of consolidated companies.

3. List of companies included in the consolidated financial statements

Consolidated companies

	Percentage shareholding as at 12/31/2017
	%
Prowell GmbH, Offenbach a. d. Queich, Germany	100.00
Prowell Verwaltungs GmbH, Offenbach a. d. Queich, Germany	100.00
Propapier PM1 GmbH, Burg, Germany	100.00
Prowell S. A. S., Douvrin, France*	100.00
Propower GmbH, Eisenhüttenstadt, Germany (formerly EnBW Propower GmbH, Eisenhüttenstadt, Germany)	100.00
Prologistik GmbH, Burg, Germany	100.00
Proservice GmbH, Offenbach a. d. Queich, Germany	100.00
Prowell s. r. o., Rokycany, Czech Republic*	100.00
Prowell Sp. z o.o., Stryków, Poland*	100.00
Propapier PM2 GmbH, Eisenhüttenstadt, Germany*	100.00
Prowell Ltd., Ellesmere Port, England*	100.00
Prowell S.r.l., Drizzona, Italy*	100.00

* indirect equity interest

4. Unconsolidated affiliated companies

	Percentage shareholding as at 12/31/2017	Equity as at 12/31/2017	Net income/loss for 2017
	%	KEUR	KEUR
Profund GmbH, Offenbach a. d. Queich, Germany	100.00	12	0
Projekt 3 CZ Beteiligungs GmbH, Offenbach a. d. Queich, Germany*	100.00	23	0

* indirect equity interest

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5. Holding Company

The holding company of the largest and smallest consolidation group is JH-Holding GmbH, Neustadt a. d. Weinstrasse, Germany. The consolidated financial statements of JH-Holding GmbH are submitted to the operator of the Bundesanzeiger (Federal Gazette) for publication.

6. Subsidiaries

Propapier PM1 GmbH, Burg, Germany, Propapier PM2 GmbH, Eisenhüttenstadt, Germany, Propower GmbH, Eisenhüttenstadt, Germany and Prowell GmbH, Offenbach a. d. Queich, Germany, have made use of the exemption pursuant to section 264(3) HGB.

7. Emission allowances

At the balance sheet date, the Group held 581,284 CO₂ emission allowances (allocation for 2017: 497,472 CO₂ emission allowances). These were acquired free of charge as part of a public allocation. The allowances are recognized at their reminder value. The quoted market price as at the balance sheet date was approximately EUR 8 per certificate (December 31, 2016: approximately EUR 7 per certificate). The fair value of the allowances recognized at a carrying amount of KEUR 0 therefore amounted to EUR 4.0 million (December 31, 2016: EUR 3.5 million).

8. Cash flow statement

The cash flow statement has been prepared in accordance with the provisions of DRS 21 (German Accounting Standard—GAS 21) using the indirect method. Cash funds have been exclusively defined as cash and cash equivalents.

9. Proposal of the appropriation of net income

The Management Board proposes to the general meeting of shareholders to distribute to the shareholders from the net retained profits of Progroup AG reported in the annual financial statements for the 2017 financial year in an amount of EUR 168,315,788.56 dividend of EUR 1.00 (gross) per share entitled to dividends, i. e. a total amount of EUR 7,588,236.00, and to carry the remaining net retained profit in the amount of EUR 160,727,552.56 forward to new account.

10. Management Board

The following were members at the Management Board in the financial year:

Jürgen Heindl, Dipl.-Wirt.-Ing., Neustadt a. d. Weinstrasse, Germany (Chairman of the Management Board)

Dr. Volker Metz, Dipl.-Kfm., HochdorfAssenheim, Germany (CFO)

Philipp Kosloh, Dipl.-Ing., Speyer am Rhein, Germany (Deputy Management Board Member)

Maximilian Heindl, Dipl.-Wirt.-Ing., Neustadt a. d. Weinstrasse, Germany (Deputy Management Board Member) since August 1, 2017

11. Supervisory Board

The Supervisory Board was composed as follows during the financial year:

Rainer Dietmann, Lawyer, Partner of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, Mannheim, Germany (Chairman)

Prof. Dr. Rudolf Wimmer, Vice President of Witten/Herdecke University, Vienna, Austria (Vice Chairman)

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Prof. Dr. Hermut Kormann, Honorary Professor at Leipzig University and at Zeppelin University Friedrichshafen, Germany

12. Total remuneration

The Management Board's total remuneration in the financial year for exercising its responsibilities in the holding company and the subsidiaries was KEUR 5,636 (2016: KEUR 3,723).

Supervisory Board remuneration in 2017 amounted to KEUR 215 (2016: KEUR 68).

13. Auditors' fees

The group auditor's fees recognized as an expense in the financial year amounted to KEUR 218 (2016: KEUR 208) for audit services and KEUR 38 (2016: KEUR 32) for other assurance services.

Furthermore, expenses for other services amounted to KEUR 320 (previous year: KEUR 0).

IV. Report on subsequent events

On January 16, 2018, Prowell GmbH acquired a plot of land in Offenbach with a value of EUR 1.25 million.

No further operative or structural changes or business matters have occurred after the balance sheet date that have a material effect on the net assets, financial position and results of operation of Progroup AG.

Offenbach a. d. Queich, Germany, February 13, 2018

Management Board

Jürgen Heindl

Dr. Volker Metz

Philipp Kosloh

Maximilian Heindl

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**Consolidated Fixed Asset Movement
Schedule for 2017**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED FIXED ASSET-MOVEMENT SCHEDULE for 2017

	Acquisition or manufacturing cost						Amortization/depreciation					Net book values	
	01/01/2017	Exchange differences	Additions	Disposals	Retransfers	12/31/2017	01/01/2017	Exchange differences	Additions	Disposals	12/31/2017	12/31/2017	12/31/2016
	€	€	€	€	€	€	€	€	€	€	€	€	€
A. Fixed assets													
I. Intangible assets													
Purchased concessions, industrial property and similar rights and assets, and licenses in such rights and assets . .	31,105,399.14	6,966.66	240,693.13	0.00	0.00	31,353,058.93	8,752,911.22	5,190.98	2,820,579.53	0.00	11,578,681.73	19,774,377.20	22,352,487.92
	31,105,399.14	6,966.66	240,693.13	0.00	0.00	31,353,058.93	8,752,911.22	5,190.98	2,820,579.53	0.00	11,578,681.73	19,774,377.20	22,352,487.92
II. Tangible assets													
1. Land and buildings*	276,204,668.26	3,527,314.54	6,378,665.14	0.00	9,636,992.79	295,747,640.73	101,199,771.95	1,125,399.49	8,925,895.17	0.00	111,251,066.61	184,496,574.12	175,004,896.31
2. Technical equipment and machinery . .	833,878,255.03	2,701,797.01	7,950,090.16	149,690.00	13,215,598.80	857,596,051.00	423,911,109.19	1,675,692.14	35,110,421.03	149,690.00	460,547,532.36	397,048,518.64	409,967,145.84
3. Other equipment, factory and office equipment	19,080,702.98	57,059.56	2,149,143.04	390,051.57	132,307.08	21,029,161.09	12,826,227.49	45,757.38	1,633,871.12	380,573.57	14,125,282.42	6,903,878.67	6,254,475.49
4. Prepayments and construction in process	26,238,988.67	706,721.48	30,840,573.57	540,043.98	−22,984,898.67	34,261,341.07	0.00	0.01	1,541,637.21	0.00	1,541,637.22	32,719,703.85	26,238,988.67
	1,155,402,614.94	6,992,892.59	47,318,471.91	1,079,785.55	0.00	1,208,634,193.89	537,937,108.63	2,846,849.02	47,211,824.53	530,263.57	587,465,518.61	621,168,675.28	617,465,506.31
III. Financial assets													
Shares in affiliated companies	37,375.00	0.00	0.00	0.00	0.00	37,375.00	0.00	0.00	0.00	0.00	0.00	37,375.00	37,375.00
	37,375.00	0.00	0.00	0.00	0.00	37,375.00	0.00	0.00	0.00	0.00	0.00	37,375.00	37,375.00
	1,186,545,389.08	6,999,859.25	47,559,165.04	1,079,785.55	0.00	1,240,024,627.82	546,690,019.85	2,852,040.00	50,032,404.06	530,263.57	599,044,200.34	640,980,427.48	639,855,369.23

* including buildings on leasehold land

**Consolidated Cash Flow Statement
for the Period
from January 1 to December 31, 2017**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED CASH FLOW STATEMENT
FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2017

	2017	2016
	K€	K€
1. Cash flows from operating activities		
Consolidated net income/loss for the period	72,412	61,404
Amortization and depreciation of fixed assets	50,032	47,372
Increase (+)/decrease (–) in provisions	6,183	– 6,709
Other non-cash expenses (+)/income (–)	– 1,228	– 496
Increase (–)/decrease (+) in inventories, trade receivables and other assets*	– 32,056	3,049
Increase (+)/decrease (–) in trade payables and other liabilities*	– 10,431	9,983
Gain(–)/loss(+) on disposal of fixed assets	0	510
Interest expenses (+)/income (–)	23,613	25,190
Expenditure (+)/income (–) of exceptional size or incidence	6,240	14,835
Income tax expenses (+)/income (–)	28,058	19,793
Cash payments (–) relating to expenditure of exceptional size or incidence	– 2,178	– 11,736
Income taxes paid (–)	– 17,939	– 10,631
Cash flows from operating activities	122,706	152,564
2. Cash flows from investing activities		
Proceeds (+) from disposal of intangible and tangible fixed assets	150	144
Payments (–) to acquire intangible fixed assets	– 176	– 472
Payments (–) to acquire tangible fixed assets	– 47,762	– 22,976
Interest received (+)	53	103
Cash flows from investing activities	– 47,735	– 23,201
3. Cash flows from financing activities		
Proceeds (+) from the issuance of bonds and borrowings	173,187	2,081
Cash repayments (–) of bonds and borrowings	– 83,642	– 75,847
Proceeds (+) from grants received	0	313
Cash payments (–) relating to expenditure of exceptional size or incidence	– 3,317	– 4,109
Interest paid (–)	– 24,891	– 26,473
Dividends paid to shareholders of the parent entity (–)	– 57,519	– 6,222
Cash flows from financing activities	3,818	– 110,257
4. Cash funds at end of period		
Net change in cash funds	78,789	19,106
Effect on cash funds of exchange rate movements	1,787	– 2,498
Cash funds at beginning of period	37,370	20,762
Cash funds at end of period	117,946	37,370
5. Composition of cash funds		
Cash and cash equivalents	117,946	37,370
Cash funds at end of period	117,946	37,370

* Not attributable to investing or financing activities

Consolidated Statement of Changes in Equity for 2017

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR 2017

	Subscribed capital	Capital reserve	Revenue reserves	Consolidated net retained profits ⁽¹⁾	Currency translation adjustment	Group equity
	K€	K€	K€	K€	K€	K€
January 1, 2016	7,588	75,414	1,408	123,284	910	208,604
Distribution of profit	0	0	0	– 6,222	0	– 6,222
Consolidated net profit for the year .	0	0	0	61,404	0	61,404
Other changes	0	0	0	0	– 4,177	– 4,177
December 31, 2016	7,588	75,414	1,408	178,466	– 3,267	259,609
January 1, 2017	7,588	75,414	1,408	178,466	– 3,267	259,609
Distribution of profit	0	0	0	– 57,519	0	– 57,519
Consolidated net profit for the year .	0	0	0	72,411	0	72,411
Other changes	0	0	0	0	2,813	2,813
December 31, 2017	7,588	75,414	1,408	193,358	– 454	277,314

- (1) The consolidated net retained profits in the amount of the deferred tax assets recognized in Progroup AG's annual financial statements as well as from the measurement of pension obligations are subject to a distribution restriction (2017: €4.4 million; 2016: €10.3 million). As of December 31, 2017, €164.7 million (December 31, 2016: €148.0 million) are available for distribution to the shareholders from the annual financial statements of Progroup AG.

The following auditor's report (*Bestätigungsvermerk*) has been issued in accordance with Section 322 of the German Commercial Code (*Handelsgesetzbuch*) on the consolidated financial statements and group management report (*Konzernlagebericht*) of Progroup AG as of and for the fiscal year ended December 31, 2017. The group management report is neither included nor incorporated by reference in this offering memorandum.

INDEPENDENT AUDITOR'S REPORT

To Progroup AG, Offenbach a.d. Queich

Audit Opinions

We have audited the consolidated financial statements of Progroup AG, Offenbach a.d. Queich, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31. December 2017, and the consolidated income statement, consolidated statement of changes in equity and consolidated cash flow statement for the financial year from 1. January to 31. December 2017, and notes to the consolidated financial statements, including the recognition and measurement policies presented therein. In addition, we have audited the group management report of Progroup AG for the financial year from 1. January to 31. December 2017.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the requirements of German commercial law and give a true and fair view of the assets, liabilities and financial position of the Group as at 31. December 2017 and of its financial performance for the financial year from 1. January to 31. December 2017 in compliance with German Legally Required Accounting Principles, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to Article 322 paragraph 3 sentence 1 Handelsgesetzbuch: German Commercial Code, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Other Information

The executive directors are responsible for the other information.

The letter to investors is expected to be made available to us after the date of the auditor's report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or

- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with the requirements of German commercial law, and that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with German Legally Required Accounting Principles. In addition the executive directors are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with German Legally Required Accounting Principles.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Mannheim, February 13, 2018

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Dr. Ralf Worster
Wirtschaftsprüfer
(German Public Auditor)

ppa. Martin Knoll
Wirtschaftsprüfer
(German Public Auditor)

**Consolidated Financial Statements
for the Financial Year from
January 1 to December 31, 2016**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED BALANCE SHEET
AS OF DECEMBER 31, 2016

Assets

	<u>12/31/2016</u>	<u>12/31/2015</u>
	€	€
A. Fixed assets		
I. Intangible assets		
Purchased concessions, industrial property and similar rights and assets, and licenses in such rights and assets	22,352,487.92	24,736,580.71
	<u>22,352,487.92</u>	<u>24,736,580.71</u>
II. Tangible assets		
1. Land and buildings including buildings on leasehold land . .	175,004,896.31	183,689,176.78
2. Technical equipment and machinery	409,967,145.84	437,426,411.61
3. Other equipment, factory and office equipment	6,254,475.49	6,416,954.83
4. Prepayments and construction in process	26,238,988.67	5,179,074.67
	<u>617,465,506.31</u>	<u>632,711,617.89</u>
III. Financial assets		
1. Shares in affiliated companies	37,375.00	37,375.00
	<u>37,375.00</u>	<u>37,375.00</u>
	<u>639,855,369.23</u>	<u>657,485,573.60</u>
B. Current assets		
I. Inventories		
1. Raw materials, consumables and supplies	51,480,307.67	45,907,766.37
2. Work in process	18,396,052.55	24,339,031.17
3. Finished goods	4,038,107.33	4,649,389.71
4. Prepayments	29,331.24	128,784.67
	<u>73,943,798.79</u>	<u>75,024,971.92</u>
II. Receivables and other assets		
1. Trade receivables	59,561,522.43	57,593,158.73
2. Receivables from affiliated companies	52,117.58	30,184.28
3. Other assets	19,756,794.23	24,843,564.08
	<u>79,370,434.24</u>	<u>82,466,907.09</u>
III. Cash-in-hand, bank balances	37,370,276.21	20,762,316.53
	<u>190,684,509.24</u>	<u>178,254,195.54</u>
C. Prepaid expenses	<u>1,189,233.58</u>	<u>921,905.56</u>
D. Deferred taxes	<u>5,085,683.18</u>	<u>5,693,637.83</u>
	<u>836,814,795.23</u>	<u>842,355,312.53</u>

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED BALANCE SHEET (Continued)
AS OF DECEMBER 31, 2016

	<u>12/31/2016</u>	<u>12/31/2015</u>
	€	€
A. Equity		
I. Subscribed capital	7,588,236.00	7,588,236.00
II. Capital reserve	75,414,347.76	75,414,347.76
III. Other revenue reserves	1,407,760.39	1,407,760.39
IV. Currency translation adjustment	– 3,267,182.56	909,487.78
V. Consolidated net retained profits	178,465,411.73	123,283,924.86
	<u>259,608,573.32</u>	<u>208,603,756.79</u>
B. Investment grants for fixed assets	2,937,026.00	2,458,923.00
C. Provisions		
1. Provisions for pensions	34,574.11	69,732.48
2. Tax provisions	8,104,427.98	2,335,723.54
3. Other provisions	38,952,895.02	46,841,507.98
	<u>47,091,897.11</u>	<u>49,246,964.00</u>
D. Liabilities		
1. Bonds	420,000,000.00	495,000,000.00
2. Bank loans	26,274,666.13	36,209,860.50
3. Trade payables	58,019,725.77	32,784,234.89
4. Other liabilities	18,188,200.73	12,311,362.05
	<u>522,482,592.63</u>	<u>576,305,457.44</u>
E. Deferred income	4,694,706.17	5,740,211.30
	<u><u>836,814,795.23</u></u>	<u><u>842,355,312.53</u></u>

**Consolidated Income Statement
for the Period from
January 1 to December 31, 2016**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED INCOME STATEMENT
FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2016

	<u>2016</u>	<u>2015</u>
	€	€
1. Sales	733,227,890.08	689,939,667.02
2. Decrease (–)/increase in finished goods and work in process	– 6,554,261.00	3,812,158.26
3. Other own work capitalized	1,116,082.39	930,093.83
4. Other operating income	14,712,777.71	43,489,280.12
5. Cost of materials		
a) Cost of raw materials, consumables and supplies	– 309,632,342.08	– 275,325,753.51
b) Cost of purchased services	– 61,917,741.74	– 110,128,304.02
	– 371,550,083.82	– 385,454,057.53
6. Personnel expenses		
a) Wages and salaries	– 52,627,414.65	– 48,160,801.44
b) Social security and pensions	– 8,795,217.99	– 8,676,732.98
	– 61,422,632.64	– 56,837,534.42
7. Amortization and depreciation of fixed intangible and tangible assets	– 47,372,114.05	– 29,418,575.42
8. Other operating expenses	– 154,292,522.73	– 176,800,214.63
9. Other interest and similar income	144,147.55	149,663.45
10. Interest and similar expenses	– 25,333,903.47	– 21,881,234.34
11. Taxes on income	– 19,792,814.98	– 11,774,935.80
12. Earnings after taxes	62,882,565.04	56,154,310.54
13. Other taxes	– 1,478,724.63	– 1,749,043.64
14. Consolidated net income for the year	61,403,840.41	54,405,266.90
15. Consolidated unappropriated retained earnings brought forward	117,061,571.32	68,878,657.96
16. Consolidated net retained profits	178,465,411.73	123,283,924.86

**Notes to the Consolidated Financial Statements
For Financial Year 2016**

PROGROUP AG
OFFENBACH A. D. QUEICH, GERMANY
COMMERCIAL REGISTER LANDAU, HRB NO. 2268
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR FINANCIAL YEAR 2016

A. GENERAL INFORMATION

The consolidated financial statements of Progroup AG, comprising the consolidated balance sheet, consolidated income statement, notes to the consolidated financial statements, the consolidated cash flow statement and the consolidated statement of changes in equity, have been prepared in accordance with the applicable provisions of Parts One and Two of the Third Book of the Handelsgesetzbuch (HGB—German Commercial Code) and the supplementary provisions of the Aktiengesetz (AktG—German Stock Corporation Act).

In the interest of greater clarity and transparency, below-the-line items to be reported for consolidated balance sheet or consolidated income statement line items pursuant to the statutory provisions, as well as disclosures and below-the-line items which may be reported either in the consolidated balance sheet and consolidated income statement or in the notes to the consolidated financial statements have all been reported in the notes to the consolidated financial statements.

Insofar, as individual consolidated balance sheet items and/or consolidated income statement items have been combined as part of the statutory regulations so as to provide better transparency. The composition of these line items is presented in the notes to the consolidated financial statements.

Effects from the first-time adoption of the German Accounting Standard Implementation Act (*Bilanzrichtlinienumsetzungsgesetz—BilRUG*) which is mandatory with effect as at January 1, 2016 primarily concern the amended extent of the recognition of sales, of other operating income, of other operating expenses as well as of the extraordinary net income/loss. The effects are explained separately within the notes.

B. SIGNIFICANT BUSINESS TRANSACTIONS

I. Repayment of Bonds

In 2016, early repayments in a total amount of EUR 75,000,000 were made for the floating rate bond issued in 2015 (Senior Secured Floating Rate Notes; nominal value EUR 150,000,000; maturity date 2022; at a floating interest rate equaling the 3-month-EURIBOR plus 4.5% p.a.). As at December 31, 2016, the floating rate bond amounts to EUR 75,000,000. In addition, the fixed rate bond also issued in financial year 2015 (Senior Secured Fixed Rate Notes) amounting to EUR 250,000,000 as well as the Additional Notes in an amount of EUR 95,000,000 at an interest rate of 5.125% p.a. continue to exist unchanged as at the balance sheet date.

II. Investments in the construction of a new Prowell plant

With effect of December 1, 2015, Progroup entered into a long-term framework and cooperation agreement for the construction of a further corrugated board plant in the southwest of Poland with one of our key customers. Since the beginning of 2016, a new corrugated board plant (PW 10) is being built in the southwest of Poland in direct vicinity to our customer at the Trzcinica/Poland location. In this context, agreements with suppliers for approximately EUR 26.6 million were entered into until mid-February 2017, of which EUR 22.1 million were already recognized as at December 31, 2016 as construction in progress for rendered services as well as for the property that has already been acquired. Completion of the production building and commencement of production operations at this location are scheduled for the first quarter of 2017. For the financing of the new plant, Prowell sp. z o.o. entered into a loan agreement for a fixed rate loan in an amount of PLN 107 million with Commerzbank Aktiengesellschaft, Frankfurt, on May 31, 2016. Of this loan, PLN 9 million have already been used as at December 31, 2016.

C. BASIS OF CONSOLIDATION

The subsidiaries which have been included in the consolidated financial statements and the unconsolidated subsidiaries are presented in section F. III. 3 and 4 of the notes to the consolidated financial statements.

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FOR FINANCIAL YEAR 2016

With effect of December 31, 2015, the assets and liabilities of the subsidiary Propower GmbH, which was acquired at that date, were consolidated for the first time (*“Mitternachtsklausel”*). Accordingly, the contributions to earnings attributable to this company are contained in the consolidated income statement for the period from January 1 to December 31, 2016 for the first time.

D. CONSOLIDATION PRINCIPLES

Acquisitions made until December 31, 2009 continue to be accounted for in accordance with section 66(3) of the Einführungsgesetz zum Handelsgesetzbuch (EGHGB—Introductory Act to the German Commercial Code), using the carrying amount method under section 301(1) no. 1 of the HGB (former version) by eliminating the cost of the equity investments against the proportionate amount that these shares represent in the equity of the subsidiaries as at January 1, 1999, January 1, 2001, January 1, 2002, January 1, 2006 and September 12, 2006.

Acquisitions made after December 31, 2009 are accounted for in accordance with section 301(1) no. 1 of the HGB (as amended) using the purchase method. With this method, the acquisition cost of the investments is eliminated against the equity reflecting the fair value of the assets, liabilities, deferrals and special items to be included in the consolidated financial statements at the acquisition date.

Two affiliated companies have not been consolidated as permitted under section 296(2) of the HGB. These companies are not material to the presentation of a true and fair view of the group's net assets, financial position and results of operation as sales and total assets of these companies amount to less than 1% of consolidated sales and consolidated total assets. Consolidation as an associate has also been dispensed with on the grounds of immateriality as permitted under section 311(2) of the HGB. Shares in these companies are recognized at amortized cost. The companies are listed by name in section F. III. 4. of the notes to the consolidated financial statements.

Receivables and liabilities between consolidated companies have been eliminated, with receivables and liabilities amounting to KEUR 814,333 having been eliminated outside profit or loss.

In financial year 2016, intercompany profits from Propapier PM1 GmbH's and Propapier PM2 GmbH's paper deliveries to affiliated companies amounting to KEUR 1,649 were eliminated through profit or loss. Intra-group sales, intra-group other operating income and interest income have been eliminated against corresponding expenses, with expenses and income amounting to KEUR 401,462 having been eliminated.

Deferred taxes are generally recognized for consolidation adjustments which are recognized through profit or loss. In 2016 and 2015, consolidation adjustments through profit or loss related exclusively to the elimination of intercompany profits. Deferred tax assets of KEUR 362 were recognized as at December 31, 2016 on eliminated intercompany profits of KEUR 1,213 (as at December 31, 2016). Eliminated intercompany profits as at December 31, 2015 amounted to KEUR 2,862. The deferred tax assets recognized for these amounted to KEUR 854 as at December 31, 2015 and were prior-period related (deferred) tax income.

E. SIGNIFICANT ACCOUNTING POLICIES

I. Disclosure of accounting policies applied

Intangible assets are measured at cost less amortization and are amortized on a straight-line basis over their standard useful lives. The intangible assets are amortized over a useful life of 3 to 10 years.

Tangible fixed assets are measured at purchase and production cost less depreciation.

Production cost comprises, if applicable, direct material costs, direct labor costs and special costs of production, appropriate indirect material costs and indirect labor costs, general and administrative costs and expenses for social amenities, for voluntary social benefits and for occupational pensions. Borrowing

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costs have also been included in production cost to the extent that they were attributable to the period of production.

The corrugator in the new plant in Plössberg, which is financed by a finance lease agreement, is presented in the tangible fixed assets as Prowell GmbH is considered to be the economic owner.

Depreciation is calculated on a straight-line basis over their standard useful lives. Tangible fixed assets and buildings are depreciated over the period of 3 to 33 years.

Straight-line depreciation rates are increased by 50% for fixed assets which are used throughout the year in three-shift operations. Prepayments made are presented in the balance sheet at their nominal amount.

Investment grants are reported separately at their nominal amount on the liabilities side under the special item “investment grants for assets” and are reversed in accordance with the useful lives of the fixed assets for which the grants were awarded.

Low-value assets costing up to EUR 150 each are fully written off in the year of acquisition. Assets which are capable of being used independently and which cost between EUR 150 and EUR 1,000 are posted to a collective item in the year of acquisition; this collective item is reversed as a charge to profit or loss over 5 years.

Financial assets are measured at cost or, in the event of an expected permanent impairment, at their lower fair value as at the balance sheet date.

Raw materials, consumables and supplies are measured at actual cost or, taking account of the principle of lower of cost or market value, at lower market values as at the reporting date. Appropriate valuation allowances amounting to KEUR 1,629 (previous year: KEUR 1,350) are applied to inventories which are obsolete, second-hand, damaged or slow-moving.

Work in process and finished goods are measured at production cost. Production cost comprises, if applicable, direct material costs, direct labor costs and special costs of production, appropriate and necessary indirect material costs, indirect labor costs, depreciation and amortization of fixed assets that is attributable to the production process and general and administrative costs and costs of occupational pensions. Borrowing costs are not included in production cost.

Receivables and other assets as well as the remaining assets are recognized at their principal amount or at their lower fair value as at the balance sheet date.

Appropriate valuation allowances are applied to receivables whose recoverability is associated with identifiable risks; irrecoverable receivables are written off in full.

To cover the general risk from trade receivables, a global valuation allowance of 1% is recognized on domestic and foreign receivables (net of value added tax) which are not subject to a specific valuation allowance.

Cash-in-hand and bank balances are measured at their nominal amounts.

Payments before the balance sheet date are recognized as **prepaid expenses** to the extent that they represent an expense for a specific period of time after this date.

Deferred taxes are recognized at their calculated amount. For further explanations, please refer to Chapter F.

Subscribed capital is recognized at calculated amount.

Provisions are recognized at the settlement amount dictated by prudent business judgement. All risks arising up to the balance sheet date and identifiable up to the date of the preparation of the financial statements have been taken into account. Provisions with a remaining term of more than one year have been discounted at the average market interest rate corresponding to their remaining maturity.

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Liabilities are carried at their settlement amount.

Payments received before the reporting date are recognized as **deferred income** to the extent that they represent income for a specific time period after this date.

II. Currency translation disclosures

Receivables, other assets, cash and cash equivalents and provisions and liabilities denominated in foreign currencies are translated during the year at the prior-month average euro rate. Measurement as at the balance sheet date is at the December 31, 2016 closing rate, with the principle of lower of cost or market value, or higher settlement amount, as appropriate, being taken into account for receivables and liabilities with a maturity of over one year in accordance with section 256a HGB.

Foreign exchange gains or losses arising from currency translation are recognized in other operating income or expenses.

Translation of foreign subsidiary annual financial statements is carried out using the modified closing rate method in accordance with section 308a HGB.

Currency translation differences from the consolidation of intercompany balances are recognized directly in currency translation adjustments in equity.

**F. DISCLOSURES AND EXPLANATIONS ON INDIVIDUAL LINE ITEMS IN THE
CONSOLIDATED BALANCE SHEET AND CONSOLIDATED INCOME STATEMENT**

The reporting date for all companies included in the consolidated financial statements is December 31.

I. Consolidated balance sheet

1. Fixed assets

In connection with the acquisition of EnBW Propower GmbH in 2015 and related revaluation of acquired fixed assets in correspondence with the capital consolidation, an operating license at acquisition cost of KEUR 23,894 has been acquired. Subsequently, the operating license is amortized since 2015 over a remaining useful life of 10 years. As at the balance sheet date, the carrying amount is KEUR 21,664 with a remaining term of 9 years.

The classification and movement in the financial year of the fixed asset accounts recognized in the consolidated financial statements are separately presented as an appendix to the notes to the financial statements in the fixed asset movement schedule.

Fixed asset production cost includes capitalized borrowing costs of KEUR 20 which were attributable to the period of production. On the balance sheet date, total borrowing costs in an amount of KEUR 20,201 were capitalized (previous year: KEUR 20,181). The capitalized borrowing costs were recognized in fixed assets in the line item "Construction in progress". Interest capitalized in previous years were capitalized in tangible fixed assets, primarily in buildings and technical equipment and machinery.

2. Receivables and other assets

Receivables and other assets no longer include receivables due in more than one year (previous year: KEUR 42).

As in the previous year, receivables from affiliated companies resulted exclusively from Group trading.

Furthermore, other assets include input tax refund claims of the entire VAT group in an amount of KEUR 176 (previous year: KEUR 396), which in accordance with tax law provisions come into existence only after the balance sheet date.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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3. Deferred taxes

<u>Balance sheet account</u>	<u>Deferred tax assets 12/31/2016</u>	<u>Deferred tax assets 12/31/2015</u>	<u>Deferred tax liabilities 12/31/2016</u>	<u>Deferred tax liabilities 12/31/2015</u>
	KEUR	KEUR	KEUR	KEUR
Tax loss carryforwards/eligible interest carried forward	9,611	11,470	0	0
Elimination of intercompany profits	362	854	0	0
Assets				
Intangible fixed assets	0	0	5,988	6,619
Tangible fixed assets/financial assets	1,808	1,167	849	931
Inventories, receivables and other assets	163	176	387	467
Liabilities				
Provisions	384	65	0	0
Liabilities	0	0	19	21
Total deferred tax (gross)	<u>12,328</u>	<u>13,732</u>	<u>7,243</u>	<u>8,038</u>
Deferred tax disclosed (net and rounded)	<u>5,085</u>	<u>5,694</u>		

To determine deferred taxes based on temporary differences between the financial statement carrying amounts for assets, liabilities, prepaid expenses and deferred charges and deferred income, and their tax bases, or based on tax loss carryforwards and interest carried forward, the amounts of the resulting tax liability and benefit were measured at the individual companies' tax rates (19% - 29.83%) at the point in time when the differences are reversed; they were not discounted. Deferred tax assets relating to loss carryforwards were taken into account if it was probable that the loss would be offset within the next five years. Today's assessment may change in accordance with the companies' income positions and tax legislation in future years and may require to be adjusted. In addition, deferred tax assets were recognized in financial year 2016 on consolidation adjustments for the elimination of intercompany profits in accordance with § 306 HGB.

Deferred tax assets on tax loss carryforwards KEUR 271 (previous year: KEUR 189) and eligible interest carried forward (German earnings stripping rule; KEUR 9,340 (previous year: KEUR 11,281)) were fully recognized because the underlying tax planning confirms that the amounts recognized could actually be utilized to reduce tax liabilities in the next 5 years.

Deferred tax assets and deferred tax liabilities are reported net.

4. Subscribed capital

The share capital of the parent company is EUR 7,588,236.00 and is divided into 7,588,236 no-par value shares with a calculated amount of subscribed capital of one euro each.

Distribution potential is based on the annual financial statements of Progroup AG. The articles of association do not contain any restrictions on distributions. There is a statutory restriction on distributions equivalent to the deferred tax assets in the annual financial statements of Progroup AG in the amount of EUR 10.3 million as well as from the measurement of the pension liabilities in the amount of EUR 0.1 million. The restriction on distribution in the Group has been calculated at EUR 5.2 million.

5. Investment grants for fixed assets

Investment grants for fixed assets are reported as a special reserve and are reversed on a pro rata basis in accordance with the useful lives of the fixed assets for which the grants were awarded.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)
FOR FINANCIAL YEAR 2016

6. Pension provisions

Pension provisions are measured in accordance with the PUC method using Prof. Dr. Klaus Heubeck's 2005 G mortality tables. In accordance with the Directive on credit agreements for consumers relating to residential immovable property and amending directives and regulations (Gesetz zur Umsetzung der Wohnimmobilienkreditrichtlinie und zur Änderung handelsrechtlicher Vorschriften) dated March 17, 2016, all pension provisions were discounted at the market interest rate of the preceding ten years published by Deutsche Bundesbank (10-year average interest rate) assuming that all liabilities have a remaining maturity of 15 years (§ 253 para. 2 sent. 2 HGB). In the previous year the average market rate of the last seven years was used for discounting.

Measurement of pension provisions is based on the following assumptions:

- Pension increase: +2% (unchanged from 2015)
- Salary increase: 0% (unchanged from 2015)
- Interest rate (10-year average): 4.03%
- Interest rate (7-year average): 3.28%

Pension obligations for which provisions were required to be recognized amounted to KEUR 1,065 as at the balance sheet date (10-year average rate). These obligations are offset against assets that serve exclusively to settle liabilities from post-employment benefit obligations and are exempt from attachment by third parties (so-called plan assets). A pledged pension liability insurance policy was classified as a plan asset. Plan assets that serve a specific purpose, have been pledged and are protected against insolvency were measured based on information from the insurer as at December 31, 2016, at the asset value (KEUR 1,030; this corresponds to the fair value). The balance remaining amount after the offset with the carrying amount of the pension provision (KEUR 35) is reported under "provisions for pensions". Effect on profit in 2016:

- Interest expense from pension provision: KEUR 39
- Interest income from plan assets: KEUR 19

The balance of interest expenses from the measurement of the pension provision (including the effect from changes in interest) and interest income from the measurement of the plan assets was reported net in the financial result. For the financial year, the balance between the measurement of the pension provision with the 7-year average interest rate and the 10-year average interest rate amounts to KEUR 124 and is subject to a distribution restriction at the level of the individual financial statements of Progroup AG.

7. Tax provisions

<u>Tax provisions</u>	<u>2016</u>	<u>2015</u>
	<u>KEUR</u>	<u>KEUR</u>
Corporate income tax	3,955	1,366
Trade tax	4,102	678
Other tax	47	292
	<u>8,104</u>	<u>2,336</u>

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8. Other provisions

This item comprises the following provisions:

<u>Provision for</u>	<u>2016</u>	<u>2015</u>
	<u>KEUR</u>	<u>KEUR</u>
Outstanding invoices	20,577	23,669
Personnel expenses (bonuses, special payments, severance payments, holiday obligations, overtime)	7,102	8,107
Bonuses still to be granted	6,754	4,805
Costs of preparing the annual financial statement, legal and consulting costs	2,186	6,142
Maintenance not undertaken	1,555	3,111
<i>Berufsgenossenschaft</i> (Employer's Liability Insurance Association), <i>Schwerbehindertenabgabe</i> (levy for not employing disabled persons)	638	867
Storage	141	141
	<u>38,953</u>	<u>46,842</u>

9. Liabilities

<u>Liabilities (in KEUR)</u>	<u>Remaining Term</u>			<u>Total</u>	<u>Thereof secured</u>
	<u>Less than 1 year</u>	<u>more than 1 year</u>	<u>thereof more than 5 years</u>		
Bonds	0	420,000	420,000	420,000	420,000
Previous year	0	495,000	495,000	495,000	495,000
Bank loans	6,926	19,349	0	26,275	26,275
Previous year	1,882	34,328	8,170	36,210	36,196
Trade payables	58,020	0	0	58,020	0
Previous year	32,784	0	0	32,784	0
Other liabilities	10,649	7,539	1,505	18,188	3,472
Previous year	12,311	0	0	12,311	4,053
Total liabilities	<u>75,595</u>	<u>446,888</u>	<u>421,505</u>	<u>522,483</u>	<u>449,747</u>
Previous year	46,977	529,328	503,170	576,305	535,249

Of the liabilities reported, a total of KEUR 449,747 are secured as follows:

- Pledging of shares in Progroup AG and company shares in its main subsidiaries included in the consolidated financial statement of Progroup AG (Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, PROLOGISTIK GmbH, Proservice GmbH, Prowell sp. z o.o., Prowell s.r.o., Prowell S.A.S., Prowell Ltd.)
- Pledging of all bank deposits of Progroup AG in Germany
- Real estate liens (i.e. land charges or mortgages) on all substantial land and buildings of Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell sp. z o.o., and Prowell s.r.o.
- Securitization of insurance claims and receivables against affiliated companies by Progroup AG, Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell sp. z o.o., Prowell s.r.o. and Prowell Ltd. and assignment by way of security of receivables against affiliated companies by JH-Holding GmbH
- Assignment of technical equipment and machineries as well as other office equipment of Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Prowell sp. z o.o., Prowell s.r.o. and Prowell Ltd.

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Besides the corporate financing through the issuance of bonds (EUR 420 million as at December 31, 2016) on April 30, 2015 and December 8, 2015, a revolving credit facility amounting to EUR 50 million was granted by a syndicate of banks (Super Senior Revolving Credit Facility). As at December 31, 2016, this revolving credit facility was not utilized by the company or its subsidiaries.

In addition to the already existing PLN Loan I of PLN 107 million, of May 31, 2016, Prowell sp. z o.o. entered into a further credit facility on a fixed rate loan in an amount of PLN 107 million with Commerzbank Aktiengesellschaft, Frankfurt (PLN Loan II). Thus, as at December 31, 2016, two PLN loan agreements exist for PLN 107 million each. Of the PLN Loan II, PLN 9 million had been used as at December 31, 2016.

The bonds, the PLN-loans and the Super Senior Revolving Credit Facility are secured pari passu as mentioned above. In an Intercreditor Agreement the creditors under the Super Senior Revolving Credit Facility were granted priority satisfaction from possible proceeds of sale.

Trade payables are also secured under the customary retention of title.

KEUR 3,052 of other liabilities was attributable to tax liabilities (December 31, 2015: KEUR 4,079) and KEUR 665 to social security liabilities (December 31, 2015: KEUR 620).

10. Deferred income

This item comprises the difference (KEUR 3,983) between the settlement value and the payment amount of the bond issued on December 8, 2015 (EUR 95 million) which will be released as adjustment to interest expenses through profit or loss over the term of the bond until May 1, 2022. Furthermore, it comprises a compensation payment in the amount of KEUR 683 for a steam supply contract which is released to income over the contractual term until January 31, 2019.

II. Consolidated income statement

The consolidated income statement has been prepared under the total cost (nature of expense) method.

The subsidiary Propower GmbH acquired in 2015 was included in the consolidated financial statements for the first time as per December 31, 2015. Accordingly, the contributions to earnings attributable to this company are included in the consolidated income statement for the period from January 1 to December 31, 2016 for the first time.

1. Sales

Sales breakdown by country of origin

		<u>2016</u>	<u>2015</u>
		<u>KEUR</u>	<u>KEUR</u>
Domestic	Corrugated board	311,380	265,840
	Containerboard	114,256	132,367
	Other	29,726	10,313
Other European countries . . .	Corrugated board	277,866	281,420
Total		<u>733,228</u>	<u>689,940</u>

The changes resulting from the first-time adoption of the BilRUG have effects on the reporting of the income from the passing through of the cost of gas, income from the sale of refuse-derived fuel as well as on various other items which under the new accounting regulations from January 1, 2016 will no longer be reported in other operating income, but in sales. For a better comparability of sales, the following overview shows a reconciliation of the sales for the period from January 1 to December 31, 2015 based on the assumption that this income from the passing through of the cost of gas, the income from the sale of

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refuse-derived fuel as well as various other items had already been reported in accordance with the provisions of the BilRUG:

January 1 to December 31, 2015

	<u>KEUR</u>
Sales	689,940
Income from the passing through of the cost of gas costs, income from the sale of refused-derived fuel as well as various other items	17,085
Previous year's sales from January 1 until December 31, 2015 shown in a comparable manner as if BilRUG provisions had been applied	707,025

Due to the initial consolidation of Propower GmbH as per December 31, 2015, the sales generated by this company from electricity generation by the combined heat and power plant in financial year 2016 of EUR 3.5 million were reported in the income statement 2016 for the first time.

2. Other operating income

This account includes income from the proportionate reversal of investment grants for fixed assets amounting to KEUR 252 (previous year: KEUR 383).

Other operating income also includes prior-period income of KEUR 11,204 (previous year: KEUR 15,216). This mainly comprises income from the reversal of provisions in the amount of KEUR 5,367 (previous year: KEUR 7,595) as well as income from prior-year energy tax refunds amounting to KEUR 1,511 (previous year: KEUR 3,561).

Furthermore, it includes currency translation gains of KEUR 1,920 (previous year: KEUR 5,521).

As a consequence of certain changes which have been introduced due to German GAAP by the new regulations resulting from the German Accounting Standard Implementation Act (*Bilanzrichtlinie-Umsetzungsgesetz*, "BilRUG"), the amounts resulting from the sales of gas and the purchase of refuse-derived fuel that have been reported in other operating income so far were reclassified from line item other operating income to the sales line item. These income amounted to KEUR 17,085 in the previous year.

Furthermore, the line item "Extraordinary income" which was reported separately in the previous year and which relates to the reversal of a provision due to the tax field audit was reclassified to other operating income.

The extraordinary income of the previous year in an amount of KEUR 2,810 contained income from the reversal of a provision made for tax risks.

For a better comparability of other operating income, the following overview shows a reconciliation of the other operating income for the period from January 1 to December 31, 2015 based on the assumption that

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these items of other operating income had already been reported in accordance with the provisions of the BilRUG:

January 1 to December 31, 2015

	<u>KEUR</u>
Other operating income	40,679
Income from the passing through of the cost of gas, income from the sale of refuse-derived fuel as well as various other items	– 17,085
Extraordinary net income/loss	2,810
Previous year's other operating income from January 1 until December 31, 2015 shown in a comparable manner as if BilRUG provisions had been applied	26,404

3. Cost of materials

The cost of materials for the financial year amounts to KEUR 371,550 (previous year: KEUR 385,454). In the previous year, the cost of materials included KEUR 41,309 from procurement costs for steam supplies by EnBW Propower GmbH to Propapier PM2 GmbH. As a consequence of the acquisition of EnBW Propower GmbH with effect as at December 31, 2015, these costs are no longer reported as cost of purchased services in 2016, but are reported according to their nature of expense in personnel expenses, amortization as well as other operating expenses due to the group membership of Propower GmbH since the financial year 2016. Only external costs for the disposal of ashes from the operation of the combined heat and power plant in an amount of KEUR 6,358 continue to be recognized in the cost of purchased services line item.

4. Personnel expenses

The personnel expenses of the financial year in a total amount of KEUR 61,423 (previous year: KEUR 56,838) include expenses for the employees of Propower GmbH in an amount of KEUR 3,215 which were included in the consolidated income statement for the first time in the financial year.

Furthermore, the personnel expenses include expenses for pensions amounting to KEUR 134 in the financial year (previous year: KEUR 239).

5. Amortization and depreciation of fixed intangible and tangible assets

The amortization and depreciation of the financial year amount to KEUR 47,372 (previous year: KEUR 29,419) and include depreciation/amortizations on fixed intangible and tangible assets acquired in connection with the purchase of Propower GmbH in an amount of KEUR 17,389.

6. Other operating expenses

This account includes prior-period expenses amounting to KEUR 2,548 (previous year: KEUR 2,020). Primarily, this includes the derecognition of a receivable as part of a settlement agreement with a supplier in an amount of KEUR 851 (previous year: KEUR 0).

In financial year 2016, the position other operating expenses includes expenses relating to the combined heat and power plant of Propower GmbH acquired as per December 31, 2015 in an amount of KEUR 18,716 for the first time.

In financial year 2016, financial burdens of an extraordinary dimension and significance in an amount of KEUR 16,046 occurred due to an unscheduled downtime of the combined heat and power plant of Propower GmbH in Eisenhüttenstadt. The total effect of this items of exceptional size or incidence comprises additional costs of KEUR 13,914 and lost sales of approximately KEUR 2,132 not recognized in the balance sheet. Lost sales result primarily from lost income for refuse-derived fuel and sale of electricity

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during the downtime. The items of exceptional size or incidence in form of additional costs mostly consist of additional maintenance costs at Propower that are reported in other operating expenses (KEUR 8,958) as well as costs for an alternative steam supply for Propapier PM2 reported in material expenses (KEUR 2,776), costs for the third-party disposal of the refuse-derived fuel (rejects) of Propapier PM1 GmbH and Propapier PM2 GmbH (KEUR 1,152) as well as increased energy costs for Propower's own demand for power and consumption of fuel oil (KEUR 1,026). Of these additional costs, KEUR 11,736 were reported in the financial year 2016 as payments in the cash flow statement.

In addition, other operating expenses include non-cash extraordinary expenses in the financial year resulting from a compensation claim against an insurer that was written off in an amount of KEUR 921.

Furthermore, the item contains rental and leasing expenses of KEUR 6,396 (previous year: KEUR 5,816) as well as expenses from currency translation of KEUR 3,405 (previous year: KEUR 4,165).

Due to the new regulations resulting from the German Accounting Standard Implementation Act (*Bilanzrichtlinie-Umsetzungsgesetz*, "**BilRUG**"), the item "extraordinary expenses" that was reported separately in the previous year was reclassified to other operating expenses.

The extraordinary expenses of the previous year (KEUR 38,341) incurred in connection with the acquisition or rather the financing of the combined heat and power plant in an amount of KEUR 6,852 as well as with the expenses relating to the refinancing in an amount of KEUR 31,278, of which KEUR 4,109 were cash-effective in financial year 2016.

January 1 to December 31, 2015

	KEUR
Other operating expenses	138,459
Extraordinary expenses	38,341
Previous year's other operating expenses from January 1 until December 31, 2015 shown in a comparable manner as if BilRUG provisions had been applied	176,800

7. Other interest and similar income

Interest income from the discounting of provisions amounted to KEUR 33 in the financial year 2016 (previous year: KEUR 0).

8. Interest and similar expenses

Overall, the amount of interest paid in financial year 2016 was KEUR 26,473 and the amount of interest received was KEUR 103.

In addition, the item includes expenses similar to interest from the repayment of the bonds in an amount of KEUR 750.

Interest expense from discount unwinding of discounted provisions amounted to KEUR 12 in 2016 (previous year: KEUR 65).

9. Extraordinary net income/loss—reclassification due to BilRUG

Due to the new regulations resulting from the German Accounting Standard Implementation Act (*Bilanzrichtlinie-Umsetzungsgesetz*, "**BilRUG**"), the line item "Extraordinary net income/loss" that was reported separately in the previous year was reclassified to the item "other operating expenses" and the item "other operating income".

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10. Taxes on income

This account mainly includes trade tax and corporate income tax for the current financial year in the amount of KEUR 18,742 (previous year: KEUR 11,931) and refunds payments of trade tax and corporate income tax for previous years in the amount of KEUR 456 (previous year: KEUR 187). It also includes expenses arising from the adjustment of deferred tax assets in the amount of KEUR 593 (previous year: KEUR 68). In the financial year 2016, the total amount of tax paid was KEUR 10,631.

III. Other disclosures

1. Contingent liabilities, off-balance sheet transactions and other financial commitments

In context of the refinancing carried out in 2015, a revolving credit facility (Super Senior Revolving Credit Facility) amounting to EUR 50 million was granted by a syndicate of banks in addition to the issuance of the bonds (amount as at December 31, 2016: EUR 420 million). As at December 31, 2016, the revolving credit facility was not utilized by the company or any of its subsidiaries.

The bonds outstanding on the balance sheet date and the Super Senior Revolving Credit Facility, which can also be utilized by subsidiaries of Progroup AG, are secured by pledging all shares in Progroup AG and the company shares in its main subsidiaries, by pledging the bank deposits of the holding company, by assigning tangible fixed assets of the subsidiaries, by granting real estate liens and assignments of certain receivables. Furthermore, certain covenants apply with regard to the loans and/or bonds.

The bonds and the Super Senior Revolving Credit Facility as well as two loans granted to Prowell sp. z o.o. by Commerzbank Aktiengesellschaft in the amount of PLN 116 million (PLN I and PLN II loan) are secured pari passu as mentioned above. However, in an Intercreditor Agreement the creditors were granted a priority satisfaction from any proceeds from realization.

Furthermore, the parent company has provided letters of comfort and guarantees for a total amount of KEUR 18,265 to various suppliers of subsidiaries. Furthermore, the parent company has assumed joint and several co-liability vis-à-vis CommerzFactoring GmbH for obligations of Prowell GmbH from a forfaiting framework agreement.

The risk of enforcement should be regarded as low as none of the affiliates have a strained liquidity position.

The companies lease forklifts and trucks under operating lease agreements so that these assets are not recognized in the companies' financial statements. As at December 31, 2016, the remaining obligations from the lease agreements were KEUR 8,342. In addition, there were rental and lease agreements for movable assets as well as for the rental of factory buildings and areas as at the balance sheet date. As at December 31, 2016, the remaining obligations from these rental/lease agreements for subsequent years were KEUR 16,551 (nominal amount). The advantage of these agreements is that a lower amount of capital is tied up in the beginning than with a purchase and there is an absence of realization risk. Risks could arise from the lease agreement periods if the assets can no longer be fully utilized, although there are currently no indications of this.

As at the balance sheet date, there were steam supply contracts in place for the reliable supply of energy at fixed prices which did not lead, however, to a recognition of a provision for contingent losses. These agreements have terms of up to 9 years (December 31, 2025).

Due to specific contractual agreements entered into as at the balance sheet date, total obligations for the following year 2017 amount to KEUR 11,908 (December 31, 2015: KEUR 11,587).

As at December 31, 2016, there was a remaining obligation from a consignment agreement amounting to KEUR 39 (December 31, 2015: KEUR 29).

In addition, as at the balance sheet date there were contractual purchase commitments for waste paper and corrugated board base paper supplies; respective commitments for the following year are KEUR 46,485

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(December 31, 2015: KEUR 41,990). Furthermore, there are outstanding purchase commitments for other services in the amount of KEUR 19,496 (December 31, 2015: KEUR 21,706).

2. Employees

The average number of employees during the financial year changed as follows:

	2016	2015
Salaried employees	230	220
Wage earners	748	690
Total	<u>978</u>	<u>910</u>

The disclosure only includes employees of consolidated companies.

3. List of companies included in the consolidated financial statements

Consolidated companies

	Percentage shareholding as at 12/31/2016
	%
Prowell GmbH, Offenbach a. d. Queich, Germany	100.00
Prowell Verwaltungs GmbH, Offenbach a. d. Queich, Germany	100.00
Propapier PM1 GmbH, Burg, Germany	100.00
Prowell S. A. S., Douvrin, France*	100.00
Propower GmbH, Eisenhüttenstadt, Germany	100.00
(formerly EnBW Propower GmbH, Eisenhüttenstadt, Germany)	
Prologistik GmbH, Burg, Germany	100.00
Proservice GmbH, Offenbach a. d. Queich, Germany	100.00
Prowell s.r.o., Rokycany, Czech Republic*	100.00
Prowell Sp. z o.o., Stryków, Poland*	100.00
Propapier PM2 GmbH, Eisenhüttenstadt, Germany*	100.00
Prowell Ltd., Ellesmere Port, England*	100.00

* indirect equity interest

4. Unconsolidated affiliated companies

	Percentage shareholding as at 12/31/2016	Equity as at 12/31/2016	Net income/loss for 2016
	%	KEUR	KEUR
Profund GmbH, Offenbach a. d. Queich, Germany	100.00	12	- 2
Projekt 3 CZ Beteiligungs GmbH, Offenbach a. d. Queich, Germany*	99.00	24	0

* indirect equity interest

5. Holding company

The holding company of the largest consolidation group is JH-Holding GmbH, Neustadt a. d. Weinstrasse, Germany. The consolidated financial statements of JH-Holding GmbH are submitted to the operator of the Bundesanzeiger (Federal Gazette) for publication.

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The subsidiaries listed in no. 3 are included in the consolidated financial statements to be prepared by Progroup AG in the smallest consolidation group in accordance with the provisions of the HGB for full consolidation.

6. Subsidiaries

Propapier PM1 GmbH, Burg, Germany, Propapier PM2 GmbH, Eisenhüttenstadt, Germany, Propower GmbH, Eisenhüttenstadt, Germany and Prowell GmbH, Offenbach a. d. Queich, Germany, have made use of the exemption pursuant to section 264(3) HGB.

7. Emission allowances

At the balance sheet date, the Group held 497,472 CO₂ emission allowances (allocation for 2016: 94,755 CO₂ emission allowances). These were acquired free of charge as part of a public allocation. The allowances are recognized at their reminder value. The quoted market price as at the balance sheet date was approximately EUR 7 per certificate (December 31, 2015: approximately EUR 8 per certificate). The fair value of the allowances recognized at a carrying amount of KEUR 0 therefore amounted to EUR 3.5 million (December 31, 2015: EUR 3.2 million).

8. Cash flow statement

The cash flow statement has been prepared in accordance with the provisions of DRS 21 (German Accounting Standard—GAS 21) using the indirect method. Cash funds have been exclusively defined as cash and cash equivalents.

9. Proposal for the appropriation of net income

The Management Board proposes to the general meeting of shareholders to distribute to the shareholders from the net retained profits of Progroup AG reported in the annual financial statements of Progroup AG for the 2016 financial year in an amount of EUR 158,410,638.55 a dividend of EUR 0.77 (gross) per share entitled to dividends, i.e. a total amount of EUR 5,842,941.72, and to carry the remaining net retained profit in the amount of EUR 152,567,696.83 forward to new account.

10. Management Board

The following were members at the Management Board in the financial year:

Jürgen Heindl, Dipl.-Wirt.-Ing., Neustadt a. d. Weinstraße, Germany (Chairman of the Management Board)

Frank Gumbinger, Dipl.-Kfm., Baden-Baden, Germany (CFO)—until September 30, 2016

Dr. Volker Metz, Dipl.-Kfm., Hochdorf-Assenheim, Germany (CFO)—since November 1, 2016

Philipp Kosloh, Dipl.-Ing., Speyer am Rhein, Germany (Deputy Management Board Member)—since November 1, 2016

11. Supervisory Board

The Supervisory Board was composed as follows during the financial year:

Rainer Dietmann, Lawyer, Partner of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, Mannheim, Germany (Chairman)

Prof. Dr. Rudolf Wimmer, Vice President of Witten/Herdecke University, Vienna, Austria (Vice Chairman)

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Prof. Dr. Hermut Kormann, Honorary Professor at Leipzig University and at Zeppelin University Friedrichshafen, Germany

12. Total remuneration

The Management Board's total remuneration in the financial year for exercising its responsibilities in the holding company and the subsidiaries was KEUR 3,723 (2015: KEUR 3,689).

Supervisory Board remuneration in 2016 amounted to KEUR 68 (2015: KEUR 68).

13. Auditor's fee

The group auditor's fees recognized as an expense in the financial year amounted to KEUR 208 (2015: KEUR 139) for audit services and KEUR 32 (2015: KEUR 1,483) for other assurance services.

IV. Report on subsequent events

No operative or structural changes or business matters have occurred after the balance sheet date that have a material effect on the net assets, financial position and results of operation of Progroup AG.

Offenbach a. d. Queich, Germany, February 15, 2017

Management Board

Jürgen Heindl

Dr. Volker Metz

Philipp Kosloh

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**Consolidated Fixed Asset Movement
Schedule for 2016**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED FIXED ASSET-MOVEMENT SCHEDULE for 2016

	Acquisition or manufacturing cost						Amortization/depreciation					Net book values	
	01/01/2016	Exchange differences	Additions	Disposals	Retransfers	12/31/2016	01/01/2016	Exchange differences	Additions	Disposals	12/31/2016	12/31/2016	12/31/2015
	€	€	€	€	€	€	€	€	€	€	€	€	€
A. Fixed assets													
I. Intangible assets													
Purchased concessions, industrial property and similar rights and assets	30,660,257.74	– 14,765.61	472,137.11	12,230.10	0.00	31,105,399.14	5,923,677.03	– 14,266.23	2,855,730.52	12,230.10	8,752,911.22	22,352,487.92	24,736,580.71
	30,660,257.74	– 14,765.61	472,137.11	12,230.10	0.00	31,105,399.14	5,923,677.03	– 14,266.23	2,855,730.52	12,230.10	8,752,911.22	22,352,487.92	24,736,580.71
II. Tangible assets													
1. Land and buildings*	276,421,892.83	– 1,385,339.65	1,031,898.93	10,332.30	146,548.45	276,204,668.26	92,732,716.05	– 254,395.04	8,723,827.61	2,376.67	101,199,771.95	175,004,896.31	183,689,176.78
2. Technical equipment and machinery	829,240,385.57	– 2,468,710.82	6,828,659.75	1,026,085.37	1,304,005.90	833,878,255.03	391,813,973.96	– 1,733,861.74	34,271,404.70	440,407.73	423,911,109.19	409,967,145.84	437,426,411.61
3. Other equipment, factory and office equipment	18,743,298.65	– 113,548.19	1,418,415.69	967,321.93	– 141.24	19,080,702.98	12,326,343.82	– 81,325.54	1,521,151.22	939,942.01	12,826,227.49	6,254,475.49	6,416,954.83
4. Prepayments and construction in process	5,179,074.67	– 266,280.84	22,810,044.36	33,436.41	– 1,450,413.11	26,238,988.67	0.00	0.00	0.00	0.00	0.00	26,238,988.67	5,179,074.67
	1,129,584,651.72	– 4,233,879.50	32,089,018.73	2,037,176.01	0.00	1,155,402,614.94	496,873,033.83	– 2,069,582.32	44,516,383.53	1,382,726.41	537,937,108.63	617,465,506.31	632,711,617.89
III. Financial assets													
Shares in affiliated companies . . .	37,375.00	0.00	0.00	0.00	0.00	37,375.00	0.00				0.00	37,375.00	37,375.00
	37,375.00	0.00	0.00	0.00	0.00	37,375.00	0.00	0.00	0.00	0.00	0.00	37,375.00	37,375.00
	1,160,282,284.46	– 4,248,645.11	32,561,155.84	2,049,406.11	0.00	1,186,545,389.08	502,796,710.86	– 2,083,848.55	47,372,114.05	1,394,956.51	546,690,019.85	639,855,369.23	657,485,573.60

* including buildings on leasehold land

**Consolidated Cash Flow Statement
for the Period
from January 1 to December 31, 2016**

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED CASH FLOW STATEMENT
FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2016

	2016	2015
	K€	K€
1. Cash flows from operating activities		
Consolidated net income/loss for the period	61,404	54,405
Amortization and depreciation of fixed assets	47,372	29,419
Increase (+)/decrease (–) in provisions	– 6,709	– 8,739
Other non-cash expenses (+)/income (–)	– 496	1,298
Increase (–)/decrease (+) in inventories, trade receivables and other assets*	3,049	– 2,357
Increase (+)/decrease (–) in trade payables and other liabilities*	9,983	7,789
Gain(–)/loss(+) on disposal of fixed assets	510	0
Interest expenses (+)/income (–)	25,190	21,732
Expenditure (+)/income (–) of exceptional size or incidence	14,835	35,531
Income tax expenses (+)/income (–)	19,793	11,775
Cash payments (–) relating to expenditure of exceptional size or incidence	– 11,736	0
Income taxes paid (–)	– 10,631	– 17,328
Cash flows from operating activities	152,564	133,525
2. Cash flows from investing activities		
Proceeds (+) from disposal of intangible and tangible fixed assets	144	67
Payments (–) to acquire intangible fixed assets	– 472	– 659
Payments (–) to acquire tangible fixed assets	– 22,976	– 26,769
Payments (–) to acquire entities included in the basis of consolidation	0	– 179,547
Interest received (+)	103	130
Cash flows from investing activities	– 23,201	– 206,778
3. Cash flows from financing activities		
Proceeds (+) from the issuance of bonds and borrowings	2,081	535,529
Cash repayments (–) of bonds and borrowings	– 75,847	– 394,420
Proceeds (+) from grants received	313	1,300
Cash payments (–) relating to expenditure of exceptional size or incidence	– 4,109	– 30,705
Interest paid (–)	– 26,473	– 17,577
Dividends paid to shareholders of the parent entity (–)	– 6,222	– 19,191
Cash flows from financing activities	– 110,257	74,936
4. Cash funds at end of period		
Net change in cash funds	19,106	1,683
Effect on cash funds of exchange rate movements	– 2,498	321
Cash funds at beginning of period	20,762	18,758
Cash funds at end of period	37,370	20,762
5. Composition of cash funds		
Cash and cash equivalents	37,370	20,762
Cash funds at end of period	37,370	20,762

* Not attributable to investing or financing activities

Consolidated Statement of Changes in Equity for 2016

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR 2016

	Subscribed capital	Capital reserve	Revenue reserves	Consolidated net retained profits ⁽¹⁾	Currency translation adjustment	Group equity
	K€	K€	K€	K€	K€	K€
January 1, 2015	7,588	75,414	1,408	88,069	1,198	173,677
Distribution of profit	0	0	0	– 19,190	0	– 19,190
Consolidated net profit for the year . .	0	0	0	54,405	0	54,405
Other changes	0	0	0	0	– 288	– 288
December 31, 2015	7,588	75,414	1,408	123,284	910	208,604
January 1, 2016	7,588	75,414	1,408	123,284	910	208,604
Distribution of profit	0	0	0	– 6,222	0	– 6,222
Consolidated net profit for the year . .	0	0	0	61,404	0	61,404
Other changes	0	0	0	0	– 4,177	– 4,177
December 31, 2016	7,588	75,414	1,408	178,466	– 3,267	259,609

- (1) The consolidated net retained profits in the amount of the deferred tax assets recognized in Progroup AG's annual financial statements as well as from the measurement of pension obligations are subject to a distribution restriction (2016: EUR 10.3 million; 2015: €11.2 million). As at 31 December 2016, €148.0 million (31 December 2015: €106.3 million) are available for distribution to the shareholders from the annual financial statements of Progroup AG.

The following auditor's report (*Bestätigungsvermerk*) has been issued in accordance with Section 322 of the German Commercial Code (*Handelsgesetzbuch*) on the consolidated financial statements and group management report (*Konzernlagebericht*) of Progroup AG as of and for the fiscal year ended December 31, 2016. The group management report is neither included nor incorporated by reference in this offering memorandum.

Auditor's Report

We have audited the consolidated financial statements prepared by Progroup AG, Offenbach a. d. Queich, Germany, comprising the balance sheet, the income statement, notes, cash flow and the statement of changes in equity to the consolidated financial statements, together with the group management report for the business year from January 1, 2016 to December 31, 2016. The preparation of the consolidated financial statements and the group management report in accordance with German commercial is the responsibility of the parent Company's Board of Managing Directors. Our responsibility is to express an opinion on the consolidated financial statements and the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with § (Article) 317 HGB ("*Handelsgesetzbuch*": "**German Commercial Code**") and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with (German) principles of proper accounting and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of the companies included in consolidation, the determination of the companies to be included in consolidation, the accounting and consolidation principles used and significant estimates made by the Company's Board of Managing Directors, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion based on the findings of our audit, the consolidated financial statements comply with the legal requirements and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with (German) principles of proper accounting. The group management report is consistent with the consolidated financial statements and complies with the legal requirements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Mannheim, February 15, 2017

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