

PIONEERING THE FUTURE

ANNUAL REPORT 2021



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REPORT PROFILE

FORWARD-LOOKING STATEMENTS

This Report may contain forward-looking statements based on current assumptions and forecasts made by the management of Covestro AG, Leverkusen (Germany). Various known and unknown risks, uncertainties, and other factors could lead to material differences between the actual results, financial situation, development, or performance of the Group and the estimates given here. The various factors include those discussed in Covestro's public reports, which are available at www.covestro.com. The company assumes no liability whatsoever to update such forward-looking statements or to conform them to future events or developments.

COMBINED MANAGEMENT REPORT OF THE COVESTRO GROUP AND COVESTRO AG

The combined management report pertains to both the Covestro Group and Covestro AG. This report covers the period from January 1 to December 31, 2021. The presentation of the business performance as well as the position of and the forecast for key management indicators pertain to the Covestro Group, except where otherwise indicated. Information that applies to Covestro AG only is identified accordingly. In the Report on Economic Position, the information disclosed pursuant to the German Commercial Code (HGB) with regard to Covestro AG is provided in a separate section. In addition, the nonfinancial statement pursuant to Sections 315b and 315c in conjunction with Sections 289c through 289e of the HGB is integrated into the Group Management Report. This includes the statements in accordance with the European Union's Taxonomy Regulation (2020/852). A nonfinancial statement in accordance with Sections 289c through 289e of the HGB does not have to be provided at this time for Covestro AG.

Combined Management Report Reference Key

-  Reference to content in the Group Management Report or Consolidated Financial Statements
-  Reference to content in the supplementary sustainability information. The supplementary sustainability information that is not part of the statutory audit of the consolidated financial statements was subjected to a separate review with limited assurance pursuant to the International Standard on Assurance Engagements (ISAE) 3000 by KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Germany), and is identified as follows in this document:

[Supplementary information >](#)

[< Supplementary information](#)
-  Refers to content not contained in the Group Management Report, supplementary sustainability information, and Notes to the Consolidated Financial Statements. KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Germany), did not substantively audit or review the information referenced.

NONFINANCIAL REPORTING

Covestro reports comprehensively and transparently about topics important from the company's perspective and for our stakeholders. We measure our sustainability performance using financial indicators as well as key nonfinancial indicators published in the Group Management Report. Our objective here is to highlight how closely linked environmental and societal factors are with responsible corporate governance and the long-term success of our business. The Group Management Report and the supplementary sustainability information together comprise our annual sustainability reporting.

For all reportable aspects, the nonfinancial statement includes the policies we pursue in addressing environmental matters, employee matters, and social matters as well as respect for human rights and anti-corruption and bribery matters, the due diligence processes followed, as well as the outcomes of these strategies. Nonfinancial performance indicators are reported only when these are important to the Covestro Group.

As an integral part of the Group Management Report, the nonfinancial statement was audited with reasonable assurance by our auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Germany). The supplementary sustainability information specifically identified as such additionally contributes to the transparency of our reporting, which meets the requirements of the "Core" option of the Global Reporting Initiative's (GRI) Sustainability Reporting Standards (SRS). The supplementary sustainability information that is not part of our statutory annual reporting was subjected to a separate review with limited assurance pursuant to the ISAE 3000 by KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Germany).

ENVIRONMENTAL PERFORMANCE INDICATORS

Environmental protection performance indicators are reported for all fully consolidated companies. Since these figures are calculated only at the end of the year, they include the group of companies consolidated as it stands at year-end. Moreover, we include data from all environmentally relevant Covestro sites, i.e., all production sites and relevant administrative sites. This data is used in addition to the environmental reporting contained in this report to communicate with various stakeholders, e.g., associations, the press, and government agencies, as well as to continually improve our environmental performance. In order to comply with publication deadlines, the sites estimate the environmental data for the final weeks of the current fiscal year on the basis of established estimation methodologies that ensure accurate reporting of data as close as possible to the actual figures for the year. If, however, in the course of the following year, we become aware of material deviations based on internally defined thresholds, the figures in question are corrected retroactively. This was not required in fiscal 2021 for the preceding 2020 fiscal year.

Reporting on Scope 1, Scope 2, and Scope 3 greenhouse gas emissions is based on the Greenhouse Gas Protocol and includes all fully consolidated companies. Measures taken to offset emissions are not currently tracked by Covestro and are therefore not part of this reporting. The global warming potential (GWP) factors correspond to the Fifth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC).

ALTERNATIVE PERFORMANCE MEASURES

Throughout its financial reporting, Covestro uses alternative performance measures (APMs) to assess the business performance of the Group. These are not defined in the International Financial Reporting Standards (IFRSs). These non-IFRS indicators should be considered a supplement to, not a replacement for, the financial performance measures determined in accordance with IFRSs. The alternative performance measures of relevance to the Covestro Group include earnings before interest, taxes, depreciation, and amortization (EBITDA), return on capital employed (ROCE), free operating cash flow (FOCF), and net financial debt. The calculation methods for the APMs may vary from those of other companies, thus limiting the extent of the overall comparability. These alternative performance measures should not be viewed in isolation or employed as an alternative to the financial indicators determined in accordance with IFRSs and presented in the consolidated financial statements for purposes of assessing Covestro's net assets, financial position, and results of operations.

Explanations of the definition and calculation of these alternative performance measures can be found in the "Management" section.

INCLUSIVE LANGUAGE

Diversity, equity, and inclusion are important to Covestro. To ensure better readability, we therefore strive to use gender-neutral language and avoid gender-specific terms in this Report. All terms should be taken to apply equally to all genders.

ROUNDING AND PERCENTAGE DEVIATIONS

As the indicators in this Report are stated in accordance with commercial rounding principles, totals may not always be exact, and percentages may be approximated.

Percentage deviations are only calculated and reported if they are no more than 100%. Larger deviations are reported as >100%, >200%, etc. If a deviation changes from positive to negative or vice versa, or if it is greater than 1,000%, this is shown by a period.

PUBLICATION

The publication of this Annual Report does not comply with the legally required uniform electronic reporting format pursuant to Section 328, Paragraph 1, Sentence 4 HGB. A report in this format has been submitted to the operator of the electronic Federal Gazette in Germany and is accessible via the website www.unternehmensregister.de.

This Annual Report was published on March 1, 2022. It is available in German and English. The German version is binding.

KEY DATA

COVESTRO GROUP

	2020	2021	Change
	€ million	€ million	%
Core volume growth^{1,2}	-5.6%	+10.0%	
Sales	10,706	15,903	+48.5
Change in sales			
Volume	-5.1%	+6.5%	
Price	-5.7%	+34.7%	
Currency	-1.6%	-0.8%	
Portfolio	-1.3%	+8.1%	
Sales by region			
EMLA ³	4,600	6,876	+49.5
NA ⁴	2,554	3,553	+39.1
APAC ⁵	3,552	5,474	+54.1
EBITDA⁶	1,472	3,085	>100
Changes in EBITDA			
Volume	-24.9%	+23.8%	
Price	-44.2%	+252.0%	
Raw material price	+52.4%	-125.3%	
Currency	-1.6%	-0.1%	
Other ⁷	+10.1%	-40.9%	
EBIT ⁸	696	2,262	>200
Financial result	(91)	(77)	-15.4
Net income ⁹	459	1,616	>200
Earnings per share (€) ¹⁰	2.48	8.37	>200
Cash flows from operating activities ¹¹	1,234	2,193	+77.7
Cash outflows for additions to property, plant, equipment and intangible assets	704	764	+8.5
Free operating cash flow¹²	530	1,429	>100
Net financial debt ^{13,14}	356	1,405	>200
ROCE¹⁵	+7.0%	+19.5%	
Employees (in FTE) ^{14,16}	16,501	17,909	+8.5

¹ Core volume growth refers to the core products in the Performance Materials and Solutions & Specialties segments. It is calculated as the percentage change in externally sold volumes compared with the prior year. Covestro also takes advantage of business opportunities outside its core business, for example the sale of precursors and by-products such as hydrochloric acid, sodium hydroxide solution, and styrene. These transactions are not included in core volume growth.

² Calculated on the basis of the definition of the core business effective March 31, 2021.

³ EMLA: Europe, Middle East, Latin America (excluding Mexico), Africa region.

⁴ NA: North America region (Canada, Mexico, United States).

⁵ APAC: Asia and Pacific region.

⁶ EBITDA: EBIT plus depreciation, amortization, and impairment losses; less impairment loss reversals on intangible assets and property, plant and equipment.

⁷ Other changes in EBITDA such as changes in provisions for variable compensation.

⁸ EBIT: income after income taxes plus financial result and income taxes.

⁹ Net income: income after income taxes attributable to the shareholders of Covestro AG.

¹⁰ Earnings per share: according to IAS 33 (Earnings per Share), net income divided by the weighted average number of outstanding no-par value voting shares of Covestro AG. The calculation for fiscal 2021 was based on 193,165,396 no-par shares (previous year: 184,912,207 no-par shares).

¹¹ Cash flows from operating activities according to IAS 7 (Statement of Cash Flows).

¹² Free operating cash flow: cash flows from operating activities less cash outflows for additions to property, plant, equipment and intangible assets.

¹³ Excluding provisions for pensions and other post-employment benefits.

¹⁴ As of December 31 in each case.

¹⁵ ROCE: The return on capital employed is calculated as the ratio of EBIT after taxes to capital employed. The indicator is calculated as a ratio of the adjusted operating result (EBIT) after imputed income taxes to capital employed. Capital employed is the capital used by the company. It is the sum of noncurrent and current assets less noninterest-bearing liabilities such as trade accounts payable.

¹⁶ Employees calculated as full-time equivalents (FTEs).

FOREWORD



How we pioneer with ...

Our Vision

Dr. Markus Steilemann,
Chief Executive Officer

Our Solutions

Sucheta Govil,
Chief Commercial Officer

Our Technology

Dr. Klaus Schäfer,
Chief Technology Officer

Our Business

Dr. Thomas Toepfer,
Chief Financial Officer

Markus Steilemann, Sucheta Govil, Klaus Schäfer and Thomas Toepfer put the past year in context and explain how Covestro is pioneering the future.



EXPLORE
VIDEOS

HOW WE PIONEER WITH OUR VISION

»To become fully circular is a vision with its finger on the pulse of the times. Our goal is to preserve the environment, advance society and generate sustainable growth.«

Dr. Markus Steilemann,
Chief Executive Officer



Covestro will become fully circular and wants to contribute to making the circular economy a global guiding principle. We see this as a key to solving global challenges such as climate change, dwindling resources and environmental pollution, which are massively affecting our planet.

In realizing our vision to become fully circular, we made further progress and set our course in 2021. For example, with a world premiere: the first climate-neutral¹ polycarbonate plastic, produced in a duet of sustainable raw materials and renewable energy. We are also innovative when it comes to recycling. After all, waste is one of the resources of the future, along with biomass and CO₂. In this way, we are replacing oil and gas and recycling carbon instead of emitting it. A milestone on this path is the pilot plant in Leverkusen (Germany), which we opened in 2021 and where we are testing a new process for chemically recycling foam. The goal is a second life for discarded mattresses, which until now have ended up in landfills or have been incinerated.

Accordingly, the circular economy is a cornerstone of Covestro's strategy. We want to gradually generate all our products from alternative raw materials and switch production completely to renewable energy. At the same time, we are increasingly aligning our product range to the growing need for sustainable solutions. In this way, as a further pillar of our strategy, we aim to generate sustainable growth. The acquisition of the Resins & Functional Materials business (RFM) from DSM, completed last year, will help us to achieve this. The comprehensive realignment of our Group structure in 2021 will also ensure a successful future. This will enable us to better bundle competencies, for example, for accelerated digitalization. I am certain that, in the new setup, we will be even more competitive, customer-focused and efficient – equipped for all challenges and open for the many business opportunities.

¹ Climate-neutral is the result of an assessment of a partial product life cycle from resource extraction (cradle) to the factory gate, also referred to as cradle to gate assessment. The methodology of our Life Cycle Assessment is based on the ISO 14040 standard, critically reviewed by TÜV Rheinland on the basis of a plausibility check. The calculation considers biogenic carbon sequestration based on preliminary supply chain data and replacing electricity grid mix with renewable electricity used for the manufacturing process. No offsetting measures have been applied.

HOW WE PIONEER WITH OUR SOLUTIONS

Focusing on our customers and their needs in a fast-changing business environment is one of the key elements in becoming a pioneer of our industry. We believe that we can only be successful in the future if we continue to be the best possible partner for our customers.

In 2021, we took decisive steps to reorganize our Group structure to become the best partner for our customers. With our new segments Performance Materials and Solutions & Specialties, we have aligned our organizational structure to be more consistent with our business success factors and customers' needs. The demand for innovative high-performance materials grows with our customers, because plastics are the accelerator towards a climate-neutral world. That is why we have introduced new applications and brands based on alternative raw materials such as CO₂.

But we did not stop there. We also implemented a new set-up for our corporate functions, bundling strategic "build activities" to support the long-term development of Covestro. Our corporate functions also play a critical role when it comes to logistics and supply chain management. Throughout the past year, global supply chains and logistics have been put under severe strain – not least by the coronavirus pandemic and the global raw material shortage. It is great to see that we were able to deal with the situation without ever compromising the health and safety of our employees. Thanks to our deep integration and regional production strategy, we acted swiftly and have served our customers reliably at all times, once again proving the resilience of our business model.

By reorganizing our competencies, we are driving the Group-wide development of transformative solutions. In this way, we pay tribute to our core principle of sustainability and our vision of the circular economy and secure our long-term success.



»We continue to be the best possible partner for our customers. To achieve this, we align ourselves even closer to their needs, unlocking the full potential of our organization.«

**Sucheta Govil,
Chief Commercial Officer**

HOW WE PIONEER WITH OUR TECHNOLOGY

At Covestro, we want to accelerate the transition towards a fossil-free economy and ultimately become fully circular. We understand that we can only reach our goals if we constantly live up to our ambition and continue our research into future technologies and new ways to close the loop.

In order to leave behind fossil fuels, we are continuously advancing the use of alternative raw materials to manufacture our products. In 2021, we were again able to take important steps regarding our sustainable product portfolio: We have already successfully commercialized around 45 products based on alternative raw materials and are currently working on almost 90 research and development (R & D) projects aimed at finding more ways to use CO₂, waste or biomass as raw material for our products.

We are, however, not driving the sustainability of only our product portfolio; we are also working on the carbon footprint of our entire company. To this end, we have set ourselves the long-term goal of covering our entire energy demand from renewable sources, and we will continue to expand our green energy portfolio going forward. At the same time, we have obtained ISCC PLUS certification for a number of production sites around the world. This International Sustainability and Carbon Certification provides transparency to our customers and helps track the use of alternative raw materials throughout the value chain.

And we are continuing to forge ahead along this path. In 2021, we announced that we would resume the investment project for the construction of a world-scale MDI plant, which will leverage our particularly energy-efficient AdiP technology successfully piloted at our Brunsbüttel (Germany) site. All these innovations are an investment in a sustainable future. We are sticking to our goal and building on the successes we have already achieved on the way to a circular economy.

»New technologies will be the key to becoming fully circular. We are committed to our research and will keep investing in the expansion of our sustainable product portfolio.«

Dr. Klaus Schäfer,
Chief Technology Officer



HOW WE PIONEER WITH OUR BUSINESS

»The year 2021 was a strong one. We remain confident that demand for sustainable solutions will increase. With our effective setup, we are ideally positioned to benefit from this development.«

Dr. Thomas Toepfer,
Chief Financial Officer



Covestro had a very strong year. Despite all the macroeconomic challenges of the past months, we not only met but significantly exceeded the earnings targets we set ourselves at the beginning of 2021. We are confident that we will continue our successful journey in 2022.

The last year was marked by ongoing economic recovery following the onset of the global coronavirus pandemic. Demand for our products continued to pick up strongly in many key industries and we carried the good economic momentum through the entire year.

As a result, we delivered a strong performance for the full year 2021. Our revenues were around EUR 15.9 billion, the highest revenues level in our company's history. At around EUR 3.1 billion, our EBITDA more than doubled, leading to a net income of around EUR 1.6 billion. Covestro continues its growth trajectory, and this would not have been possible without our employees. They have gone the extra mile every day in production, in the laboratories and in administrative functions. For me, this commitment and solidarity are the clearest proof that our "We Are 1" culture is truly something special.

Looking into the year 2022, we remain confident. The constantly growing demand for our products shows that we are very well positioned to benefit from the global trend towards a more resource-efficient and more sustainable economy. The need for more energy-efficient construction and the continued strong rise in electromobility are just two examples of developments towards a more sustainable future. With our vision, we have set ourselves ambitious targets and there is still a long way to go. But, in the past year, we created room for investments and strengthened our ability to grow with innovation and digitalization. I look forward to continuing to drive our transformation as a team and pushing ahead with our new Group structure.

PIONEERING THE FUTURE



TAKING ACTION



SHOWING FORESIGHT



SETTING STANDARDS

A brighter, circular world needs pioneers. And Covestro – with its vision of becoming fully circular – is a trailblazer. In the past year, we have optimally positioned ourselves to fully leverage our potential. And with our circular solutions, the move away from fossil raw materials and collaborations across boundaries, we are **shaping a sustainable future**.

SHOWING FORESIGHT



In an increasingly demanding world, the chemical industry plays a crucial role. It offers sustainable solutions to the challenges of our time. And Covestro is optimally positioned to actively shape the future: with its vision of **becoming fully circular**, a **new strategy and a strong foundation** of safety and culture.

BECOMING FULLY CIRCULAR

Global CO₂ emissions continue to rise,¹ accompanied by floods, forest fires and droughts. At the same time, the earth's natural assets are being exhausted and its environment polluted. Humanity uses about 60 percent more of the planet's resources than it can regenerate every year,² and a third of the more than two billion tons of waste is not managed properly.³ It is about time for a change. The good news is that an increasing number of nations want to become climate-neutral; many ideas and technological solutions are on the table.

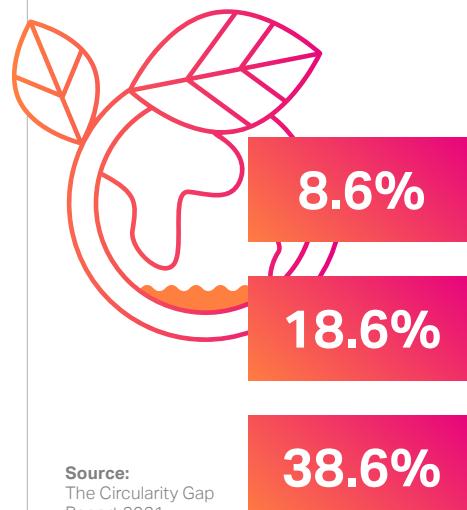
CIRCULAR ECONOMY IS KEY

"But we need more: a great idea that unites politics, society and the economy," says Covestro CEO Dr. Markus Steilemann. "This is what the circular economy offers – as a key to climate neutrality, resource conservation and environmental protection." Covestro wants to help make circularity in the chemical industry and beyond a global guiding principle and aims to become fully circular itself in the long term: with circular products for which there is an increasing demand and by switching production to renewable raw materials, green electricity and innovative recycling.

(Sources: ¹Global Carbon Project; ²Global Footprint Network; ³World Bank)

Take the quiz

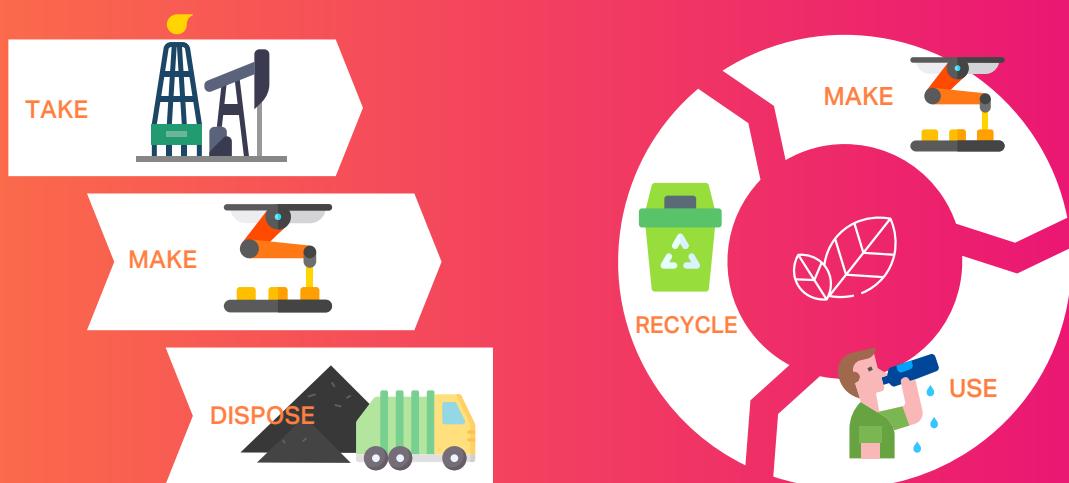
How circular is the world?



ANSWER: 8.6%

Linear Economy to Circular Economy

Manufacture, consume, throw away – the traditional linear economy leads to a dead end.
We need a paradigm shift to the circular economy with sustainable ways of behavior and production.



BECOMING THE BEST OF WHO WE ARE

When it comes to finding answers to the most pressing problems of our time, chemical companies like Covestro have a crucial role to play. Climate change, a growing world population and new forms of mobility and urbanization – all of these are challenges that we are meeting with our sustainable solutions. In order to be able to use our full potential for this purpose, we are positioning ourselves optimally.

"SUSTAINABLE FUTURE"

This journey has already started for Covestro. With our vision to become fully circular, we have a clear goal in mind. The key course has been set through our new strategy "Sustainable Future". In 2021, we already reached a central milestone of our strategy's first chapter: "Become the best of who we are." We have reorganized our Group structure, enabling us to move even closer to our customers, better meet their needs and achieve sustainable growth together. Overall, we are becoming more digital, more efficient and more competitive. This optimal setup brings us another step closer to our vision of the circular economy.

The vision of becoming fully circular sets the direction for our Group strategy "Sustainable Future"



BECOME THE BEST OF WHO WE ARE

Transform the company to exploit its full potential



DRIVE SUSTAINABLE GROWTH

Address sustainability in a profitable way



BECOME FULLY CIRCULAR

Accelerate the transition to a fossil-free economy

Advance digitalization

Expand "We Are 1" culture

A STRONG FOUNDATION

To become fully circular and grow sustainably, you need one thing more than anything else: a strong foundation. With curiosity and different perspectives, we drive innovation and progress. That is why Covestro relies on a diverse workforce in which people come together regardless of age, origin, religion, gender or sexual orientation. Nevertheless, they all have one thing in common: safety.

At Covestro, safety is an all-encompassing concept. In addition to plants and production processes, the focus is above all on employees. After all, safety requires a corporate culture in which people approach each other, pay attention, communicate openly and treat each other with respect.

"WE ARE 1"

Team Resource Management (TRM) training, which Covestro implements at all production sites worldwide, provides valuable support in this regard. Under the guidance of instructors with experience in TRM, our teams use simulations to learn how the human factor influences safety. This is complemented by practical tools to ensure smooth interaction and improve communication within the teams.

In this way, we strengthen our "We Are 1" culture, in which team thinking and mutual appreciation are paramount – and where safety is anchored as the foundation of our business.



»Effective communication and a sustainable error culture are at the heart of TRM. The training made it clear to me once again what factors can disrupt communication. All participants were made aware that – even if it is tedious – we need to talk regularly, openly and with mutual respect about all the little things that sometimes don't run optimally in everyday operations but often fall by the wayside in the stress of everyday life.«

Dr. Ralph Weber,
Plant Manager at Covestro

TAKING ACTION



Becoming fully circular will take decades. To address this challenge, we constantly take action. We invest in sustainable growth. We drive research and development. And foremost: We work with partners – **because a climate-neutral and circular future can only be achieved together.**

GROWING SUSTAINABLY

The desire for a better world is becoming ever more urgent – it should be climate friendly, more resilient, healthier. Covestro is helping to realize this brighter world, because our high-quality plastics are used almost everywhere and are part of the solution to the challenges of our time. To this end, we systematically combine economic and sustainable aspects to create new growth impetus.

ADDRESSING SUSTAINABILITY IN A PROFITABLE WAY

As part of its vision to become fully circular, Covestro is systematically expanding its portfolio of circular products. We are also investing around 1 billion euros in circular-economy projects over the next ten years. In addition to our research and development activities, we will also be orienting our acquisitions and investments even more strongly towards sustainability in the future. For example, we are expanding production capacities and investing specifically in the construction of a world-scale plant for the production of the rigid foam component MDI, a material that enables the energy-efficient insulation of buildings.

In this way, we are driving sustainable growth in various areas and helping to make the world a brighter place with our sustainable solutions.

»The use of sustainable technologies is key for us. For example, our new AdIP technology reduces CO₂ emissions in an MDI plant by up to 35 percent.«

Dr. Klaus Schäfer,
Chief Technology Officer



SCALING UP SUCCESS STORIES

Future mobility is a matter of concern to us all. Driving with fossil fuels is increasingly reaching its limits, which raises the question of how we will get from A to B in ten years and beyond. To answer this question in the near future, innovative minds are constantly developing new ideas for future mobility. Team Sonnenwagen Aachen is a group of such innovators. These students from RWTH Aachen University (Germany) and FH Aachen University of Applied Sciences (Germany) spend much of their spare time building solar cars, powered only by the sun. The goal is to test them under tough conditions in competitions with peers from around the world.

LIGHTWEIGHT AND ROBUST

Team Sonnenwagen Aachen has set themselves the task of optimizing the efficiency of their solar cars to enable them to travel several hundred kilometers without having to stop and charge. One of the key reasons why they manage to achieve that is the right choice of lightweight yet robust materials. High-tech materials are a key enabler for future mobility concepts and part of the reason why Team Sonnenwagen Aachen has chosen Covestro as their main sponsor for the third time in a row. With the Covestro Photon, as the solar car for 2021 is called, we are taking action and can jointly push the boundaries of future mobility to demonstrate the great potential of plastics for a sustainable future.



EXPLORE
ONLINE VIDEO



Take the quiz

How heavy is the Covestro Photon?

50 kg

180 kg

310 kg

ANSWER: 180 kg



FOSTERING COLLABORATION

Climate protection is a joint task. This applies on both a large and a small scale. Only if government players, industry and consumers pull together can the comprehensive transformation of our society towards climate neutrality and a circular economy succeed in a timely manner.

Partnerships along the entire value chain are therefore a central component of Covestro's strategy and an important part of how we take action to become fully circular. This is also illustrated by the innovation project CIRCULAR FOAM: Together with 21 partners from 9 countries, Covestro is working to close the material loop for rigid polyurethane foams from refrigerators and buildings. The focus is on two recycling paths: chemolysis and smart pyrolysis.

WITH SYSTEMIC APPROACH

However, the development of innovative processes for chemical recycling is not the only prerequisite for the success of the project. A systemic approach is needed to close the material cycle and create a blueprint for the circular economy. After all, completely new circular value chains have to be created and the participation of all relevant stakeholders in politics, society and industry has to be secured.

But the joint efforts are worthwhile. After all, implementing the system across Europe could save 1 million tons of waste, 2.9 million tons of CO₂ emissions and 150 million euros in incineration costs annually as early as 2040. An important contribution to the realization of the circular economy.



**EXPLORE
ONLINE VIDEO**

SETTING STANDARDS



To achieve a sustainable future, innovation is indispensable. To that end, Covestro is pushing boundaries to set standards. How? Three examples: **alternative raw materials, new recycling methods and digitalization.**

ALTERNATIVE RAW MATERIAL BASES

A sustainable and climate-neutral circular economy is not just a vision; it already presents a multitude of opportunities for action. One example is mass balancing, which allows the proportion of alternative raw materials in production to be gradually increased and allocated to selected products. By applying this principle to the entire value chain and certifying it according to the globally recognized ISCC PLUS standard, the proportion of renewable raw materials increases and products become more sustainable. By pursuing this approach, Covestro's aim is to gradually switch its global production to certified mass-balanced products and thus significantly expand its alternative raw material base.

We are therefore also providing transparency for our customers while helping them to become more sustainable. Another advantage is that the alternative raw materials can be used in existing production processes without any major changeovers and without compromising on product quality.

THE JOURNEY CONTINUES

Customers further along the value chain can benefit from the use of mass-balanced raw materials and reduce their own carbon footprint. One example is H.B. Fuller, one of the world's largest manufacturers of industrial adhesives, based in St. Paul, Minnesota, USA. As part of a supply agreement with Covestro, it receives ISCC PLUS-certified, mass-balanced adhesive raw materials used primarily in the automotive, wood, composites and textile industries. "The ability to source certified renewable feedstock in large quantities based on the mass-balanced approach allows us to use molecules that bring a significant reduction in our carbon footprint without compromising the performance of PU adhesives," says Iñaki Sigler, Global Product Manager for Woodworking and Composites at H.B. Fuller. "This is an investment in a future that we are all a part of." Thus, with our mass-balanced approach, we are already setting standards and accelerating the path towards a circular economy.



EXPLORE
ONLINE VIDEO

Take the quiz

Which Covestro site in the Asia-Pacific region received ISCC PLUS certification in 2021?

Shanghai

Greater Noida

Linyuan



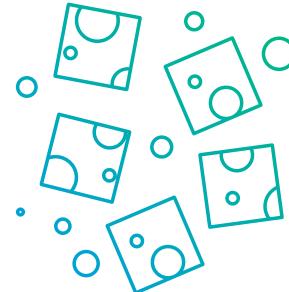
ANSWER: Shanghai

INNOVATIVE RECYCLING METHODS

Flexible polyurethane foam: a versatile material that offers comfort in everyday life – for example in car seats, shoe soles and mattresses. Covestro produces main components of the foam, and they are becoming more and more popular. For the TDI component alone, the company expects global demand growth to increase to 6 percent per year through 2025. That is a lot of mattresses!

REUSING MATTRESSES

Polyurethane has one disadvantage, however: it cannot be recycled very well with the established mechanical recycling processes. But Covestro is working intensively to change things in this regard. We have developed a pioneering process to chemically recycle the soft foam from used mattresses. The material is broken down into molecules, which are then reassembled into new foam precursors. "In contrast to other approaches, our process targets both components, the TDI precursor TDA and polyol," says project manager Karin Clauberg. Since the beginning of 2021, Covestro has operated a pilot plant at its Leverkusen (Germany) site to confirm the positive laboratory results.

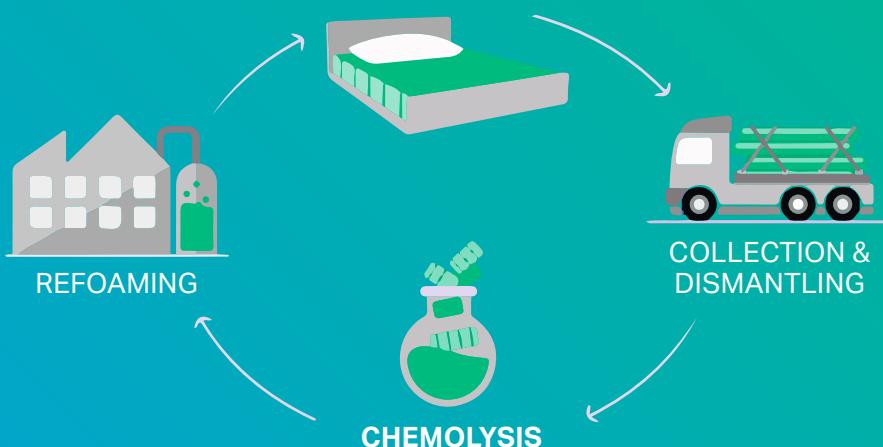


3.1 million tons

of the TDI foam component will probably be in demand worldwide in 2025 – an increase of 800,000 tons compared to 2020.

Source: Covestro IR presentation

Replacing fossil fuels with innovative Covestro technology



Foam mattresses have been difficult to recycle to date. However, with an innovative method from Covestro, the material can be chemically decomposed and new foam components can be produced from the molecules.

DIGITALIZING CHEMISTRY

The circular economy requires a restructuring of the entire economy. This transformation can only succeed if we also take full advantage of the opportunities offered by digitalization. Therefore, in chemical research, we are relying on enormous computing power and access to external high-performance computers as well as quantum computing. With this, we want to significantly accelerate development efforts. Our expertise in chemistry along with artificial intelligence, machine learning and computing power will clearly push the boundaries.

DIGITALIZING OUR CORE BUSINESS

Beyond this, we pay special attention to the digitalization of our core business. We continuously leverage efficiencies in basically all areas of the company and invest in collaboration with our customers. To this end, we use all available means of digitalization to make the usage of our products by our customers more efficient and effective, but at the same time more convenient. It has recently become possible, for example, to digitally track deliveries of our products by sea.

None of this can be done on our own, which is why we successfully build long-term partnerships. For us, it is absolutely clear that digitalization will change the way we work as a chemical company in the future. By seizing our opportunities now and developing our core areas digitally, we will be able to use these technologies to set standards for a sustainable and circular future.



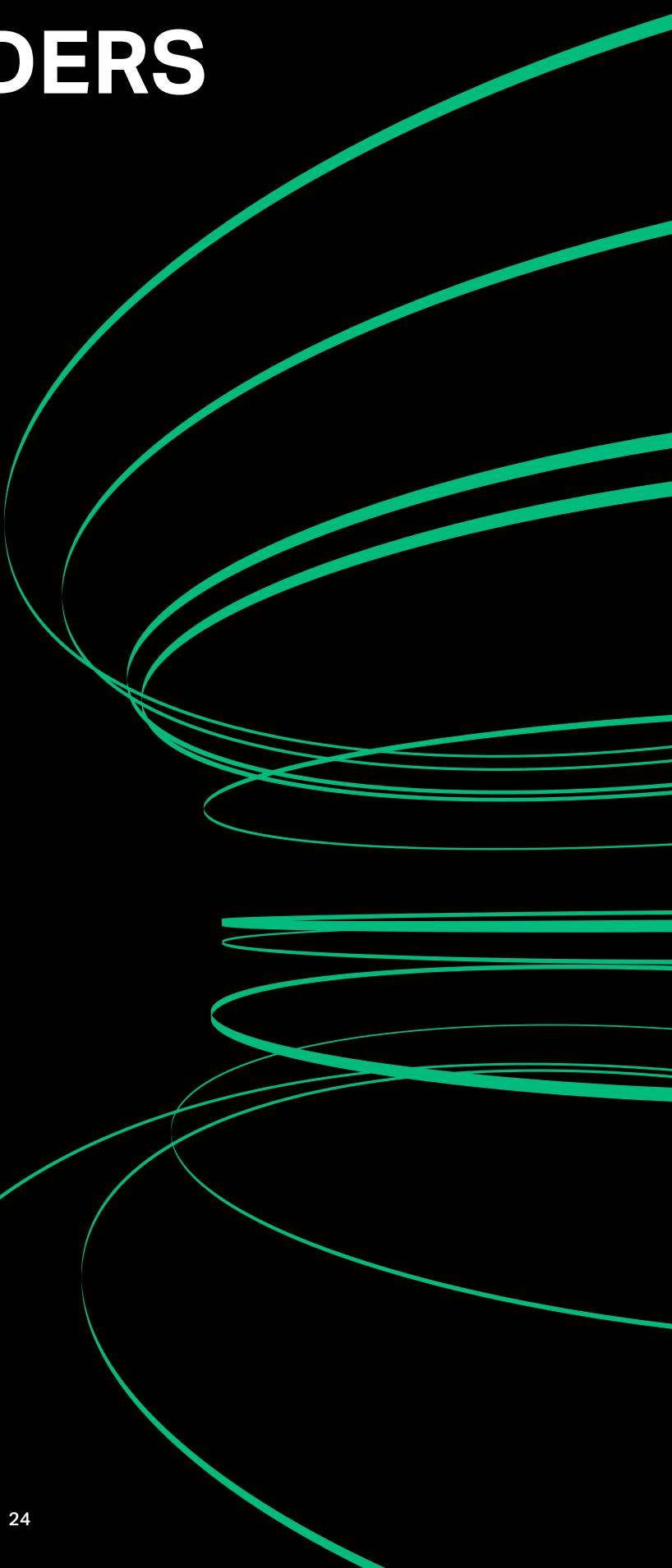
»Digital processes bring us clear benefits: satisfied customers and employees, better use of resources, and precisely tailored provision of technologies with their finger on the pulse.«

Walter Grüner,
Chief Information Officer at Covestro

TO OUR SHAREHOLDERS

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Report of the Supervisory Board



Dr. Richard Pott, Chairman of the Supervisory Board

Dear Shareholders,

Covestro can look back on an eventful and successful year in 2021.

Despite the uncertainties we faced due to the ongoing coronavirus pandemic, dynamic economic recovery was the hallmark of the fiscal year. We saw a return to significant growth in demand from the customer industries important for Covestro and acted decisively to unlock the opportunities this offered us. The Group is firmly back on its growth path as a result and finished out the year 2021 very successfully on the whole.

At the beginning of last year, Covestro announced the new Sustainable Future corporate strategy. The guiding principle of this strategy and the Group's long-term vision is to become fully circular. In the interest of this vision, Covestro realigned its organizational and reporting structure effective July 1, 2021. The Group has therefore focused its businesses even more closely on the requirements of individual markets and aligned them to a greater degree with its customers' needs.

In the past fiscal year, we also concentrated our efforts on the focused expansion of sustainable growth segments and business areas attractive for Covestro in the long term. In spring 2021, Covestro reached another important milestone in this regard: successfully completing the acquisition announced in September 2020 of the Resins & Functional Materials (RFM) business of Netherlands-based Koninklijke DSM N.V. after antitrust authorities approved the deal. The fully completed acquisition as well as the integration of RFM, which has so far been seamless, makes Covestro one of the world's leading suppliers of sustainable coating resins.

These initial steps are important ones in the transformation of Covestro into a fully circular company. At the same time, Covestro is facing up to the continuously expanding and increasingly more complex substantive, societal, political, and regulatory requirements for companies in the area of sustainability. A Sustainability Committee was set up to reflect and handle this issue, which is so important for Covestro, in an appropriate manner in the Supervisory Board as well. This body works primarily on sustainable corporate governance and the Group's environmental, social, and governance (ESG) activities. We are very pleased in this context that Lise Kingo was elected to the Supervisory Board in fiscal 2021. She joins as a well-known expert with proven expertise in this important area, and the Supervisory Board has tasked her with chairing the Sustainability Committee.

The Audit Committee is also facing more stringent requirements, not least due to the new German Act to Strengthen Financial Market Integrity (FISG). In the interest of giving due consideration to the overall increase in quality and time demands on the Supervisory Board, its committees, and its members, we have decided, for the first time since the company was established, to present to the Annual General Meeting (AGM) for approval a modified Supervisory Board compensation structure that reflects this increase in requirements and responsibilities. We would appreciate your approval.

During the reporting period, the Supervisory Board of Covestro AG performed its duties with due care in accordance with the law, the Articles of Incorporation, and the rules of procedure. During fiscal 2021, it monitored the conduct of the company's business by the Board of Management with regular frequency based on detailed written and oral reports received from the Board of Management, and also acted in an advisory capacity. The discussions between the Supervisory Board and Board of Management were always constructive and were conducted in the spirit of openness and trust.

The Supervisory Board Chair was in regular contact with the Board of Management outside of Supervisory Board meetings and remained informed about current developments in the company's business performance and material transactions. In addition, the Chair of the Supervisory Board was in close contact with the Chair of the Board of Management to discuss important questions and decisions one on one. The full Supervisory Board was informed in detail about the content of these discussions no later than during the next meeting.

In this way, the Supervisory Board was kept regularly and fully informed in the respective meetings about the company's intended business strategy, corporate planning (including financial, investment, and human resources planning), the company's profitability, the state of the business, and the situation of the company and the Group (including the risk situation, risk management, and the compliance situation). Where Board of Management decisions or actions required the approval of the Supervisory Board during the reporting period, whether by law, or under the Articles of Incorporation or the rules of procedure, the draft resolutions were inspected and discussed in detail by the members of the Supervisory Board at its meetings, sometimes after preparatory work by the responsible committees, or approved in writing on the basis of documents circulated to the members. The Supervisory Board was always directly involved in decisions of material importance to the company. It discussed in detail the business trends described in the reports from the Board of Management and the prospects for the development of the Covestro Group as a whole, the individual segments, and the regions. The Supervisory Board continually ensured that the actions of the Board of Management were lawful, due and proper, and appropriate.

Meetings of the Full Supervisory Board and Member Attendance

In fiscal year 2021, the Supervisory Board held a total of seven meetings, all of which – with the exception of the meetings on August 24 and December 20 – were also attended by at least one member of the Board of Management, except where issues were discussed that required them to be absent. The meetings mostly took place entirely remotely or as hybrid sessions due to coronavirus pandemic restrictions.

The members of the Supervisory Board attended the meetings of the Supervisory Board of Covestro AG and its committees, as follows:

Member of the Supervisory Board	Meeting attendance (including committee meetings) ¹	Attendance rate (%)
Dr. Richard Pott (Chair)	12/12	100.0
Ferdinando Falco Beccallì (until April 2021)	2/2	100.0
Dr. Christine Bortenländer	12/12	100.0
Lise Kingo (since April 2021)	7/7	100.0
Petra Kronen (Vice Chair)	16/16	100.0
Irena Küstner	11/12	91.7
Dr. Ulrich Liman	13/13	100.0
Prof. Dr. Rolf Nonnenmacher	12/12	100.0
Petra Reirbold-Knappe	12/12	100.0
Regine Stachelhaus	12/12	100.0
Marc Stoßfang ²	3/9	33.3
Patrick Thomas ³	13/15	86.7
Frank Werth	7/7	100.0
Average attendance rate		93.6

¹ Five Supervisory Board and eleven committee meetings were held virtually.

² Due to illness no meetings attended since August 2021.

³ Absence due to other diary commitments made before the Supervisory Board appointment.

In addition, some Supervisory Board members attended meetings of the Sustainability Committee intended for guest attendance (Supervisory Board members Petra Kronen and Irena Küstner attended two meetings each and Prof. Dr. Rolf Nonnenmacher, Regine Stachelhaus, and Frank Werth attended one meeting each). The Chairman of the Supervisory Board attended both meetings of the Sustainability Committee and all five meetings of the Audit Committee as a guest.

Based on its composition and experience, the Supervisory Board as a whole has in-depth industry expertise in the polymer sector in which Covestro operates.

Despite the challenges posed by the coronavirus pandemic and the associated restrictions on physical events and travel, members of the Supervisory Board once again participated in continuing education in the 2021 reporting year. A daylong strategy workshop was held in conjunction with the strategy meeting of the Supervisory Board in October 2021. Another externally facilitated two-day Supervisory Board workshop in August mainly covered the specific roles, duties, challenges, and experience of the Supervisory Board and its committees (effectiveness and efficiency). The workshop also served as a teambuilding measure for the Supervisory Board; it was preceded by preparatory one-on-one interviews and a structured feedback process. Both workshops were held as physical events.

Principal Topics Discussed by the Supervisory Board

The deliberations of the Supervisory Board focused on the Board of Management's regular reports on business activities, which contained detailed information on the development of the sales and earnings for the Group and the segments as well as on the strategy, opportunities and risks situation, and personnel matters at Covestro. The two highest-priority topics of fiscal 2021 – the Group's transformation and the acquisition and integration of the RFM business – were the subject of all Supervisory Board meetings also attended by Board of Management members in the past year. At these meetings, the Supervisory Board received very detailed reports, extensively discussed the progress made and existing challenges, and verified the underlying assumptions. The Supervisory Board also concentrated on the following topics in its individual meetings:

In its meeting on February 22, 2021, the Supervisory Board discussed in detail the annual and consolidated financial statements for fiscal 2020, the Combined Management Report including the nonfinancial Group statement, the proposal for the use of the distributable profit and the amended dividend policy, which is based more strongly on the Group's earnings. The Supervisory Board also reviewed in detail the audit report and the auditor's oral report concerning the material results of the audit. In addition, the Supervisory Board examined internal risk reporting, which sets out the material risks for the Group and current developments in this regard, as well as the relevant countermeasures. Furthermore, the organization, statistics, training efforts, processes, and effectiveness of the Group's compliance management system were reviewed in depth. The Supervisory Board also talked at length about the results of its effectiveness and efficiency review performed as a self-evaluation based on a written questionnaire answered by Supervisory Board members. The main topics covered were the Supervisory Board meeting process; cooperation with the Board of Management; the provision of information to the Supervisory Board, composition and work of its committees; and cooperation among the shareholder and employee representatives. On the whole, the Supervisory Board's activity was evaluated and found to be appropriate and effective by its members. This assessment was also underpinned by the presentation of provisional results of interviews with Supervisory Board members already conducted by a third-party coach in preparation for the Supervisory Board workshop held in August 2021. In this meeting, the Supervisory Board also approved the Board of Management's decision to hold a virtual AGM on April 16, 2021, due to the ongoing coronavirus pandemic and discussed the AGM agenda and proposed resolutions as well as the election of a shareholder representative to take place there. Further topics included various compensation issues.

At the Supervisory Board meeting on April 16, 2021, the main agenda item was the virtual AGM on the same day.

The Supervisory Board meeting on June 9, 2021, focused specifically on the Group's new organizational and reporting structure, which came into effect on July 1, and the integration of the acquired RFM business following the completion of the acquisition. Another important topic discussed at this meeting was Diversity@Covestro, which relates to corporate culture and human resources planning.

The Supervisory Board workshop was held on August 23 and 24, 2021. Another Supervisory Board meeting was subsequently held on August 24, 2021, to focus on establishing the Sustainability Committee, which will advise the Supervisory Board, its committees, and the Board of Management on issues concerning sustainable corporate governance and the company's environmental, social, and governance (ESG) activities in particular. It will support, monitor, and issue recommendations on the Board of Management's ESG strategies, targets, and initiatives, including the environmental, social, societal, ethical, and circular economy aspects of Covestro's business along the entire value chain.

In its meeting on October 7, the Supervisory Board deliberated on Covestro's Group strategy and especially its implementation and the associated measures. A strategy workshop organized by the Board of Management had been held on the previous day with the participation of the Supervisory Board. Topics relevant to Covestro, including climate neutrality, recycling and the circular economy, Customer Centricity, and digital transformation were discussed in detail at this workshop. The resolution on extending Sucheta Govil's contract as Covestro's Chief Commercial Officer (CCO) was also passed at this Supervisory Board meeting. Furthermore, the rules of procedure of the Supervisory Board were amended to reflect the establishment of the new Sustainability Committee and the requirements of the FISG accordingly.

In its meeting on December 7, 2021, the Supervisory Board considered various compensation issues. The Supervisory Board reviewed the Board of Management's fixed compensation on a regular basis and decided on the system for determining short-term variable compensation for the 2022–2024 period. Further, the Supervisory Board discussed the amount and system for determining the Supervisory Board's compensation. The Board additionally discussed in detail the financial planning for fiscal 2022 proposed by the Board of Management and the medium-term outlook also presented. The Supervisory Board approved both the financial plan and the financing framework proposed for fiscal 2022. In this meeting, the Supervisory Board also voted to issue an unqualified declaration of conformity with the German Corporate Governance Code and a gender-sensitive version of its rules of procedure.

In the last meeting of the year on December 20, 2021, the Supervisory Board nominated Dr. Sven Schneider as the new candidate to succeed Prof. Dr. Rolf Nonnenmacher, who is stepping down. The election will take place at the Annual General Meeting in 2022.



Covestro AG Supervisory Board (from left to right):

First row: Dr. Richard Pott, Petra Kronen, Dr. Christine Bortenländer, Lise Kingo

Second row: Irena Küstner, Dr. Ulrich Liman, Prof. Dr. Rolf Nonnenmacher, Petra Reinbold-Knape

Third row: Regine Stachelhaus, Marc Stothfang, Patrick Thomas, Frank Werth

Committees of the Supervisory Board

In the past fiscal year, the Supervisory Board had five permanent committees set up for the purpose of exercising its duties effectively and efficiently. The committees prepared resolutions by the full Supervisory Board and provided information on other topics to be discussed by this body. Moreover, certain decision-making powers of the Supervisory Board were delegated to the committees to the extent legally permissible. The Supervisory Board currently has the following permanent committees: Presidial Committee, Audit Committee, Human Resources Committee, Nominations Committee, and Sustainability Committee (since August 2021).

The tasks and responsibilities of the standing committees and their current composition are described in greater detail in "Declaration on Corporate Governance" under "Committees of the Supervisory Board" in the Combined Management Report.

The meetings and decisions of all committees, and especially the meetings of the Audit Committee, were prepared on the basis of reports and explanations provided by the Board of Management. The committee chairs regularly provided comprehensive reports on the work of the committees to the full Supervisory Board.

In fiscal 2021, the [Presidial Committee](#) was not required to convene in its capacity as the mediation committee.

The [Audit Committee](#) met a total of five times: on February 19, April 26, June 9, August 5, and November 2, 2021, every time in the presence of the CFO. Three of these meetings were also attended by the auditor. The Audit Committee conducted a preparatory review of the financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, the Combined Management Report, and the proposal for the use of the distributable profit for the Supervisory Board. Additionally, it also discussed in detail the respective audit report and in particular, along with the oral report by the auditor on the material results of the audit. The Combined Management Report also included the Group's nonfinancial statement. In conducting its review, the Audit Committee found no grounds for objections. It recommended to the Supervisory Board to approve the annual financial statements and consolidated financial statements for fiscal 2020 as well as to consent to the Combined Management Report and the proposal for the use of the distributable profit. In addition, the Audit Committee discussed with the Board of Management the half-year financial report in light of the results of the review by the auditor, and the Q1 and Q3 2021 interim statements prior to their publication.

The Audit Committee monitored the accounting and financial reporting process and the effectiveness of the internal control system, the risk management system, and the internal audit system and deliberated on the audit of the financial statements and compliance. In doing so, the Committee received reports, including from the head of the Corporate Audit function and the auditor. No material weaknesses were identified in the internal control system for financial reporting purposes or the risk early warning system.

The Audit Committee additionally undertook preparations for the Supervisory Board's proposal for the appointment of the financial statement auditor by the AGM, the engagement of the auditor and agreement on the auditor's fee. It monitored the quality of the audit and the independence of the auditor as well as the supplementary non-audit services provided in addition to the financial statement audit. In this context, the committee had the auditor confirm their independence.

The Audit Committee continually exchanged information with the auditor about the material audit risks and the necessary direction of the audit, as well as discussing the areas of focus for the audit proposed by the auditor.

Topics of note discussed by the Audit Committee in this fiscal year were changes brought about by the FISG and the implementation of the requirements of the EU Taxonomy Regulation. Furthermore, the Audit Committee obtained information on an ongoing basis on enhancements to the compliance management system (particularly regarding anti-corruption measures), on the handling of suspected compliance violations, progress in significant litigation, new legal and regulatory risks, and on the risk situation, risk tracking, and risk monitoring in the Group. The Corporate Audit function provided regular reports about risk assessments.

The heads of the relevant departments also participated in meetings of the Audit Committee on selected agenda items, reported on these and answered questions. In addition, the Chair of the Audit Committee discussed

important matters between meetings, particularly with the Supervisory Board Chair, the CFO and the auditor. The key results of these discussions were reported regularly to the Audit Committee and the Supervisory Board.

In the reporting period, the [Human Resources Committee](#) met for a total of four meetings held on February 22, June 9, October 7, and December 2, 2021. In its first meeting, the Committee primarily reviewed the new compensation system for and target attainment by the Board of Management members. In the meeting on June 9, the Human Resources Committee mainly discussed Diversity@Covestro. Its third meeting on October 7 was devoted to reappointing and extending the contract of Sucheta Govil. On December 2, the agenda items included the appropriateness of Board of Management compensation, the new tranche of long-term compensation, and amendments to the Board of Management's compensation system regarding short-term variable compensation. In addition, the Human Resources Committee approved Dr. Markus Steilemann assuming a seat on the Supervisory Board of Fuchs Petrolub SE, Mannheim (Germany).

On June 14, 2021, the Committee also issued approval for Dr. Thomas Toepfer to potentially assume a Supervisory Board position at CLAAS KGaA mbH, Harsewinkel (Germany), in a written vote.

In the reporting period, the members of the [Nomination Committee](#) met on October 1, 2021, to prepare for the election of a new shareholder representative to the Supervisory Board to replace Prof. Dr. Rolf Nonnenmacher, who is stepping down. In a written vote on December 15, 2021, the Nomination Committee then agreed to nominate Dr. Sven Schneider as a candidate to the Supervisory Board.

After it was established on August 24, 2021, the [Sustainability Committee](#) held two meetings. In its first meeting on September 20, the discussion focused mainly on defining the duties and responsibilities of the Sustainability Committee. In addition, the Committee discussed new developments and trends in sustainability. In its second meeting on December 3, 2021, the Committee reviewed best practice on carbon reductions in the industry. In this context, it also discussed Covestro's climate program, including the status quo, targets, and relevant indicators.

Financial Statements/Audit

The financial statements of Covestro AG were prepared in accordance with the requirements of the German Commercial Code (HGB) and German Stock Corporation Act (AktG). The consolidated financial statements of the Covestro Group were prepared in accordance with the German Commercial Code (HGB) and the International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU). The Combined Management Report including the Group's nonfinancial statement was prepared in accordance with the German Commercial Code. The auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf, audited the financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, and the Combined Management Report including the Group's nonfinancial statement. KPMG AG Wirtschaftsprüfungsgesellschaft has audited Covestro's financial statements since fiscal 2018. Dr. Markus Zeimes and Franziska Schenk signed the Independent Auditor's Report for fiscal year 2021. Mr. Zeimes first signed the Independent Auditor's Report on December 31, 2018, and Ms. Schenk on December 31, 2021. The conduct and results of the audit are explained in the auditor's reports. The auditor finds that Covestro has complied, as appropriate, with the German Commercial Code, the German Stock Corporation Act and/or the IFRS regulations as adopted by the EU, and issues unqualified opinions on the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group. The financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, the Combined Management Report including the Group's nonfinancial statement, and the audit reports were submitted to all members of the Supervisory Board. The Audit Committee and the Supervisory Board reviewed the financial statement documentation in depth after the auditor's report was presented. The auditor attended both meetings.

The Supervisory Board examined the financial statements of Covestro AG, the proposal for the use of the distributable profit, the consolidated financial statements of the Covestro Group, and the Combined Management Report including the Group's nonfinancial statement. It had no objections and thus concurred with the result of the audit.

The Supervisory Board approved the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group prepared by the Board of Management. The financial statements of Covestro AG are thus confirmed. The Supervisory Board is in agreement with the Combined Management Report and, in particular, with the assessment of the future development of the company. It also concurs with the dividend policy and the decision to add to the company's reserves. The Supervisory Board agreed with the proposal for the use of the distributable profit, which proposes a dividend of EUR 3.40 per share. The Board of Management and Supervisory Board jointly prepared the annual compensation report.

Corporate Governance and Declaration of Conformity

During the reporting year, the Supervisory Board again extensively addressed Covestro's corporate governance, taking into account the German Corporate Governance Code and, together with the Board of Management, submitted an unqualified declaration of conformity in accordance with Section 161 of the German Stock Corporation Act in December 2021 based on the Code in the December 16, 2019, version. This declaration has been posted on Covestro's website.

Change in the Composition of the Supervisory Board

At the Annual General Meeting on April 16, 2021, Lise Kingo was elected to the Supervisory Board to succeed Ferdinando Falco Beccalli, who stepped down. The Supervisory Board would like to thank Ferdinando Falco Beccalli for his efforts on behalf of the company and for a good working relationship over the past six years.

Expression of Appreciation from the Supervisory Board

The Supervisory Board would like to thank the Board of Management and all of Covestro's employees for their unwavering dedication in the 2021 fiscal year. We wish them all success in the continued implementation of the new corporate strategy.

The Supervisory Board would also like to thank Covestro's shareholders for the trust they have placed in the company.

Leverkusen, February 22, 2022

For the Supervisory Board

Dr. Richard Pott
Chairman

Covestro on the Capital Market

Performance of Covestro shares versus market in fiscal year 2021



Volatile Stock Markets Trend Upward

As in the previous year, the stock markets felt the effects of the global coronavirus pandemic in fiscal 2021, although the impact was considerably less severe. Year-over-year improvements in real economic factors represented a positive basis of assessment for the stock markets despite bottlenecks in global supply chains. Stock markets in Europe were therefore able to continue on their upward trajectory started in mid-2020. The European benchmark index EURO STOXX 50* outperformed its pre-pandemic level as early as the end of the first quarter of 2021. By the end of fiscal 2021, the stock markets saw positive performance amid volatility and closed out the year up significantly. The EURO STOXX 50 ended fiscal 2021 at 4,306 points, 20.6% higher than in the previous year, whereas the DAX finished the year at 15,885 points, an increase of 15.8% year over year.

European chemical stocks continued to follow the upward trend that had started in the second half of 2020, outpacing the market as a whole. As of December 31, 2021, the STOXX Europe 600 Chemicals** index was up 24.8% from its level at the beginning of the year. At a Xetra closing price of €54.20, Covestro's share price also finished fiscal 2021 up, although the gain was moderate at 7.4% over December 31, 2020. Whereas the company raised its earnings guidance three times during the fiscal year, Covestro's share price largely made sideways moves. Covestro's share price marked its low for the year on November 30, 2021, closing at €49.84. The high for the year was €62.48 on March 2, 2021.

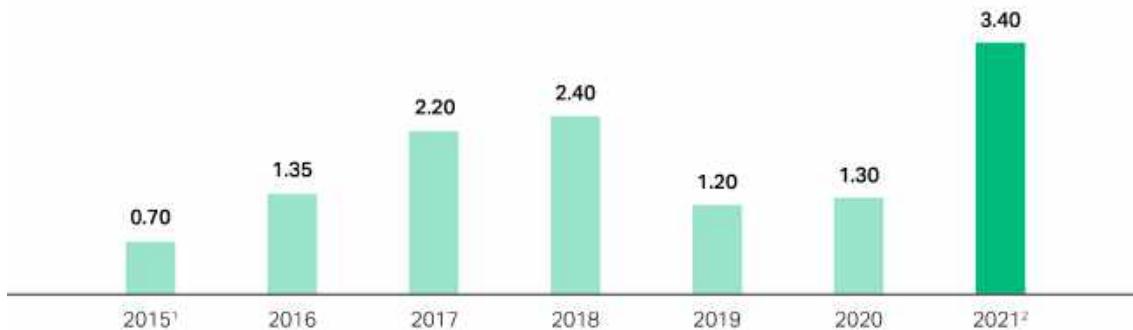
Including the 2020 fiscal year dividend of €1.30 per share paid out on April 21, 2021, Covestro's stock performance (with dividend reinvestment) for fiscal 2021 was 9.9% compared with the 2020 year-end closing price of €50.48.

* EURO STOXX 50: European stock index that reflects the share price performance of the 50 most important and highest-revenue companies in Europe.

** STOXX Europe 600 Chemicals: Sector index by index issuer STOXX; the STOXX Europe 600 comprises 600 European companies.

Dividend performance

Dividend per share carrying dividend rights (€)

¹ Short fiscal year of Covestro AG.² Proposed dividend.

At the end of the reporting period, Covestro's market capitalization stood at €10.5 billion based on the capital stock of 193.2 million shares. The average daily Xetra trading volume was 0.9 million shares.

Covestro share at a glance

		2020	2021
Average daily turnover	million shares	1.5	0.9
Closing date (Dec. 31)	€	50.48	54.20
High	€	51.24	62.48
Low	€	24.90	49.84
Outstanding shares (closing date)	million shares	193.2	193.2
Market capitalization (closing date)	€ billion	9.8	10.5
Share price change	%	21.8	7.4
Share price performance (with dividend reinvestment)	%	26.2	9.9

Xetra closing prices for Covestro; source: Deutsche Börse

New Dividend Policy

When it published its 2020 financial statements, Covestro also announced in February 2021 that it would put its dividend policy on a new footing and thus create a stronger link to the Group's overall business situation. Covestro's current dividend policy stipulates a distribution to shareholders of between 35% and 55% of the Group's net income. The aim is for the payout ratio to be around the lower end of the scale in years with strong earnings and around the higher end in challenging years.

Moody's Confirms Covestro Rating and Lifts Outlook

On March 31, 2021, Moody's Investors Service, London (United Kingdom), confirmed Covestro's Baa2 investment-grade rating and lifted the outlook from negative to stable. Covestro intends to continue to maintain financing structures and financial ratios that support a solid investment-grade rating in the future.

Virtual Annual General Meeting Held on April 16, 2021

Covestro AG's 2021 Annual General Meeting (AGM) was held on April 16, 2021. Due to the ongoing coronavirus pandemic, the company had decided early on to hold a virtual AGM as in the previous year to avoid exposing those present to additional health risks.

The AGM approved the dividend of €1.30 per share for the fiscal year 2020 proposed by the Board of Management and Supervisory Board. With a total distribution of €251 million to the shareholders of Covestro AG in April 2021, Covestro's payout ratio amounted to 55%.

Furthermore, Lise Kingo was elected by the AGM as a new member of the Supervisory Board. She succeeded Ferdinando Falco Beccalli, who resigned effective at the end of the 2021 AGM. Among other things, Lise Kingo is an independent member of the Board of Directors at Sanofi SA, Paris (France), and until June 2020 was Chief Executive Officer (CEO) and Executive Director of the United Nations Global Compact, the world's largest corporate sustainability initiative.

Euro Bond Repaid

On July 7, 2021, the euro bond placed in the year 2016 with a total volume of €500 million and maturing in October 2021 was fully repaid at par value ahead of schedule.

ADR Program Successful for Fifth Year

Since December 1, 2016, the American Depository Receipt (ADR) program has granted global investors simplified access to Covestro shares. Covestro ADRs are traded over the counter in the United States under the COVTY ticker symbol. At the end of fiscal 2021, the total number of outstanding ADRs reached 3.6 million (previous year: 2.2 million).

Majority of Analysts Issue Buy Recommendation for Covestro Shares

At the end of the year 2021, Covestro was covered by 24 securities brokers. Of these, 17 analysts issued buy recommendations and six were neutral. One analyst recommended selling Covestro shares. The average share price target was approximately €69 at the reporting date.

Basic Covestro share information

Capital stock	€193,200,000
Outstanding shares (year-end)	193,200,000
Share class	No-par ordinary bearer shares
ISIN	DE0006062144
WKN	606214
Ticker symbol	1COV
Reuters symbol	1COV.DE
Bloomberg symbol	1COV.GY
Market segment	Regulated market
Transparency level	Prime standard
Sector	Chemicals
Index	DAX

COMBINED MANAGEMENT REPORT

COMBINED MANAGEMENT REPORT OF THE COVESTRO GROUP AND COVESTRO AG

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COVESTRO GROUP AT A GLANCE

Company Profile

Organization and Business Model

Organization

Covestro is one of the leading global suppliers of high-tech polymer materials and application solutions developed for these materials. Covestro AG, the parent company of the Covestro Group, is headquartered in Leverkusen (Germany). It is listed on the stock exchange in Germany and is included in the DAX, Germany's leading index.

In the year 2021, Covestro unveiled the Group's new Sustainable Future strategy, which has customer centricity and sustainable growth at its core. The guiding principle of the strategy and the Group's long-term vision is to become fully circular. In the interest of this objective, Covestro realigned its organizational and reporting structure effective July 1, 2021. The Group's previous three reportable segments – Polyurethanes (PUR), Polycarbonates (PCS), and Coatings, Adhesives, Specialties (CAS) – have been replaced with two reportable segments: Performance Materials (PM) and Solutions & Specialties (S & S). The segments further comprise seven precisely defined business entities. These are set up according to their respective success factors. All mission-critical operations along the value chain are incorporated into these new entities. Covestro has thus focused its businesses even more closely on the requirements of individual markets and aligned them to a greater degree with its customers' needs.

 See "Group Strategy" and note 4 "Segment and Regional Reporting" in the Notes to the Consolidated Financial Statements.

The Performance Materials segment forms a separate business entity comprising Covestro's standard urethane components, standard polycarbonates, and base chemicals businesses. The focus here is on reliably delivering standard products at competitive cost.

 See "Performance Materials Segment Strategy."

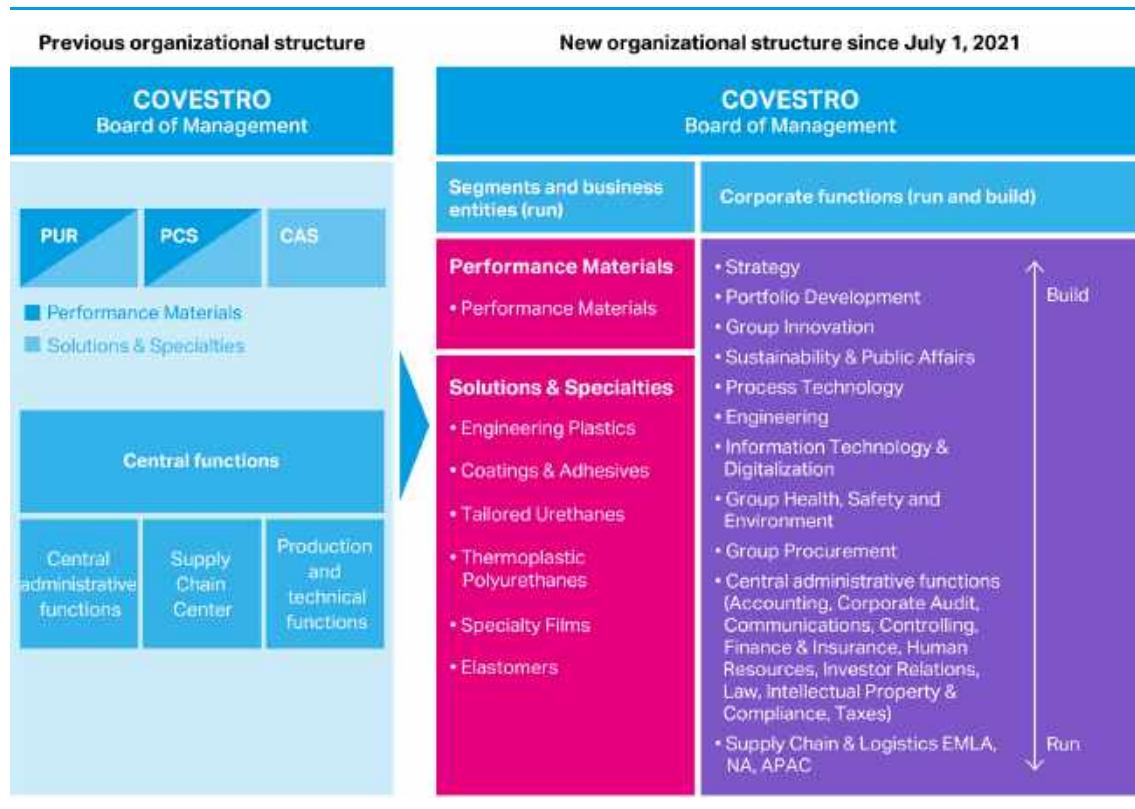
The Solutions & Specialties segment comprises six business entities: Engineering Plastics, Coatings & Adhesives, Tailored Urethanes, Thermoplastic Polyurethanes, Specialty Films, and Elastomers. In this segment, Covestro combines sophisticated products with a high pace of innovation and application technology services.

 See "Solutions & Specialties Segment Strategy."

In addition, the Group has established corporate functions which work toward the further long-term development of Covestro (Build), for instance permanently ensuring the Group's competitiveness and supporting efficient corporate governance (Run). As of December 31, 2021, the Covestro Group comprised 66 consolidated companies in 21 countries in addition to Covestro AG, and employed 17,909 people*.

 See note 5.1 "Scope of Consolidation and Investments" in the Notes to the Consolidated Financial Statements.

* The number of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours.

Group structure

The Board of Management of Covestro AG runs the company on its own responsibility with the goal of sustainably increasing the company's enterprise value, and determines and pursues its corporate objectives. It defines the company's portfolio, allocates resources, and decides on the financial steering and reporting of the Covestro Group.

The Chief Executive Officer (CEO) is Dr. Markus Steilemann. His area of responsibility includes the Strategy, Sustainability & Public Affairs, and Group Innovation, as well as Corporate Audit, Human Resources, and Communications corporate functions.

Sucheta Govil is Covestro's Chief Commercial Officer (CCO). She is in charge of the seven business entities, including all business-related processes and areas of production, from procurement and application technology to sales. In addition, she is responsible for the three regional Supply Chain & Logistics units, which handle internal and external supply chains worldwide.

Dr. Klaus Schäfer is the company's Chief Technology Officer (CTO). He is responsible in that role for the corporate functions of Process Technology, Engineering, Group Health, Safety and Environment, and Group Procurement. He also coordinates the rollout of and compliance with global processes and standards and the rollout of initiatives in Covestro's production network.

Dr. Thomas Toepfer is Covestro's Chief Financial Officer (CFO) and additionally holds the position of Labor Director. His responsibilities comprise the corporate functions of Accounting, Controlling, Finance & Insurance, Information Technology & Digitalization, and Investor Relations, as well as Law, Intellectual Property & Compliance, Portfolio Development, and Taxes. Dr. Toepfer is also responsible for country-specific topics in the United States and China.

See "Composition of the Board of Management."

The Supervisory Board oversees and advises the Board of Management. The Supervisory Board has 12 members, half of whom are shareholder representatives and half employee representatives pursuant to the German Codetermination Act. Dr. Richard Pott is the Supervisory Board Chair and Petra Kronen is Vice Chair.

 See "Declaration on Corporate Governance."

Business Model

Covestro produces precursors for polyurethane foams and the high-performance plastic polycarbonate as well as precursors for coatings, adhesives, sealants, and specialty products, including films. Other precursors such as chlorine and by-products like styrene are also part of Covestro's product portfolio.

The company's materials are used in many areas of modern life. Covestro offers its clientele innovative and sustainable solutions that enable improved performance on the one hand and help reduce carbon footprints on the other. The array of products ranges from insulation for refrigerators and entire buildings, laptop and smartphone cases, and medical technology to scratch-resistant and fast-drying vehicle coatings and film coverings for personal identification cards. Covestro therefore covers a wide variety of sectors: The company's main customers are from the automotive and transportation; construction; furniture and wood processing; and electrical, electronics, and household appliances industries. The products are also used in sectors such as sports and leisure, cosmetics and health, as well as in the chemical industry itself. In addition, materials by Covestro are used to manufacture medical equipment, safety barriers, and sneeze and splash guards used to combat and control the spread of the coronavirus pandemic.

Covestro monitors developments in its sales and consumer markets and orients its activities to support customers' growth. Together with customers as well as with business and scientific partners, the company works continuously to further advance products, technologies, and application solutions. Covestro's main competitors are BASF, Dow Chemical, Huntsman, Mitsubishi, Saudi Basic Industries Corporation (SABIC), and Wanhua Chemical.

 Additional information is available at: solutions.covestro.com/en/brands

Global megatrends play a considerable role in this process: Advancing climate change, the growing global population, increasing urbanization, and new forms of transportation are changing the lives of billions of people. Consequently, the polymer industry will have to develop as well. Companies like Covestro are facing new challenges and playing a part in developing innovative solutions as a result. For this reason, Covestro intends to align its entire production and product range – and ultimately the entire company – to the circular concept in the long term. As part of that, we intend to accelerate transformation to a climate-neutral and resource-conserving economy. The focus here is on alternative raw materials, renewable energy, innovative recycling, and joint solutions. Covestro's aim is to pave the way and support these trends with its materials. By replacing traditional materials with durable, light, more environmentally compatible and cost-effective materials, Covestro makes significant contributions in areas such as lightweight construction in the automotive industry, increasing the energy efficiency of living spaces through the use of new insulating materials, promoting sustainable energy with specialty materials, and improving the shelf-life of food through better insulation along the entire refrigeration chain. Covestro is continually increasing its share of alternative raw materials in production to replace conventional materials, some of which require large amounts of raw materials from nonrenewable sources.

 See "Circular Economy."

 Additional information is available at: solutions.covestro.com/en/industries

Segments

Performance Materials

The Performance Materials segment focuses on developing, producing, and reliably supplying high-performance materials such as standard polyurethanes and polycarbonates, as well as base chemicals. These include diphenylmethane diisocyanate (MDI), toluylene diisocyanate (TDI), long-chain polyols, and polycarbonate resins. Those materials are used in sectors such as the furniture and wood processing industry, the construction industry as well as the automotive and transportation industry. These materials are used in roof structures, insulation for buildings and refrigerators, mattresses, and car seats, among other applications.

Solutions & Specialties

The Solutions & Specialties segment consolidates Covestro's solutions and specialties businesses, and combines chemical products with application technology services. A fast pace of innovation is a key success factor since customer requirements change quickly. Covestro's Solutions & Specialties business comprises a variety of polymer products including precursors for coatings and adhesives, polycarbonates, MDI specialties and polyols, specialty films, elastomers, and thermoplastic polyurethanes. They are used in sectors such as the automotive and transportation industry; the electrical, electronics and household appliances industry; the construction industry; and the healthcare industry. These materials include composite resins for wind turbine rotor blades; precursors for coatings and adhesives; laptop cases; floodlights; and high-quality specialty films. The Resins & Functional Materials (RFM) business acquired by Covestro in the reporting year from Koninklijke DSM N.V., Heerlen (Netherlands), is also part of the Solutions & Specialties segment.

 See "Significant Events."

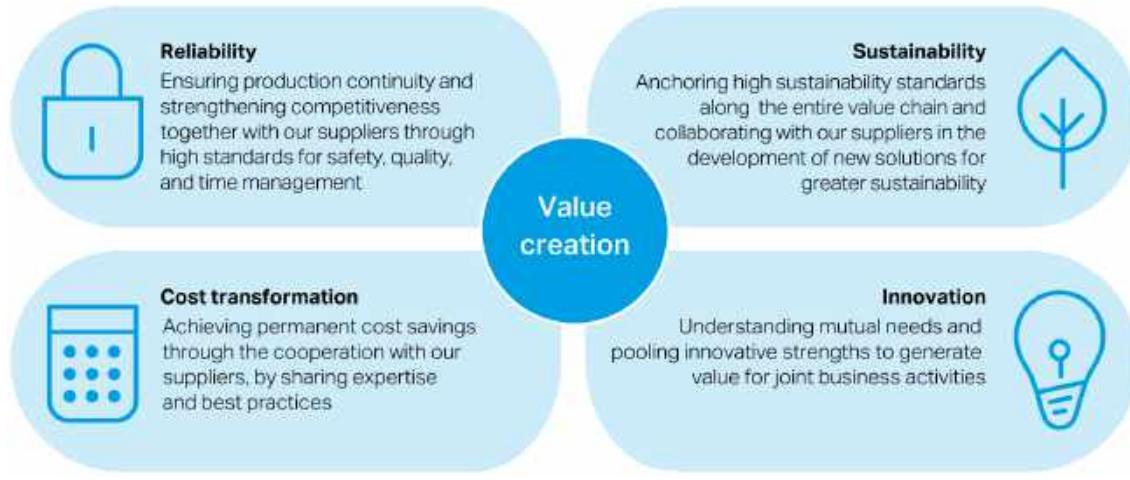
Procurement

Purchasing at Covestro is handled by the corporate Group Procurement function. Group Procurement works with the business entities and hubs of the corporate Supply Chain & Logistics function to ensure the timely global supply of goods and services to all divisions of the company on the best possible terms and conditions. This ensures that the Group's high quality standards are met. Furthermore, Group Procurement is responsible for ensuring that Covestro's ethical and environmental principles are upheld throughout the entire procurement process. The basic tenets of our procurement policy are set forth in a directive that is binding on all employees throughout the Covestro Group.

 See "Sustainability in the Supply Chain."

 Additional information is available at: www.covestro.com/en/company/profile/procurement/sustainability-in-procurement/supplier-code-of-conduct.

Strategic principles in procurement



The objective is to generate a competitive advantage for Covestro and make a decisive contribution to overall value. In doing so, Covestro is guided by four strategic principles: reliability, sustainability, cost transformation, and innovation. By purchasing renewable energy or alternative raw materials, Group Procurement contributes to realizing Covestro's vision of becoming fully circular. In addition, the corporate Group Procurement function promotes the digitalization of purchasing processes and systems in the interest of improving the efficiency and effectiveness of the procurement process for Covestro and its suppliers.

 See "Sustainability in the Supply Chain."

In fiscal 2021, goods and services were procured from some 13,000 suppliers (previous year: some 13,000) in 66 countries (previous year: 67) for €11.3 billion (previous year: €7.9 billion).* Distribution of purchasing volumes was balanced across the regions.

The most important raw materials for our products are petrochemical substances such as phenol, benzene, propylene/propylene oxide, toluene, and acetone – which collectively account for 35%* of our purchasing value (previous year: 33%). Moreover, the operation of our production facilities requires large amounts of energy, which we primarily procure from external sources in the form of electricity and steam. We endeavor to procure raw materials essential for operations which are difficult for Covestro to obtain from external supply sources from within the Group or through joint ventures. To name just two examples: Covestro produces part of its chlorine in-house and procures propylene oxide through a joint venture. Operations, logistics, and investment projects require technical goods and services in addition to raw materials and energy. These activities are consolidated by the corporate Group Procurement and Supply Chain & Logistics functions to generate a contribution in line with the Group's strategy. We also regularly monitor the sustainability and quality of our suppliers and ensure that they comply with internal and external standards.

* Due to the still ongoing systems integration of the acquired RFM business, the RFM-related purchasing volumes were only partially included for fiscal 2021.

Production Sites and R&D Facilities

Covestro operates production sites and research and development (R&D) facilities for various product groups throughout the world. The following chart shows the geographical distribution of Covestro's 50 production sites and 10 R&D facilities in the EMLA, NA, and APAC regions.

Covestro's production sites and R&D facilities



NA ¹	EMLA ²	APAC ³
Mexico Santa Clara	Belgium Antwerp	China Shanghai
United States Baytown	France Fos-sur-Mer	Japan Niihama
New Martinsville	Romans-sur-Isère	Guangzhou
Newark	Germany Brunsbüttel	Kunshan
South Charleston	Dormagen	Qingdao
Augusta	Krefeld-Uerdingen	Shenzhen
Channelview	Leverkusen	Shunde (Foshan)
East Providence	Borlitz	Tianjin
Elgin	Markt Elbert	Greater Noida
Frankfort	Meppen	India
Pittsburgh		Ankleswar
South Deerfield		Cuddalore
Wilmington		Greater Noida
		Taiwan, Greater China
		Changhua
		Linyuan
		Pingtung
		Taoyuan City
		Zhengbin
		Thailand
		Map Ta Phut

SITES & FACILITIES: ◊ Main production sites ● Production site ● R&D facility

SEGMENTS: PM Performance Materials S&S Solutions & Specialties

¹ NA: North America region (Canada, Mexico, United States).

² EMLA: Europe, Middle East, Latin America (excluding Mexico), Africa region.

³ APAC: Asia and Pacific region.

Large-capacity production facilities serve in particular to ensure that customers in the respective regions are supplied reliably and efficiently with the Performance Materials segment's products. Additional plants in selected countries manufacture polyurethane precursors and products for the Solutions & Specialties segment. Moreover, we operate production plants in certain countries for customer-specific compounding of polycarbonate resins.

Thanks to the integration of upstream production stages (backward integration), e.g., in its own production of chlorine, Covestro has continually optimized the value chain. In addition, Covestro has put in place wide-ranging programs and initiatives to achieve and steadily improve performance in the areas of safety, costs, and plant availability.

We invest continuously in our global production network in order to maintain our production facilities and their infrastructure, to optimize manufacturing processes, and to expand capacities in line with market developments. To do so, Covestro relies on advanced and environmentally friendly production processes and continually optimizes its technologies. Key growth projects in the year 2021 included increasing the production capacity for specialties in the EMLA region and expanding compounding capacities in Krefeld-Uerdingen (Germany), Shanghai (China), and Guangzhou (China).

 See "Cash Flows from Investing Activities."

Covestro primarily conducts research and development at three major centers in Germany, the United States, and China. Additional centers in China, in Taiwan (Greater China), in the United States, and in the Netherlands were added with the acquisition of RFM. Customer-oriented applications are generally developed in the relevant regions, while global, fundamental research and technology development are mainly conducted in Germany. We also operate an R&D facility in Japan, which concentrates on the Japanese market. Our global presence allows us to respond to regional trends and customer requirements in the best possible ways.

 See "Innovation."

Marketing and Sales

Industry-specific marketing and sales teams are responsible for developing potential business with prospective and existing customers and continually analyzing markets and trends. Each business entity markets and distributes its own products through its own sales organization as well as through trading houses and local distributors. Major customers with global operations are an exception to this, as these are serviced directly by our key account managers. Marketing is conducted in close cooperation between marketing, sales, and application development teams. Marketing activities at Covestro are comprehensively managed by the business entities.

In recent fiscal years, selected business entities transferred their sales activities in part to the Covestro Direct Store, our digital sales channel. In fiscal 2021, more than 13,000 transactions with a total value in the mid- to upper three-digit million euro range were completed via this digital platform. The number of transactions grew by around 60% over the prior-year period while the corresponding revenue doubled. Besides selling products through the Covestro Direct Store, the company is also working on placing a selection of products on third-party digital sales platforms to align our range of products even more closely with our customers' needs and to give them a completely digital customer experience. To this end, we developed a Group-wide initiative called Customer Centricity in fiscal 2020 to put customers at the forefront of every employee's day-to-day responsibilities. Regardless of the impact of the coronavirus pandemic, our focus is still on continuing to implement our digitalization strategy for our marketing activities. The goals of the strategy are to provide our customers with even more effective and customized information, and to communicate with them more directly and holistically. To achieve this, the initial digital showroom concept was expanded into digital event platforms. We also boost the idea of connecting the dots in our marketing activities, i.e., integrating all relevant processes, systems, and therefore data flows. Big Data in relation to customer, market, and business consolidation and the associated provision and analysis of information are also becoming increasingly important for us.

The corporate Supply Chain & Logistics function in the EMLA, NA, and APAC regions is mainly responsible for customer service activities and the efficient fulfillment of customer orders. It is tasked with the entire process – from receiving orders through plant logistics and shipping to invoicing and handling complaints. Customer-oriented support in the individual regions allows us to process orders especially quickly and seamlessly. Covestro makes use of channels such as e-commerce platforms for receiving and processing orders. Our customers can place orders and check the status of their orders at any time in the Order@Covestro self-service portal. However, Order@Covestro is not used to initiate new business: Instead, the portal complements the services we provide our existing customers and helps us handle routine inquiries during times outside our customer service and sales staff's business hours.

The transportation of our products to customers is handled by logistics service providers who are selected and evaluated according to stringent safety, environmental, and quality criteria. Alongside the protection of people and the environment, delivery reliability is particularly important to us. The preferred mode of transportation is rail or intermodal – a combination of different modes of transportation. When selecting the mode of transportation, we also consider resource efficiency and seek to reduce associated carbon emissions in particular. Whenever permitted by transportation times and delivery reliability, we supply customers from close-to-production warehouses. In the case of longer distances and depending on the reliability of the mode of transportation, our products are temporarily stored in regional distribution centers and then dispatched from there in order to shorten delivery times. We also participate in the RH2INE industry initiative as part of our corporate commitment to reducing our carbon emissions. This initiative aims to deploy fuel-cell-powered vessels on the Rhine River starting in the year 2024. Building on RH2INE, Covestro is a key player in initiating another fuel cell project whose goal is to accelerate the development and use of fuel cells in cargo trucks.

 See "Sustainability in the Supply Chain."

We measure customer satisfaction using the Net Promoter Score (NPS), a metric that reflects customer willingness to recommend Covestro, to ensure that customer feedback is incorporated to a greater degree in our internal decision-making processes. We conduct systematic customer satisfaction surveys for this purpose each year. In addition, our foremost quality goal is to eliminate errors in all our processes to guarantee a high level of customer satisfaction. This information is regularly collected throughout the world and analyzed in a global management system, taking into account customer satisfaction analyses and supplier assessments, which measure the performance of Covestro's suppliers. We use this data to derive corrective and preventive measures for the purpose of continually increasing quality and customer satisfaction and further lowering the error rate and the incidence of complaints. In the reporting year, we received 5.13 customer complaints per 1,000 deliveries.

Strategy

Purpose and Vision

Advancing climate change, the growing global population, increasing urbanization, and new forms of mobility are enormous global challenges. Covestro faces these challenges, thus bringing together economic success and sustainability. The goal is to realize Covestro's purpose: "to make the world a brighter place."

Our aim is to provide solutions to global challenges with our high-performance polymer materials. In pursuing it, we rely on technologies that reduce energy usage and emissions in our production processes. The products and solutions we develop are replacing traditional materials such as glass and metal, which are manufactured less sustainably or have a less sustainable life cycle. We are convinced that our long-term strategy of pursuing a circular economy will bring us closer to achieving our purpose.

Building on our purpose, the implementation of our vision is the foundation of our Group strategy: We will be fully circular. This vision sets a clear direction for our company's future development.

Purpose, vision, and strategy



Our corporate values and corporate culture as embodied by our employees are major factors in putting our purpose, vision, and strategy into action.

See "Corporate Values and Corporate Culture."

Group Strategy

Strategic Goals and Activities

Our overarching goals derived from our purpose and our vision set the course for our Group's Sustainable Future strategy. This incorporates the changing external and internal dynamics, such as shifts in climate policy, in markets, and in digital transformation, and reflects the new influence of our vision. Our Group strategy comprises three strategic chapters: We want to "Become the best of who we are," while we "Drive sustainable growth," and "Become fully circular." Our strategy is based on a solid foundation; its implementation is being enabled by the acceleration of Covestro's digital transformation and expansion of our "We Are 1" culture.

The Group's Sustainable Future strategy



"Become the Best of Who We Are"

"Become the best of who we are" is the first strategic chapter to transform our company in the best possible way to exploit its full potential, thus creating the basis for sustainable and profitable growth. The first strategic chapter is driven by a clear understanding of our business: We deliver a broad portfolio of standard and specialty products and, at the same time, stand out with our strong innovation, research, and development capability. We want to focus even more on the factors that make our core business a success.

Our customers are our top priority in this process. We optimize processes that make our customers successful, improve workflows within our organization, and concentrate entirely on the needs of our customers. Depending on each customer's focus, we deliver high-quality standard products fast, or assist our customers with our technical expertise in improving or developing (specialty) products.

Last year, we launched the LEAP global transformation program to implement the first strategic chapter. This program realigns structures, processes, and control mechanisms to position our company to the best extent possible. The measures under the transformation program began in fiscal 2021 and implementation will be completed by the end of the year 2023. As of July 1, 2021, we restructured our organization, workflows, and responsibilities. This includes structuring our business into standard products on the one hand and specialty products on the other. Furthermore, the program aims to bundle central aspects of certain areas of competence across the company, with the primary objective of profitably furthering our business with a view to sustainability and the circular economy.

Another important core element of the first strategic chapter is the Customer Centricity concept, with which we intend to focus even more on the needs of our customers. At Covestro, Customer Centricity is based on three pillars:

- Knowing the Customer: We need to know our customers so well that we understand exactly what added value we can provide for their business activities.
- Thinking Customer First: Every single function in our organization must be focused on what our customers need.
- Co-Creating Customer Value: We must join forces with our customers to create added-value in the marketplace.

"Drive Sustainable Growth"

"Driving sustainable growth" – and therefore bringing together sustainability and economic success – is part of the second strategic chapter of our Group strategy. To ensure that our portfolio is fit for the future, we intend to invest in market segments that are attractive and sustainable for the long term. In the future, we will orient all activities that promote organic and inorganic growth, i.e., investments, acquisitions, research and development (R&D) activities, and our strategic venture capital initiative (Covestro Venture Capital, COVeC), even more strongly toward sustainability.

 See "Strategic Partnerships and Collaborations."

The most important elements for driving this development include managing and steering the product portfolio toward greater sustainability and circularity. Covestro is building a future-proof, innovative, and sustainable product portfolio using the Product Sustainability Assessment (PSA) based on the methodology developed by the World Business Council for Sustainable Development (WBCSD). This process entails identifying changes in the regulatory and market environment early on with the help of the PSA and considering these as part of the decision-making processes and the Group's strategy. Covestro conducted a pilot project for this purpose in the reporting year and is currently reviewing the PSA methodology, for example, to integrate circularity into the system. The majority of our new products are already aligned with the United Nations Sustainable Development Goals (SDGs). In the interest of accelerating the development of our circular product portfolio, we decided in the reporting year to allocate a significant portion of our investment budget to projects in this area in the future. We plan to devote up to €1 billion of our capital expenditure over the next 10 years to projects promoting a circular economy.

In order to generate value with the capital invested, we are analyzing and managing our investment portfolio according to profitability and sustainability criteria. We support investment projects with a return on capital employed (ROCE) above certain thresholds that generate the lowest possible greenhouse gas emissions or even bring about a reduction.

 See "Management" and "Long-Term Variable Compensation."

We plan to build plants faster and more cost-effectively in future to increase the efficient use of our investment capital without sacrificing the reliability or safety of our facilities. For this reason, we will expand our global network of partners specializing in plant construction, equipment, and services; optimize in-house processes and the use of resources; and increasingly apply a blueprint approach – i.e., we want to use completed construction projects as a template for future projects.

With the acquisition of the Resins & Functional Materials (RFM) business of Koninklijke DSM N.V., Heerlen (Netherlands), in fiscal 2021, Covestro is expanding its sustainable business units to implement its long-term strategy. The acquisition and integration of RFM makes Covestro one of the world's leading suppliers of sustainable coating resins.

 See note 5.2 "Acquisitions and Divestitures" in the Notes to the Consolidated Financial Statements.

"Become Fully Circular"

The third strategic chapter comprises measures to allow Covestro to "become fully circular." As part of that, we intend to accelerate transformation to a climate-neutral and resource-conserving economy. We see this orientation as an opportunity for Covestro to add solutions to global challenges – our circular products – along the entire value chain. Implementation of the third strategic chapter, and thus our vision, is driven by our global strategy program "Circular Economy." This program has consolidated and driven the implementation of circular economy activities at Covestro in a comprehensive global structure since fiscal 2019. In addition to management of the implementation of activities aimed at achieving a circular economy, the program covers strategic issues such as alternative raw materials, marketing products based on these raw materials, and using recycling to develop sources for raw materials. Moreover, Covestro launched a global climate program in the reporting year, which aims to coordinate the transformation of production facilities to achieve climate neutrality.

Limited natural resources and advancing climate change are two key arguments for driving circular economy. Our activities aim to close material and carbon loops, and thus achieve climate neutrality and reduce the use of resources in the company itself, and in upstream and downstream stages of the value chain. Our goal is clear: In the future, we want to produce 100% of our products from alternative raw materials. Eventually, we aim to produce polymers without using fossil-based raw materials like crude oil. By realigning our production processes, we will be able to use raw materials, for example, derived from sustainable biomass, CO₂ or recycled materials, or obtained using green hydrogen from electrolysis. In the reporting year, we purchased circular raw materials totaling over 20,000 t and incorporated them into our production processes.

Completely climate-neutral production processes also require a rigorous stepwise transition of the electricity supply to renewable energies at competitive prices while maintaining a secure supply. In the future, we aim to obtain 100% of the electricity required by all of our sites from renewable sources of energy. We are pursuing this goal by arranging long-term supply contracts for electricity from renewable energy sources, such as the one at our Antwerp (Belgium) site.

We also want to drive the circular economy by developing and using innovative recycling options. In this context, we consider chemical recycling particularly promising as an effective tool for reclaiming considerable quantities of feedstocks for reuse. It is suitable primarily for materials and waste that cannot be mechanically recycled due to their properties or when the recycling process must produce like-new materials.

We are aware that shifting our production activities and our product portfolio to circular economy is a major, long-term undertaking that we cannot accomplish alone. For this reason, we will increasingly work on establishing collaborative partnerships and networks with our customers, suppliers, research institutes, and other solution providers throughout the value cycle.

 [For more information on our activities, see "Circular Economy."](#)

Digitalization and Corporate Culture

Our Sustainable Future strategy rests on a solid foundation, with digitalization and our "We Are 1" corporate culture as key elements. We are focused on tackling digital transformation and the associated opportunities by implementing an extensive range of measures along the entire value chain, in the corporate functions, and at all points of contact with our customers. This involves Covestro promoting the use of digital technologies and leveraging the potential of artificial intelligence. At the same time, Covestro encourages an open climate at work that spurs employees to question existing concepts and develop new approaches for our business.

The digital transformation of our business aims to generate competitive advantages for Covestro. This includes expanding our digital R&D activities and collaborations with major corporations such as Google. Insights provided by data science additionally support the divisions in profitably deploying algorithms and machine learning. A team of specialists drive the development and implementation of our digital products and business models.

 [See "Use of Digital Technologies."](#)

We have embedded our "We Are 1" corporate culture firmly in our company to fully leverage internal potential and meet our corporate goals. The key here is our employees who bring this culture to life. We work consistently on developing our culture and simplifying implementation by deriving specific measures from our four cultural dimensions.

 [See "Corporate Values and Corporate Culture."](#)

Segment Strategy

Performance Materials Segment Strategy

The Performance Materials segment comprises mainly polyurethanes and polycarbonates product groups. The segment's standardized products are sold to outside customers and used by the Solutions & Specialties segment. The Performance Materials segment exclusively manufactures standardized products, aiming mainly to increase efficiency through cost management as well as process innovations.

In the years to come, demand for polyurethanes is expected to grow sharply. We manufacture the required precursors for flexible and rigid foams. Strategically important sectors include the construction industry and the furniture industry, where we already occupy a strong position. We intend to grow with the market in both industries. Worldwide efforts toward meeting the SDGs are also reflected in the short- and long-term demand for our products. For instance, growing calls for energy-efficient living space are expected to increase long-term demand for particularly effective insulation solutions in the construction industry.

The market for standardized polycarbonates is anticipated to grow only minimally in the coming years because of a lack of impetus for increased demand from sectors such as the construction and consumer goods industries. In the future, the majority of our polycarbonate volume will be passed on to the Solutions & Specialties segment for further processing and sale in high-growth markets.

The Performance Materials segment is home to most of our production facilities, and as such, is key to implementing our circularity strategy. The focus here is on steps such as continually optimizing our production facilities, procuring alternative raw materials, and developing sustainable product solutions, e.g., for diphenylmethane diisocyanate (MDI) and toluylene diisocyanate (TDI). The use of alternative raw materials enables us to produce these diisocyanates with a smaller carbon footprint, which is demonstrated and certified by way of mass balancing and the ISCC PLUS certification for end products.

Many of the precursors produced by the Performance Materials segment are further processed in the Solutions & Specialties segment or sold with additional, customer-focused services. Intersegment transactions are conducted at arm's length and reported separately as intersegment sales.

Solutions & Specialties Segment Strategy

The Solutions & Specialties segment covers a broad range of specialty products and customer-specific solutions in the following business entities: specialty polycarbonates (Engineering Plastics), precursors for coatings and adhesives (Coatings & Adhesives), polyurethane specialties and solutions (Tailored Urethanes), Thermoplastic Polyurethane, high-quality films (Specialty Films), and specialty elastomers (Elastomers). Covestro projects above-average growth in this area, above all in the Engineering Plastics and Specialty Films business entities.

We continually update our product portfolio to generate further growth in the Solutions & Specialties segment with a particular focus on sophisticated solutions for which there is strong demand in promising applications. These include smart homes, medical technology, holography, and materials for electric vehicles and wind turbines.

The continual development of innovative products and applications with significant customer benefit is therefore a core element of the segment's strategy. Other crucial factors for the success of our growth strategy in this segment are the respect and appreciation of our customers for our strong technological competence, standing apart from the competition based on our global leadership in consulting on application technology and carrying out complicated projects for customers, our expertise in chemical formulations and compounding, the efficient expansion of our capacities, customer-focused product development, and the continual improvement of our customer-centric pull supply chain.

Management

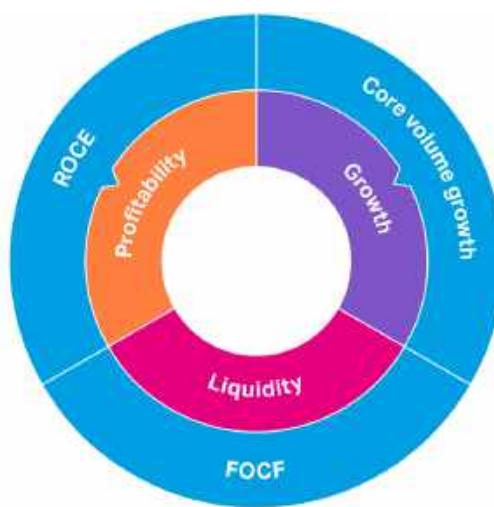
Management System

Covestro's management system is oriented toward long-term, profitable growth and continuous value creation. The Board of Management is the main decision-maker responsible for our global business and approving the planning derived from our Group strategy. In order to plan, manage, and monitor the development of our business, we use key management indicators which enable the Group's business performance to be evaluated in a comprehensive and holistic manner. In addition, the Board of Management uses defined sustainability goals and selected nonfinancial performance indicators to govern the Group's sustainable orientation.

Key Management Indicators

The Covestro Group assessed its business performance using indicators in the areas of growth, liquidity, and profitability in the fiscal year under review.

Key management indicators



Return on capital employed (ROCE) is the key management indicator used to assess the profitability of the Covestro Group, measuring the return the company achieves on the capital it uses (capital employed). ROCE is calculated as the ratio of net operating profit after taxes* (NOPAT) to average capital employed. If ROCE exceeds the weighted average cost of capital (WACC), i.e., the minimum return expected by equity and debt capital providers, the company has created value. ROCE is calculated annually at the end of each fiscal year.

Calculation of the return on capital employed

$$\text{NOPAT} \quad \div \quad \text{Avg. capital employed} \quad = \quad \text{ROCE}$$

The ability to generate a cash surplus is measured by the free operating cash flow (FOCF). FOCF is an indicator of the company's liquidity and ability to finance its activities. It corresponds to cash flows from operating activities less cash outflows for additions to property, plant and equipment and intangible assets. A positive FOCF serves to pay dividends and interest and to repay debt.

* The imputed income taxes are determined by multiplying the effective tax rate by the operating result (earnings before interest and taxes, EBIT).

The growth of the Covestro Group is measured in terms of the development of core volume growth*. Unlike sales, this core volume growth key management indicator is influenced only indirectly by changes in raw material prices or currency effects.

The key management indicators are also used in Covestro's Group-wide bonus system (Covestro Profit Sharing Plan), which is applicable uniformly to all staff from the Board of Management members to employees under collective bargaining agreements. The three areas of profitability, liquidity, and growth each account for one-third of the final assessment and bonus calculation formula. As a result, all employees whose personal efforts contribute to Covestro's overall positive performance can share in the company's success.

 See "Overall Assessment of Business Performance and Target Attainment" and "Short-Term Variable Compensation."

From the year 2022 onward, greenhouse gas (GHG) emissions will be comprehensively integrated into the management system. In the reporting year, an additional change was approved that stipulates incorporating environmental, social, and governance (ESG) criteria into the short-term compensation system (Covestro Profit Sharing Plan, Covestro PSP) for the Board of Management and all employees. Earnings before interest, taxes, depreciation and amortization (EBITDA) will also replace core volume growth as a key management indicator. In the future, Covestro's management system will be made up of four components: growth measured as EBITDA, liquidity measured as FOCF, profitability measured as ROCE above the weighted average cost of capital (WACC), and sustainability measured in terms of selected ESG criteria. In the year 2022, the sustainability component will be determined by direct and indirect GHG emissions (Scope 1 and 2).

 See "Scope 1 and Scope 2 GHG Emissions" and "Long-Term Variable Compensation."

Other Relevant Indicators

Throughout its financial reporting, Covestro uses further indicators such as EBITDA, capital employed, and the absolute value contribution in addition to the key management indicators to assess the business performance of the Group.

EBIT and EBITDA

EBIT, which corresponds to income after income taxes plus financial result and income taxes, allows us to assess income without the influence of the income-dependent tax liability and/or various financing activities. EBITDA is used to assess the operating profitability of Covestro and its reportable segments during the year. EBITDA is EBIT plus amortization and impairment losses on intangible assets, and depreciation and impairment losses on property, plant and equipment, less impairment loss reversals. As a result, EBITDA is adjusted for possible distortions arising from various depreciation/amortization methods and measurement options, and therefore represents earnings from operating business activities.

 See "EBIT" and "EBITDA."

Capital Employed

Capital employed, which is relevant to the calculation of ROCE, is the interest-bearing capital required by the company for its operations. It is calculated from operating noncurrent and current assets less non-interest-bearing liabilities. Non-interest-bearing liabilities include, for example, trade accounts payable and current provisions. The average capital employed is determined using the capital employed at the beginning and end of the relevant period.

 See "Return on Capital Employed (ROCE) and Value Contribution."

* Core volume growth refers to the core products in the Performance Materials and Solutions & Specialties segments. It is calculated as the percentage change in externally sold volumes compared with the prior year. Covestro also takes advantage of business opportunities outside its core business, for example the sale of precursors and by-products such as hydrochloric acid, sodium hydroxide solution, and styrene. Such transactions are not included in core volume growth.

Weighted Average Cost of Capital (WACC)

The weighted average cost of capital (WACC) is relevant to the calculation of the absolute value contribution and reflects the expected return on the entire company's capital comprising both equity and debt. The cost of equity factors used in WACC is calculated by adding the risk-free interest rate to the risk premium for an equity investment. Covestro uses the returns on long-term German government bonds as the risk-free interest rate. We derive this risk premium from capital market information for comparable listed companies. The cost of debt factors is calculated by adding the risk-free interest rate to a risk premium on debt capital that Covestro calculates using the financing costs of comparable companies, and subtracting the tax benefit of interest incurred on borrowed capital. Calculation of the cost of capital generally has a long-term perspective; short-term fluctuations are evened out.

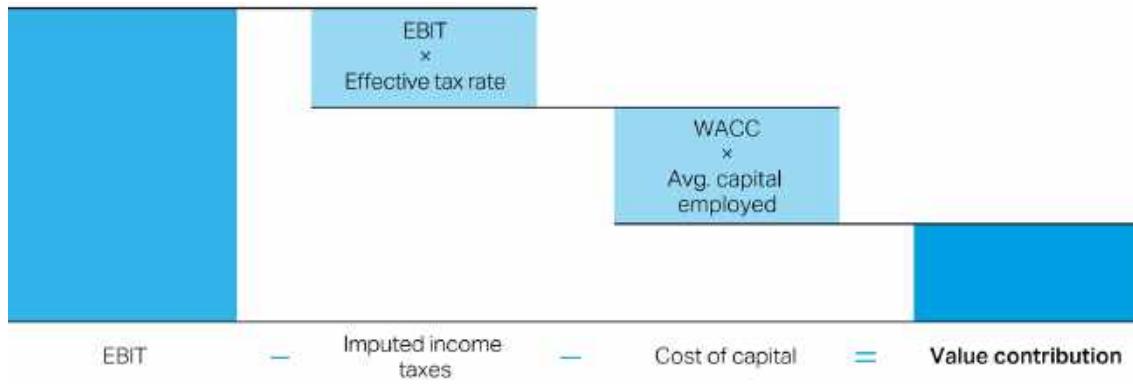
 See "Return on Capital Employed (ROCE) and Value Contribution."

Value Contribution

Covestro aims to steadily increase enterprise value. Value is generated if Group earnings exceed the cost of capital. The absolute value contribution is the difference between NOPAT and the cost of capital. The latter is calculated by multiplying the average capital employed by WACC. A positive value contribution means that value has been generated.

 See "Return on Capital Employed (ROCE) and Value Contribution."

Calculation of the value contribution



Net Financial Debt

Net financial debt is used to assess the financial position and financing requirements. It equals the sum of all financial liabilities less cash and cash equivalents, current financial assets, and receivables from financial derivatives.

 See "Cash Flows from Financing Activities."

Corporate Policies

We have laid down important basic principles for our actions in six policies applicable throughout the Group. The text of these guidelines is publicly available. They provide our employees with guidance, including in the areas of value creation; sustainability; innovation; employees; health, safety, environment, energy, and quality (HSEQ); and compliance. The standards outlined in these policies must be adhered to by all employees worldwide. Additional details are provided in directives. Local instructions are used to implement the directives in the country subsidiaries. Compliance with the directives and local instructions is verified using internal audits and other measures. In addition, issues and action plans as well as target attainment are monitored in a management review.

 Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

[Supplementary information >](#)

Corporate Policies

Value Creation

Covestro's primary objective is to turn its development activities and products into solutions that create value for customers, society, the environment, employees, and investors. We accomplish this, for instance, by manufacturing products with superior properties, environmental performance, usability, and cost effectiveness. At the same time, Covestro aims to make the life cycle of products as resource-efficient as possible to extract the greatest possible value from the resources used in them.

Sustainability

We want to bring economic success into alignment with environmental and societal goals. Doing business in this way conforms to Covestro's purpose: "to make the world a brighter place." In making decisions and taking actions, we therefore consider the three dimensions of sustainability – people, planet, profit – equally, while adhering to the principle of avoiding a negative impact on any of them. Our Sustainability Policy underscores this intention. Special committees at Covestro are responsible for defining and managing important sustainability topics. These include the development and implementation of targets and packages of measures

 See "Sustainability."

Innovation

Innovation is an essential factor in mastering the challenges of a changing world, remaining competitive, and creating value for the long term – inspired by and consistent with sustainability. Accordingly, we continually develop new products, processes, applications, and technologies that offer new perspectives. It is particularly important to us that innovation be an issue of personal concern to each and every Covestro employee.

 See "Innovation."

Employees

Covestro's success is based on the outstanding skills and strong commitment of its employees. We therefore offer our employees a good and safe working environment and promote their professional and personal development. Covestro values a corporate culture that is curious, courageous, and colorful, and enables employees to successfully contribute their talents to the company. The core competencies and management skills that guide our employees' further development are also oriented to these values.

 See "Employees."

Health, Safety, Environment, Energy, and Quality (HSEQ)

Health, safety, environment, energy, and quality are vitally important for achieving our goals. We set high standards and continually work toward improving our performance. This is the main objective of our integrated HSEQ management system, which ensures the implementation of the specifications in our HSEQ Group Regulation in orientation to or conformity with the internationally recognized standards ISO 45001, ISO 9001, ISO 14001, and ISO 50001.

 See "Integrated Management System for Health, Safety, Environment, Energy, and Quality."

Compliance

Covestro's corporate governance is characterized by a strong sense of responsibility as well as adherence to ethical principles. This includes strict compliance with all statutory requirements and Covestro's voluntary commitments, which are anchored in our internal regulations and are applicable to all employees worldwide.

 See "Compliance."

Corporate Commitments

As a company committed to operating sustainably, we take a clear stand on relevant issues. Like our guidelines, the text of these corporate commitments is publicly available. The minimum standards applicable to such efforts are stipulated in our voluntary corporate commitments. Compliance with them is governed by the corresponding directives, which are valid throughout the Group. At present, Covestro has entered into voluntary commitments on the following: the UN Sustainable Development Goals, the Ten Principles of the UN Global Compact, Responsible Care™, human rights, slavery and human trafficking (UK Modern Slavery Act Statement), water, product stewardship, corporate compliance, responsible lobbying, responsible marketing and sales, tax transparency, and conflict minerals. In terms of lobbying in particular, we have laid down clear and binding rules for our engagement in the political arena. The voluntary commitment and a more comprehensive directive are applicable Group-wide and build on transparency and openness in the interaction with representatives of political institutions. In addition, Covestro has voluntarily joined the European transparency register in addition to publicly publishing its voluntary commitment. Covestro does not make any donations as a company to political parties, politicians, or candidates for a political office. The associations in which Covestro is a member make donations under their own responsibility and according to the respective relevant legislation, in particular taking account of laws related to donations to political parties.

 Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

[< Supplementary information](#)

Integrated Management System for Health, Safety, Environment, Energy, and Quality

Covestro's stated aims are to take preventive measures to protect employees, suppliers, and service providers; ensure uninterrupted operations; and continually improve quality. The Board of Management has tasked the management of the corporate Group Health, Safety and Environment (HSE) function with this responsibility directly. The integrated system implemented throughout the Group ensures that the requirements of the corporate health, safety, environment, energy, and quality (HSEQ) regulations are carried out. It is based on internationally recognized standards governing occupational health and safety (ISO 45001), the environment (ISO 14001), energy (ISO 50001), and quality (ISO 9001).

Adherence to processes and workflows is verified through regularly conducted internal audits, annual self-assessments, and external certifications. The insights we gain from these measures are incorporated into our annual management review. Every process is thus subject to ongoing monitoring and is updated as required.

Our existing HSEQ management system corresponds to the requirements of the current ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018 standards. In fiscal 2021, based on these ISO standards, it was also successfully reviewed, audited, and had its certification upheld by an external certification body. Specific targets in line with the aforementioned ISO standards have been defined.

The acquisition of Resins & Functional Materials (RFM) resulted in new sites being added to the Covestro Group. Covestro's regulations will be applied to the new sites gradually, since different HSEQ guidelines and standards have applied to some of these locations in the past. This process will take some time and will run into the year 2022 or even beyond in specific cases. However, reporting on the relevant nonfinancial HSEQ statements has been harmonized, so all RFM sites have been fully integrated into the reporting as of April 1, 2021.

 See "Health and Safety" and "Environmental Impact of Own Operations" for additional details on the aforementioned targets.

The corporate HSE function is responsible for the integrated HSEQ management system, which comprises the following three elements:

Health and Safety

In the area of occupational health and safety, globally applicable processes and workflows include detailed rules governing the safety of production facilities and manufacturing processes, the investigation of accidents and environmental as well as transportation incidents, health care and occupational safety, and emergency management at Covestro. The rules stipulated by international standards such as ISO 45001 comprise the minimum requirements applicable worldwide and are supplemented with additional regulations if needed. They are intended to prevent work-related health impacts and accidents and incidents at the workplace or on transportation routes that could have adverse consequences for people or the environment. In addition, we offer support to our customers, for example by providing training on the safe handling of our products in and outside of our facilities. We increasingly rely on the support of third-party databases to help us identify, review, and update our compliance with mandatory legal and other requirements.

 See "Health and Safety."

Environment and Energy

Minimum environmental and energy standards applicable worldwide were specified to ensure that our high standards for resource conservation and emissions reduction are met. These requirements are based on internationally recognized standards and rules such as ISO 14001 (environmental management) and ISO 50001 (energy management). Each year we analyze and evaluate the effects of our activities on the environment. From our environmental performance assessment, we derive measures to reduce and minimize environmental impacts. Global process and workflow descriptions help us implement these measures throughout the Group. In the reporting year the energy efficiency system at the major German production facilities introduced in the 2008 fiscal year was reviewed and audited by an independent certification body, and its certification to ISO 50001 upheld.

Quality

We have very high expectations of the raw material quality we use, and we set ourselves standards for their processing into high-performance plastics and polyurethane precursors. Within the framework of our integrated HSEQ management system, our quality management activities meet the requirements of the current ISO 9001:2015 standard. Thanks to our quality management system, we can put in place the conditions necessary for incorporating our customers' requirements and their satisfaction into our products and services.

[Supplementary information >](#)

Audits and Certifications

Our binding Group regulations that serve to achieve HSEQ goals are available to all employees in the Group's in-house databases and are reviewed annually using internal audits and external certification companies. This may require the management system to be adjusted. Our business activities are covered by certified HSEQ management systems to the degree outlined below:

Certification of HSEQ management systems according to external standards¹

	2020	2021
Certified according to various quality management standards such as ISO 9001	100%	100%
ISO 14001 certified/EMAS validated (environment)	96%	95%
ISO 45001 (formerly OHSAS 18001) certified (occupational safety)	89%	87%
ISO 50001 certified (energy)	46%	48%

¹ In % of business activity, measured according to energy usage.

[< Supplementary information](#)

Sustainability

As a company, Covestro is fully committed to sustainability. This is stated clearly in our purpose "to make the world a brighter place" as well as underscored by our vision and our Group strategy with the strategic chapters which state our intention to "Drive sustainable growth" and "Become fully circular." We set ambitious sustainability targets as early as fiscal 2016. We started including sustainability criteria in our long-term variable compensation system for Covestro's Board of Management and executives as of the reporting period. Starting in fiscal 2022, these and other sustainability criteria will be applicable to not only the Board of Management but to all employees as part of the short-term variable compensation system.

 See "Key Management Indicators," "Long-Term Variable Compensation," and "Covestro's Sustainability Targets."

We integrate sustainability into our business activities, while at the same time ensuring adequate focus on the issues of greatest relevance to us and our stakeholders. In addition to our responsibility for the environment, we also want to fulfill our social responsibility within society in accordance with our purpose. This is why we strive to add value at the social, environmental, and economic levels. Our decisions and our actions take into account the three dimensions of sustainability: people, planet, and profit (PPP). We are oriented toward a positive impact on at least two of the dimensions, while at the same time ensuring the third one is not negatively impacted. Every decision, every action we take, and the resulting consequences are considered holistically, that is, throughout the entire value cycle.

Sustainability formula



United Nations Sustainable Development Goals (SDGs)

Against this backdrop, the United Nations Sustainable Development Goals (SDGs) are critically important to us as a guideline for improving living conditions worldwide. The SDGs serve primarily as a source of direction and inspiration for innovation and as indicators for the future positioning of the company.

 Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

Covestro already makes positive contributions to all 17 SDGs and many sub-goals. The majority of these relate to products in our core business that, for example, help conserve large amounts of energy during their use phase or are used in other sustainable applications. Additional contributions stem from our own production activities, workflows, and business practices, from our social engagement, and from solutions for underserved markets (the inclusive business segment). In addition to evaluating the positive contributions to the SDGs that Covestro is already making, we believe that any analysis of SDGs must also aim to identify potential additional requirements that Covestro could face. By this, we mean topics that, from the perspective of stakeholders, could potentially be seen as having a negative impact on individual SDGs if there was any inactivity or neglect.

We are aligning our research and development (R&D) portfolio to the SDGs to increase our contributions further.

[Supplementary information >](#)

Covestro's contributions to the SDGs

	AREAS OF ACTIVITY ¹				
	R&D projects ²	Core business products	Production, workflows, business practices	Inclusive business	Social engagement
1	No Poverty	●	●	●	● ●
2	Zero Hunger	●	●	● ●	● ●
3	Good Health and Well-Being	● ● ●	● ●	●	●
4	Quality Education		●	●	● ● ●
5	Gender Equality		● ●	●	● ●
6	Clean Water and Sanitation	●	●	● ● ●	● ●
7	Affordable and Clean Energy	● ●	● ● ●	●	● ●
8	Decent Work and Economic Growth	● ● ●	● ●	●	● ●
9	Industry, Innovation and Infrastructure	● ●	● ●	● ●	● ●
10	Reduced Inequalities	●		●	●
11	Sustainable Cities and Communities	● ●	● ●	● ●	●
12	Responsible Consumption and Production	● ● ●	● ● ●	● ●	●
13	Climate Action	● ● ●	● ●	●	●
14	Life Below Water	●		●	
15	Life on Land	●		●	
16	Peace, Justice and Strong Institutions		●	●	
17	Partnerships for the Goals	●	● ●	● ● ●	● ● ●

● Low ● ● Medium ● ● ● High

Covestro internal study from the year 2017; R&D projects, production, workflows, business practices, and inclusive business activities updated in the year under review (abridged process)

¹ The impact of the contributions is comparable within individual areas of activity.

² Evaluation of R&D projects by project budget and estimated SDG contribution.

[< Supplementary information](#)

Material Sustainability Topics

We identify material sustainability topics to create a foundation for Covestro's worldwide sustainability efforts and provide focal points for our sustainability management activities. Detailed information for specific targets, measures, and management approaches for the respective material sustainability topics is provided in the relevant chapters of the Group's Management Report.

Regularly conducted materiality assessments help us to identify and prioritize the sustainability topics most important to the company. We perform both full materiality assessments every three to four years and annual reviews, an abridged process with reduced scope and effort. The most recent comprehensive materiality assessment was conducted in the 2020 fiscal year. In all other years, such as the reporting year, we review all material topics and modify them as necessary in line with the latest developments. We complete a thorough process every three to four years to identify the material sustainability issues and compile an extensive list of topics from internal and external sources. These are assessed based on their relevance to Covestro, taking into account the feedback and opinions of internal and external stakeholders. To identify the material sustainability topics for Covestro, we apply the three dimensions of materiality: "business relevance," "stakeholder relevance," and "impact of Covestro's activities on the respective sustainability aspects." The topics are subsequently combined into thematic areas and assigned to four categories – Innovate, Manage, Observe, and Acknowledge – to reflect the need for different actions depending on the management approach in each case. The material topics and their assignment to the categories are reviewed and acknowledged annually by the head of the corporate Sustainability & Public Affairs function (Chief Sustainability Officer, CSO) and the Board of Management.

In the reporting year, the annual review was conducted by a group of employees from the corporate functions, (including Strategy; Portfolio Development; Investor Relations; Group Health, Safety and Environment), along with Risk Management employees and the topic owners. This group was tasked with responsibilities including bringing in the views of stakeholders from inside and outside the company. The material sustainability topics identified in the 2020 comprehensive analysis were confirmed in the 2021 annual review. No additional or new topics were identified for Covestro as a result of the acquisition of the Resins & Functional Materials business. In the year under review, the Corporate Governance topic was incorporated into the "Responsible business and governance" cluster. "Product stewardship" was assigned to "Sustainable business solutions." Two topics from the previous year were combined into the topic of "Sustainable finance": "Addressing expectations of sustainability-oriented investors" and "Financial instruments linked to sustainable performance." In addition, some designations were modified, but this did not affect the topic definitions.

 See "Nonfinancial Group Statement."

Results of the materiality assessment



Material Sustainability Topics in the "Innovate" Category

The material topics in the "Innovate" category are highly relevant to our business and for stakeholders, and provide opportunities for direct influence by Covestro's business activities on the respective sustainability topics. New management approaches must be defined and established for these topics of future relevance.

The “Circular economy & climate neutrality” cluster has become increasingly important in the public debate and from the business perspective, which is also reflected in our company’s vision and our strategic chapter “We will be fully circular.” Specific action items in our Group’s circular economy strategy program were identified for implementation and approved by the Board of Management. Furthermore, our activities in the areas of “Recyclability & end-of-life solutions,” “Alternative raw materials,” and “New business models” underscore our circular economy ambitions. We devote our expertise in chemical processes to supporting the development of recycling processes for used materials for plastics production. Covestro aims to use “Alternative raw materials” to switch the fossil raw materials we use in production to renewable.

We intend to help achieve climate neutrality by reducing the volume of fossil raw materials employed in production and upstream and downstream links in the value chain. An important way to achieve this is cutting greenhouse gas emissions in our production processes. We have set a goal of decreasing our specific greenhouse gas emissions per metric ton of product by 50% from 2005 levels by the year 2025. In the future, we also aim to obtain 100% of the electricity required by all of our sites from renewable energy sources.

 See “[Covestro’s Sustainability Targets](#)” and “[Circular Economy and Climate Neutrality](#).”

In the year under review, the “Sustainable Business Solutions” cluster was also very significant. We have been aligning our activities, including our innovation efforts, more closely to the SDGs since the year 2017. Covestro’s goal is to devote 80% of its R&D costs by 2025 to projects that contribute to achieving the SDGs. Another important topic is the “Sustainable product portfolio.” We are working on developing a methodology for assessing our product portfolio from a sustainability perspective. This provides key points of reference to “Product stewardship.” We consolidate our “Inclusive business” activities in a program under which we aim to meet needs in what are known as underserved markets.

 See “[Innovation](#),” “[Group Strategy](#),” “[Product Stewardship](#),” and “[Inclusive Business](#).”

The cluster of “People & culture” plays a key role in our sustainability positioning and is a pillar of our Group strategy. Now and in the future, Covestro works to develop innovative solutions to advance issues that affect employees, including our efforts to increase our “Employer attractiveness.” We also advocate for “Diversity, equity, and inclusion.”

 See “[Employees](#).”

Material Sustainability Topics in the “Manage” Category

The material topics in the “Manage” category are also highly relevant to our business and for stakeholders, and provide opportunities for direct influence by Covestro’s business activities on the respective sustainability topics. In contrast to the “Innovate” category, Covestro already applies well-developed management approaches to “Manage” topics, which are continually reviewed and improved when necessary.

The “Environmental impact of own operations” cluster is an integral part of our integrated Health, Safety, Environment, Energy and Quality (HSEQ) management system. In addition, “Air quality,” “Waste,” and “Water & wastewater” are environmental topics integral to our management and business processes. Emissions are recorded and analyzed as part of determining the Group’s environmental impact. We strive to reduce waste streams by disposing of waste by type and implementing economically feasible recycling processes. At Covestro, we view water and wastewater holistically with regard to water usage and quality as well as wastewater volumes and possible plastic waste in the world’s oceans.

 See “[Integrated Management System for Health, Safety, Environment, Energy, and Quality](#)” and “[Environmental Impact of Own Operations](#).”

The cluster of "Health & safety" is also addressed in our integrated HSEQ management system. "Health & safety of our workforce" and "Process & plant safety" are equally important to us. As a chemical company, we bear a special responsibility for the health and safety of our stakeholders. This is why we strive to eliminate workplace incidents and accidents and operate our plants safely to protect people and the environment.

 See "Integrated Management System for Health, Safety, Environment, Energy, and Quality" and "Health and Safety."

Our material sustainability topic review in the reporting year resulted in the "Corporate Governance" topic being included in "Responsible business and governance" cluster. This reflects our view that environmental (E), social (S), and governance (G) aspects are equally important within our material sustainability topics. Moreover, Covestro clusters "Compliance," "Transparency & trust," "Human rights," "Sustainability in sourcing," "Sustainable finance," and "Social engagement" in the "Responsible business and governance" thematic area. "Compliance" and "Transparency & trust" form the foundation of our business practices. Likewise, it goes without saying that we are committed to respecting and safeguarding human rights, another material topic. Our commitment to sustainability also includes our suppliers. Covestro promotes "Sustainability in sourcing" with social, ethical, and environmental standards for existing and new suppliers, with the goal of having 100% of our suppliers with regular purchasing volumes of more than €100,000 comply with our sustainability requirements by 2025.

 See "Compliance," "Human Rights," and "Sustainability in the Supply Chain."

 See "Stakeholder Dialogue."

Our commitment to sustainability extends to finance. The material sustainability topic "Sustainable finance" covers Covestro's sustainability-oriented investors as well as financial instruments linked to sustainable performance. In the first case, we want to increase our attractiveness for investors interested in sustainability, while in the second, financial instruments linked to sustainable performance offer attractive possibilities. Covestro's performance in the relevant strategic sustainability rankings directly influences the cost of these financial instruments and therefore creates incentives for action on sustainability.

 See "Public Recognition" and "Financial Position."

Besides core business activities, "Social engagement" is another way Covestro aims to contribute to sustainable development.

 See "Social Responsibility."

Material Sustainability Topics in the "Observe" Category

In addition to the "Innovate" and "Manage" categories, the "Observe" category highlights topics that may become more important for Covestro in the future.

In the review of material sustainability topics conducted in the reporting year, the "Financial instruments linked to sustainable performance" topic from the previous year was transferred to "Sustainable finance" in the "Manage" category. No material sustainability topic is currently assigned to the "Observe" category.

Material Sustainability Topics in the "Acknowledge" Category

Topics with major social importance are included in the "Acknowledge" category, such as "Biodiversity," a significant issue for our stakeholders. That is why we include the topic in this category. Our commitment to a circular economy, environmental protection, and the associated increase in the use of biobased raw materials will make the topic of biodiversity more and more important for Covestro in the future.

Sustainability Management

Covestro's Sustainability Targets

The company applies a comprehensive approach to sustainability targets, which covers the entire product life cycle, including social, environmental, and economic aspects. Our sustainability targets contribute to achieving the SDGs and reflect the aims of some of our material sustainability topics in the "Innovate" and "Manage" categories. We continually observe developments outside the company and develop our sustainability targets in line with our vision and corporate strategy. In the reporting year, we worked on updating our CO₂ roadmap and our sustainability target for GHG emissions. We are planning to define and publish new target values in the year 2022 and report on details and progress against our sustainability targets in the appropriate sections of the Group's Management Report:

- We want our research and development (R&D) project portfolio to be aligned with the SDGs. By the year 2025, 80% of project expenditures for R&D will take place in areas that contribute to reaching these goals. In the year 2021, 54% of R&D project costs met this target (previous year: 51%).
 See "[Innovation](#)."
- All of our suppliers with regular purchasing volumes of more than €100,000 per year are expected to comply with our sustainability requirements by 2025. During the year 2021, 80% of relevant suppliers met our sustainability requirements (previous year: 79%).
 See "[Sustainability in the Supply Chain](#)."
- Specific greenhouse gas emissions per metric ton of product manufactured are expected to be reduced by 50% from the 2005 benchmark by the year 2025. By the end of fiscal 2021, we achieved a reduction of 53.9% (previous year: 46.2%).
 See "[Climate Neutrality](#)."
- We want 10 million people in underserved markets to benefit from our solutions by the year 2025. The goal is to improve their standard of living primarily through affordable housing, sanitation, and food security. By the end of fiscal 2021, our solutions had already reached 3.2 million people (previous year: 1.1 million people).
 See "[Inclusive Business](#)."
- We intend to create more value and increase our carbon productivity by using fewer carbon-based fossil resources. The goal is to decouple our value-generating activities from these non-renewable and non-circular raw materials. We see our circular economy activities as a key lever for shifting the previously linear use of resources in our business toward circularity and regeneration.
 See "[Circular Economy and Climate Neutrality](#)."

[Supplementary information >](#)

Monitoring

Sustainability is a core element of our Group strategy with an increasing impact on our business activities. Oversight of sustainability at Covestro begins with the highest governing body, the Supervisory Board, whose Sustainability Committee was established in the reporting year; it is dedicated to working on sustainability issues at Covestro. On the Board of Management, the Chair is responsible for the topic of sustainability. The CSO, who is head of the corporate Sustainability & Public Affairs (S&PA) function, reports to the Chair of the Board of Management.

A central governance body for environmental, social, and governance (ESG) issues was set up to ensure continual progress and permanent integration of these topics into all areas of the company. The new ESG Governance Body (ESG GoB) is staffed with top-level executives from the business entities and relevant corporate functions and is responsible for Group-wide sustainability issues, oversees mission-critical projects and activities, and possesses the corresponding decision-making powers. In addition, in-depth discussions are held throughout the Group to identify important issues and trends and to promote the implementation of the sustainability agenda in the corporate functions and business entities. The goal here is to manage sustainability issues consistently and holistically and to accelerate Covestro's sustainability agenda.

Due to the multi-faceted nature of this committee, various corporate functions and business entities are regularly involved, and depending on the topic, additional internal and external guests may be invited to participate. The Chief Executive Officer (CEO) chairs the committee, and the Head of Sustainability is tasked with organization and execution.

Composition of the ESG Governance Body (ESG GoB)



As a corporate function, S&PA defines the sustainability strategy and spearheads general sustainability projects and programs in the company. In addition, S&PA coordinates Covestro's sustainability activities and supports the other corporate functions and business entities in implementing them in operations. Furthermore, it represents Covestro's interests outside the company.

The corporate function was reorganized in the year under review: Central teams responsible for circular economy, climate and energy, sustainable product portfolio management, stakeholder engagement, and social issues are the points of contact with extensive expertise in these topics in the function. The teams are supported by additional regional functions that pursue an integrated sustainability and interest agenda while taking into account regional requirements. The central teams report to the CSO, who is also Head of S&PA corporate function and reports to the CEO.

Stakeholder Dialogue

An open and continuous exchange with our regional, national, and global stakeholders is the foundation for mutual understanding and societal acceptance of Covestro's decisions. At the same time, these discussions provide new inspiration and important recommendations. We have a close and collaborative relationship with our stakeholders. They assess our company not only from a legal standpoint, but also according to whether we do business in a sustainable and ethical manner. In order to identify material sustainability topics, we continually

analyze the interests, expectations, and needs of our major stakeholders and incorporate the results into our materiality analysis, our sustainability agenda, and our opportunity and risk management activities.

 See "Material Sustainability Topics."

The following chart provides an overview of our key stakeholder groups and the relevant dialogue formats.

Covestro's transparent dialogue with important stakeholders

Stakeholder groups	Forms of dialogue
Customers	<ul style="list-style-type: none"> Regular in-person exchanges via Sales and Marketing employees Branding and market research, customer surveys Attendance at international industry trade shows Webinars and digital showrooms
Employees	<ul style="list-style-type: none"> Town hall meetings with members of the Board of Management and senior executives Ad-hoc mailings and presentations, company intranet, social media, internal campaigns Dialogue between managers and employees, regular discussions between the Board of Management and Works Council
Suppliers	<ul style="list-style-type: none"> Together for Sustainability initiative Sustainability events and workshops with suppliers Regular exchange via staff with procurement responsibilities
Associations	<ul style="list-style-type: none"> Active member in national and international associations, e.g. Association of the Chemical Industry e. V. (VCI), Plastics Europe, American Chemistry Council (ACC), and China Petroleum and Chemical Industry Federation (CPCIF)
Scientific community	<ul style="list-style-type: none"> Long-standing, collaborative relationships with leading German and international universities and public research institutions
Investors, lenders, and analysts	<ul style="list-style-type: none"> Annual general meeting Annual report, half-yearly, and quarterly reporting Various events for investors and analysts with different focuses Online information offered on investor.covestro.com
Regulators	<ul style="list-style-type: none"> Regular exchange with government agencies, ministries, politicians
The public, neighbors, and NGOs	<ul style="list-style-type: none"> Ad-hoc dialogue, e.g., in the event of investment projects in the community Chempark neighborhood offices (Germany), community advisory panels (CAPs) (United States)
Media	<ul style="list-style-type: none"> Press releases, press conferences, background discussions, individual interviews Communication through social media channels such as LinkedIn, Twitter, Facebook, and YouTube Annual report, half-yearly, and quarterly reporting, as well as presentations and speeches from conferences and meetings (also available on our website)

Depending on the topic and its relevance, Covestro's departments identify and prioritize major stakeholders and select the appropriate dialogue format and frequency of contact in each case. Covestro has been using various digital dialogue formats (for example, for the Annual General Meeting as well as employee and customer events) to ensure that the company stays in touch with its stakeholders during the coronavirus pandemic.

[< Supplementary information](#)

Public Recognition

Our sustainability activities relating to environmental, social, and governance (ESG) are regularly evaluated by third-party organizations such as rating agencies. Sustainability ratings are not only a decision-making basis for institutional investors and customers, but also help us to continually review our sustainability activities and supplement them as needed. We have identified five strategic ratings and actively engage with the agencies. In the year 2021, Covestro received recognition from the rating agency ISS ESG, just as in fiscal 2020. ISS ESG again awarded us Prime status with an overall score of B-. This puts Covestro among the best 10% of rated companies in the chemical industry. Additionally, Covestro was ranked above average once more by another rating agency, Sustainalytics, placing it fifth out of 124 specialty chemical companies assessed. In the year 2019, the international rating agency EcoVadis gave us its top Gold rating, and we also retained the previous year's A rating from MSCI ESG Research, one of the world's largest provider of sustainability analyses and ESG ratings. In addition to the above-named ratings, we also qualified to remain listed in the important FTSE4Good Series. Covestro participated in the Carbon Disclosure Project's (CDP) Climate Change rating for the first time in the reporting year, receiving the second best score of A- right out of the gate. This demonstrates Covestro's great willingness to disclose a wide range of climate-related information and report extensively on the opportunities and risks for the company inherent in climate change.

Covestro has already entered into financing arrangements that link financing costs to a sustainability rating. Examples in the past included our revolving credit facility and bridge financing. Covestro continually observes whether other financial instruments can be linked meaningfully to sustainability aspects.

 See "Material Sustainability Topics" and "Financial Position."

Assessments by third-party organizations

Rating	Rating scale	Covestro's score						Distinction
		2016	2017	2018	2019	2020	2021	
	A to D- (top score: A)						A-	"Leadership" status (since 2021)
	0–100 points (the higher the better)	73			80			
	A+ to D- (top score: A+)	B-		B-		B-		"Prime" status (since 2016)
	AAA to CCC (top score: AAA)	BBB	BBB	A	A	A	A	
	Until 2019: 0–100 points (the higher the better) After 2019: 0–100 points (the lower the better)	74	75		80	23.3	20.0	18.3

We consider the results in these ratings and the inclusion in sustainability indices an indication of our ESG performance. The details of these ratings also show us how we can continue to improve.

 Additional information is available at: www.covestro.com/en/sustainability/what-drives-us/rating-and-indices

Circular Economy and Climate Neutrality

Strategy, Management, and Implementation

A key component of Covestro's Group strategy is the aim to become fully circular. This helps us address the environment-related sustainability aspects of our activities in particular. For us as a carbon- and energy-intensive company, our circularity strategy covers all of our commitments in this regard, particularly including our aim of achieving climate neutrality.

In moving toward a circular economy, Covestro strives to provide solutions with a lower carbon footprint than conventional production so that products and materials are returned to the value creation cycle at the end of their life cycle – as a whole, in the form of polymers, or in molecular or other chemical forms. Using other renewable sources of carbon and increasingly deploying renewable energy in production are supplementary measures Covestro will take to establish circularity in the company and achieve climate neutrality. In accordance with the Intergovernmental Panel on Climate Change (IPCC) and the United Nations Framework Convention on Climate Change (UNFCCC), we understand and support climate neutrality as society's collective goal of attaining net zero greenhouse gas (GHG) emissions by the year 2050 in the sense that they are equal to or lower than the emissions removed by the planet through natural absorption. For Covestro, this means reaching net zero emissions in its own operations and in energy procurement, while working on solutions to reduce emissions along the value chain. In addition to reducing emissions, this includes a shift toward nonfossil biogenic CO₂ sources, the use of technical and natural sinks, or compensatory measures to balance residual emissions.

In the reporting year, Covestro took additional steps to further advance efforts toward "becoming fully circular" in line with our corporate vision. All our activities aim to close carbon and material loops, and thus achieve climate neutrality in the company itself and in upstream and downstream stages of the value chain as well as reduce resource use and shrink our environmental footprint.

For Covestro, becoming fully circular also includes a seamless transition to climate neutrality. Covestro has been able to continually reduce specific energy usage by 40.2% since fiscal 2005 and therefore decrease the associated specific GHG emissions (Scope 1 and Scope 2). It goes without saying that the energy used to put in place a circular economy should not result in higher greenhouse gas emissions. Renewable energy plays a key role in this regard.

For the first time, we are supplementing our climate reporting for fiscal 2021 with a separate report published on our website aligned with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).



OUR TARGET FOR INCREASING CARBON PRODUCTIVITY



<p>STATUS</p> <p>Our circular economy activities are making a critical contribution. We investigated and evaluated various indicators and measurement methods for circularity during the reporting year and will build on this to develop a system for Covestro.</p>	<p>We intend to create more value sustainably and increase our carbon productivity by continually using fewer carbon-based fossil resources, taking a regenerative approach, and closing material loops. The goal is to decouple our value-generating activities from nonrenewable and noncircular raw materials such as fossil carbon.</p>
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Our global Circular Economy strategy program is our contribution to promoting a circular economy. We updated our focal areas in the strategy program as a result of the restructuring of the Group and continuous implementation of circularity in the company. Moreover, Covestro launched a global climate program in the reporting year led by the head of the Sustainability & Public Affairs corporate function (Chief Sustainability Officer). This program aims to build on the existing system for recording greenhouse gas emissions (Scope 1 and

Scope 2) to coordinate a shift by our production facilities toward climate neutrality. In fiscal 2022, we therefore plan to develop climate targets along with interim targets. The first step is to focus on quantitative targets for Scope 1 and Scope 2 emissions. The effects of future recycling technologies and new circular loops on greenhouse gases will also be considered. The second step will be to additionally include all relevant Scope 3 emissions and assign quantitative targets.

The segments and corporate functions are responsible for implementing the Group's vision. Global teams from various corporate functions drive implementation in line with the Circular Economy strategy program with a focus on topics such as developing circular business solutions, marketing circular solutions, transforming the product portfolio, sourcing renewable energy and raw materials, circular R&D, and site transformation. Their findings and recommendations are used to further develop the strategic circular economy action plan and the associated targets. Also contributing to this effort are other areas of focus covering advocacy, collaboration, employee engagement, and responsible business practices. Key guidance and questions regarding the circular economy strategy are handled by the Group's top-level governance body on environmental, social and governance (ESG) issues. This strategy program is sponsored by Covestro's Chief Executive Officer (CEO).

Circular Economy

Efforts toward building a circular economy in the company can be measured by verifying the degree to which we can replace fossil sources of carbon for production with renewable raw materials and create a closed loop for producing renewable anorganic compounds. We accomplish this for carbon sources by concentrating on products and processes that permit us to employ biomass, CO₂, and raw materials recycled from waste. Synthetic raw materials manufactured using green electricity, such as hydrogen, are also becoming increasingly important. In particular, Covestro can leverage procurement on the one hand and the development of our own innovative process technologies for CO₂ use, biotechnology, and plastics recycling using chemical means on the other. We are counting on new strategic partnerships to promote recycling within the value chain to make alternative raw material use transparent and to ensure used plastics are recycled at the end of their life cycle.

Monitoring Circularity in the Company

In the interest of quantifying our progress and successes in building a circular economy in line with our Group's vision, this reporting year we researched and assessed various indicators and methodologies for measuring circularity in the company. We aim to develop a customized system for Covestro following on this effort. To this end, we are also studying existing models, e.g., the ones developed by the Ellen MacArthur Foundation or the World Business Council for Sustainable Development (WBCSD), and building on our experience to date with approaches to carbon productivity.

Criteria for a Circular and Sustainable Product Portfolio

We have begun defining criteria and circularity requirements for our products and services so that we can align our product portfolio more closely with circular solutions for our customers and offer these in a targeted manner in the future. Examples include minimum recycled or renewable raw material content and the combined use of renewable energy in the production of our materials. A top priority in this regard is to improve our carbon footprint compared with a conventional product portfolio so that we can make a significant contribution to future climate-neutral value creation in our industry. During the year under review, we marketed new, circular product solutions in both segments.

Recyclability & End-of-Life Solutions

Our core technical competence is the development and application of complex chemical processes. In particular, we want to use this expertise to establish innovative chemical and biochemical recycling and production processes for a circular economy. We want to create processes that enable us to reclaim from used materials the chemical precursors required for their production. These can in turn be used as raw materials in our production activities. In addition, we also want to use raw materials that were recycled in upstream stages of the value chain at Covestro. On the whole, chemical recycling processes are an important tool to help Covestro in gradually replacing the use of fossil-based materials and in contributing to closing carbon loops as a pillar in a climate-neutral method of production. The benefits of the new processes will be verified by means of a life cycle assessment (LCA), in other words, taking into account effects and contributions throughout the entire life cycle.

When we engage in dialogue with politicians and the public, we advocate for structuring the required regulatory environment for establishing a circular economy with room for innovation and, in addition to established recycling methods such as mechanical recycling, also recognizing chemical recycling processes as complementary methods.

Covestro is currently researching recycling processes for its own products and materials in more than 20 projects. Of particular importance for Covestro are processes with which materials can be chemically or enzymatically transformed back into their molecules. The secondary raw materials obtained in this manner are of a comparable quality and have properties similar to conventionally manufactured raw materials, and can therefore be reused to manufacture products and materials.

We made progress in areas such as thermochemical recycling of high-performance materials with complex compositions. In the reporting year, Covestro commissioned two new laboratories in Antwerp (Belgium) and Dormagen (Germany) for the thermal decomposition of chemical compounds at elevated temperatures. These facilities can break down polycarbonates as well as rigid foams into high-quality molecules that can then be recycled and integrated into production processes as raw materials. Our low-temperature pyrolysis process enables us to eliminate several steps and therefore to considerably cut carbon emissions compared with conventional high-temperature pyrolysis.

Both pyrolysis and depolymerization are being investigated and pursued as possible chemical recycling technologies for rigid polyurethane foams. In depolymerization, polymers are turned back into materials such as monomers and intermediates using solvents, catalysts, and heat, under pressure if necessary. In this context, CIRCULAR FOAM, an EU project coordinated by Covestro, was launched in October 2021 and will run for four years.

 See "Strategic Partnerships and Collaborations."

Furthermore, in the year 2021, Covestro made progress in the chemical recycling of flexible polyurethane foam from mattresses. After commissioning a pilot plant in Leverkusen (Germany) at the end of fiscal 2020, we continued to research detailed process parameters in the reporting year and were therefore able to further analyze the laboratory results to date.

Another strategic option for Covestro is enzymatic recycling, which involves using enzymes to very selectively break down plastics into smaller fragments (monomers) at low temperatures. These monomers can then be reused to produce new, equally high-quality plastics. Enzymatic recycling is still in the early phase of development, but due to its high selectivity (generating few to no by-products) and low processing temperatures, this technology is very promising. Covestro has identified this potential and, in addition to our own research, has entered into key partnerships to deploy this innovative technology in recycling.

Besides developing pioneering recycling processes, Covestro has also tackled waste logistics. We are developing these activities in line with our circular economy goals of finding suitable ways to reuse previously used materials and products at the end of their life cycle. To this end, Covestro signed a strategic letter of intent with environmental services provider Interseroh Dienstleistungs GmbH, Cologne (Germany), during the reporting period aimed at collaborating on establishing new recycling loops. This partnership is a significant milestone for the convergence of the chemical and recycling industries.

Alternative Raw Materials

In addition to Covestro's own production of recycled and biogenic raw materials, the strategic alignment of our raw material and energy procurement activities with our corporate vision is vitally important. We aim to continually increase the share of alternative raw materials used in production and reach 100% in the long term. Covestro defines alternative raw materials as all raw materials made from biomass, CO₂, or waste, or manufactured on a nonfossil basis using renewable energy.

In the 2021 fiscal year, Covestro further stepped up the volume of strategic alternative raw materials sourced. We purchased a total of more than 20,000 metric tons of circular raw materials for use in production activities in Europe and at our site in Shanghai (China). The goal here is to be able to offer a broad market a steadily growing portfolio of sustainably manufactured materials.

We have begun to have our production facilities audited and certified to the ISCC PLUS process to reflect the certification of these raw materials for further use along the entire value chain. International Sustainability and Carbon Certification (ISCC) is a recognized system for certifying the sustainability of biomass and bioenergy. The standard, which covers all stages of the value chain, is widely used worldwide. In addition to Krefeld-Uerdingen (Germany) and Antwerp (Belgium), Covestro had additional sites, including Shanghai (China), certified to the ISCC PLUS process for the integration of renewable raw materials in production in the reporting period.

New Business Models, Digitalization, and Transparency in the Value Creation Cycle

It is critically important for the transformation to a circular economy that at the end of the life cycle of a material, the necessary information is available to choose a suitable recycling method. Covestro is involved in the Circularise Plastics project along with Circularise, The Hague (Netherlands), and DOMO Chemicals, Leuna (Germany). The objective of the project is to develop an open blockchain standard for establishing a data exchange protocol.

 See "Strategic Partnerships and Collaborations."

Covestro also implements digital processes to support technology development as part of the circular project portfolio. "In silico" catalyst development, in which the sequence of chemical reactions and the effect of different catalyst structures are calculated with computer-based methods, and simulation of reactions are common methods in digital chemistry that are applied in this context. We use our expertise in digitalization to develop important polymer feedstocks based on alternative raw materials. Covestro additionally concentrates on closing material loops in a number of different applications in the product portfolio. This includes partnerships and new business models aimed at adding value for our customers, for example, by marketing recycled products. In this way, modern data science methods support adaptation to future value chains.

 See "Use of Digital Technologies."

Global and Regional Promotion of the Circular Economy

We also promote the circular economy by participating in regional and global initiatives. For example, as a founding member of the Alliance to End Plastic Waste, Covestro actively campaigns for regulated systems for disposing of and recycling plastic waste to stop it from entering the environment.

 See "Alliance to End Plastic Waste."

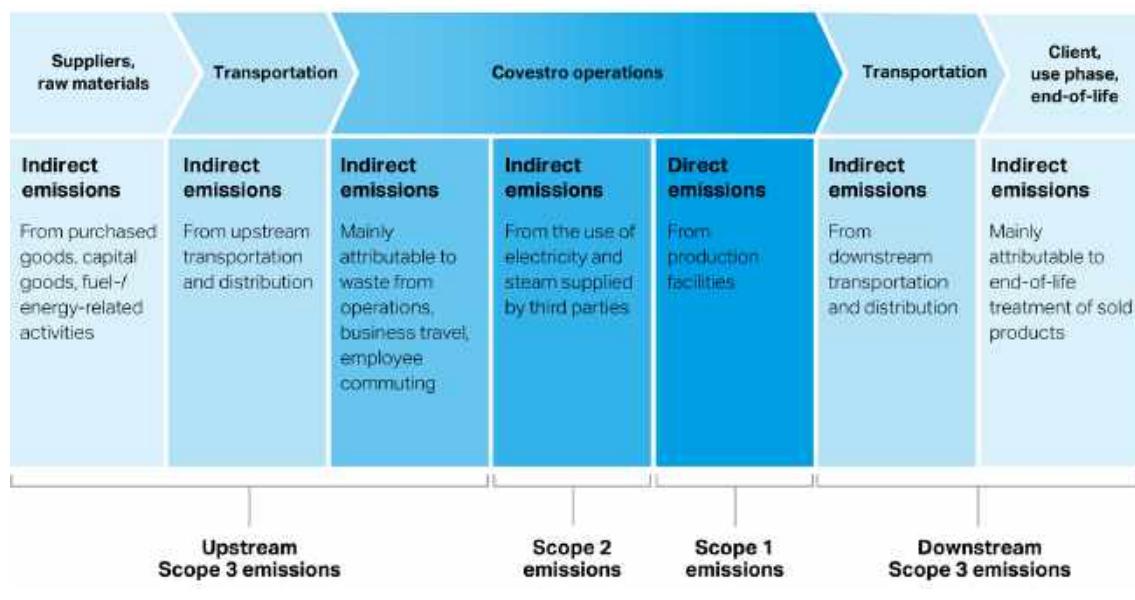
In addition to various R&D projects on the circular economy, Covestro participates in other circular economy projects at the sociopolitical level in Europe. Covestro is a founding member of the Circular Plastics Alliance, whose goal is for European industry to use at least 10 million metric tons of recycled plastics annually from the year 2025 onward. Recommendations for value-chain-specific action items are developed here in specific working groups. Covestro is an active member in the automotive, packaging, construction, electronics, and monitoring groups.

In China, we were also involved in circular economy topics through various associations such as the China Petroleum and Chemical Industry Federation (CPCIF), the China Plastics Reuse and Recycling Association (CPRRA), and the China Circular Economy Association (CCEA). By participating in these associations, Covestro plans to contribute to advancing the closed loop principle for plastics in China and to raising awareness among politicians and citizens of circular options along the entire value chain, particularly in the area of plastics. As one of the world's most important producers of chemicals, China is taking steps to further domestic plastic recycling and, at the same time, to prohibit or limit the use of single-use plastics. Covestro contributed in the year under review to developing national standards there for recycled polycarbonate along with a consortium of partners from the Chinese recycling value chain.

Climate Neutrality

Along with governments, non-governmental organizations, and other private-sector companies, Covestro supports implementation of the results of the 21st UN Climate Change Conference, which took place in Paris in 2015, and is committed to the UN Sustainable Development Goals (SDGs). For instance, Covestro participates in the German Chemical Industry Association's (Verband der Chemischen Industrie, VCI) In4Climate NRW and Chemistry4Climate initiatives to proactively develop solutions to master the challenges posed by climate change and bring about the industrial transformation necessary to do so. Our long-term corporate vision of becoming fully circular can only be successful if, at the same time, total greenhouse gas (GHG) emissions are continually reduced in order to contribute to achieving a climate-neutral economy. Covestro's climate program includes this transformation as a strategic component. In the reporting year, the global CO₂ roadmap was updated as part of the climate program to bring Covestro's existing goal of reducing greenhouse gas emissions in alignment with our corporate vision and regulatory requirements. The roadmap is a pillar of our climate program intended to support our efforts to set new GHG emissions targets as well as contribute to continually cutting emissions in the short, medium, and long term. It will serve as the foundation for prioritizing specific initiatives for reducing GHG emissions and for aligning our climate-related targets with the Group's vision going forward. In this process, the roadmap will fundamentally be used to address and analyze direct and indirect sources of emissions in accordance with the Greenhouse Gas Protocol (GHG Protocol). Covestro already has a regular reporting system in place for Scope 1 and Scope 2 GHG emissions. In the reporting year, a system was established for reporting on Scope 3 GHG emissions based on the GHG Protocol.

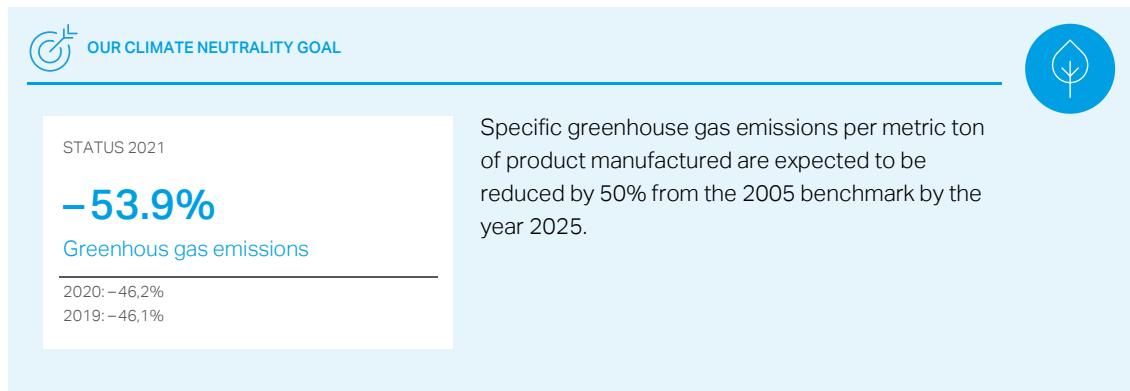
Covestro's GHG emissions along the value chain



Scope 1 and Scope 2 GHG Emissions

Covestro calculates greenhouse gas emissions according to the internationally recognized standards of the GHG Protocol. Direct emissions, e.g., from burning fossil energy sources and from our production processes (Scope 1), as well as indirect emissions from the provision and use of energy produced outside the company (Scope 2) at all environmentally relevant facilities, i.e., all production facilities and relevant administrative facilities with a significant impact on the environment, are included in the calculations. In addition to CO₂, Scope 1 emissions comprise all relevant greenhouse gases, including nitrous oxide (N₂O), methane (CH₄), and partly fluorinated hydrocarbons.

Scope 2 emissions are reported using the location-based and market-based methods. Market-based emissions factors were mostly used when calculating specific Scope 2 greenhouse gas emissions; wherever these were not available, the calculation was based on location-based emissions factors from a generally accepted source (e.g., International Energy Agency* (IEA) emissions factors).



The Covestro Group has set the sustainability goal of cutting specific greenhouse gas emissions by 50% from the 2005 benchmark by the year 2025. This is calculated by dividing the absolute Scope 1 and Scope 2 GHG emissions by our production volume at our main production sites, which are those responsible for more than 95% of our energy usage. In fiscal 2021, specific emissions totaled 0.3338 metric tons of CO₂ equivalents per metric ton of product. Compared with the base year 2005, this corresponds to a cumulative drop of 53.9%, and a 14.2% decrease compared to the previous year. We were therefore early in meeting our target of halving GHG emissions from the 2005 baseline. In the reporting year, we began to develop new targets for reducing our GHG emissions.

Greenhouse gas (GHG) emissions at main production sites¹

	2020	2021
GHG emissions ² (million metric tons of CO ₂ equivalents)	5.45	5.22
Production volume ³ (in million metric tons)	13.99	15.63
Specific GHG emissions⁴ (metric tons of CO₂ equivalents per metric ton of production volume)	0.3892	0.3338

¹ Portfolio-adjusted based on the GHG Protocol; financial control approach; global warming potential (GWP) factors correspond to the IPCC's Fifth Assessment Report.

² GHG emissions (Scope 1 and 2, GHG Protocol) at main production sites (responsible for more than 95% of our energy usage).

³ All in-spec key products – which, in addition to our core products, also include precursors and by-products – manufactured at main production sites, which are responsible for more than 95% of our energy usage.

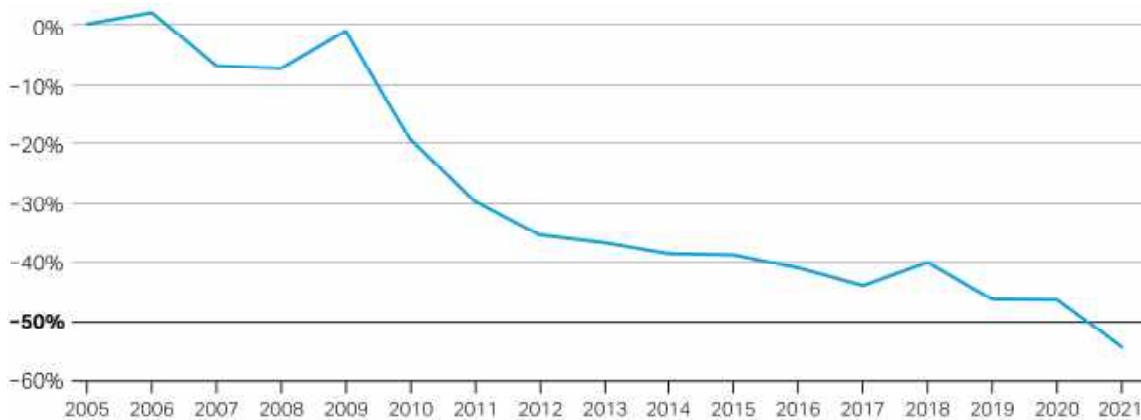
⁴ GHG emissions (Scope 1 and 2, GHG Protocol) divided by production volume.

The decline during the year was mainly due to technical improvements in nitrous oxide (laughing gas) purification at our sites in Baytown (Texas, United States), and Shanghai (China). Furthermore, previously reported steam volume and related GHG emissions had to be corrected for one of our US sites. In total, this led to a decrease in the calculated GHG volumes.

* International Energy Agency (IEA), "IEA Emission Factors 2021" document. All rights reserved by the IEA.

Changes in specific GHG emissions at main production sites

(cumulative annual change in specific GHG emissions per metric ton of product compared with 2005 benchmark – presented in %)¹



¹ The calculation methods for fiscal 2018 onward were changed to the current market-based method in accordance with the Scope 2 Guidance of the GHG Protocol. The values reported for the year 2005 to the year 2017 are calculated throughout in accordance with the methods in the GHG Protocol in effect until the year 2014. When calculating changes in percentage points from the year 2017 to the year 2018, the value for the year 2017 was recalculated on the basis of the market-based method for comparability purposes.

In addition to main production sites, absolute Scope 1 and Scope 2 GHG emissions are also monitored for other environmentally relevant sites. In the year 2021, the Group's GHG emissions declined by 2.8% year over year. Direct GHG emissions dropped 21.5% and indirect GHG emissions increased by 2.5%.

Covestro's total GHG emissions¹ (million metric tons of CO₂ equivalents)

	2020	2021
Direct GHG emissions ²	1.25	0.98
Indirect GHG emissions calculated using the location-based method (GHG Protocol 2015) ³	4.48	4.40
Indirect GHG emissions calculated using the market-based method (GHG Protocol 2015) ³	4.33	4.44
Total GHG emissions, comprising Scope 1 and 2 emissions according to the market-based method of the 2015 GHG Protocol	5.58	5.42

¹ Portfolio-adjusted based on the GHG Protocol; financial control approach; global warming potential (GWP) factors correspond to the IPCC's Fifth Assessment Report.

² In the year 2021, 83.8% of emissions were CO₂ emissions, 15.5% were N₂O emissions, 0.5% consisted of partly fluorinated hydrocarbons, and 0.2% was methane.

³ In combustion processes, CO₂ typically makes up more than 99% of all greenhouse gas emissions; this is why we restrict ourselves to CO₂ when calculating indirect emissions.

Energy Usage

Covestro is an energy-intensive company. For this reason, energy usage and GHG emissions are closely linked. Covestro's energy usage includes the primary energy used in production and during electricity and steam generation by the company as well as additionally acquired quantities of electricity, steam, refrigeration energy, and process heat (secondary energy). The secondary energy is calculated back to arrive at the equivalent primary energy usage required to generate them. This takes into account the energy lost while distributing these forms of energy. All told, these figures make up Covestro's equivalent primary energy consumption. In the interest of setting accurate targets, we track the energy usage of the sites we define as main production sites. These account for more than 95% of our total energy usage.

The use of energy and materials and the level of greenhouse gases emitted are closely related to the quantity of materials we produce. In fiscal 2021, total energy usage in the Group rose by 2.6%, and the equivalent primary energy usage at main production sites also grew by 1.5% – while production volumes increased by 11.7%. The equivalent primary energy usage for a given production volume (energy efficiency) improved accordingly, by 9.1%. The decrease in specific energy usage in the reporting year can therefore be mainly attributed to the cyclical improvement in plant capacity utilization. In our experience, a better utilized production facility leads to improved efficiency in terms of energy usage for a given production volume (specific energy usage). Furthermore, previously reported steam volume and related GHG emissions had to be corrected for one of our US sites, where the figure previously recorded had been too high. This also affected the calculated energy usage accordingly.

Energy usage in the Covestro Group at main production sites

	2020	2021
Equivalent primary energy usage ^{1,2} (in megawatt hour [MWh])	20,212,384	20,516,545
Production volume ³ (million metric tons)	13.99	15.63
Specific energy usage (energy efficiency)⁴ (MWh per metric ton)	1.44	1.31

¹ Sum of all individual energies used at our main production sites (responsible for more than 95% of our energy usage), converted into primary energy.

² Equivalent to 73,860 terajoule (TJ) in the reporting year (previous year: 72,765 TJ).

³ All in-spec key products – which, in addition to our core products, also include precursors and by-products – manufactured at main production sites, which are responsible for more than 95% of our energy usage.

⁴ Ratio of equivalent primary energy usage to production volume.

In addition, by the year 2030 we also want to halve the specific energy usage of our production facilities compared with the same base year 2005. This energy efficiency boost will contribute to further reducing specific GHG emissions. Our continued long-term positive trend indicates an overall 40.2% improvement in energy efficiency compared to the base year 2005 as shown in the following figure.

Changes in specific energy usage at main production sites

(annual change in specific primary energy usage per metric ton of product compared with 2005 benchmark – presented in %)¹



¹ (Equivalent primary energy usage/production volume)/(equivalent primary energy usage 2005/production volume 2005).

Covestro's STRUCTese® (Structured Efficiency System for Energy) system played a key role in permanently improving our specific energy usage. The energy efficiency system developed by Covestro compares actual energy usage in production with the realistic potential optimum. Eliminating inefficiencies results in permanent energy savings. STRUCTese® includes various steps that enable the identification of improvement measures – from analysis to monitoring to benchmarking. These measures are known at Covestro as STRUCTese® projects. The system, which has been gradually rolled out since the year 2008, is now used in many of our energy-intensive production facilities around the world and will be implemented in other facilities going forward.

In fiscal 2021, for instance, we invested in oxygen-depolarized cathode technology in our electrolysis operations at the Krefeld-Uerdingen (Germany) site. This is more efficient than conventional processes. Primary energy usage was therefore cut by more than 16,800 MWh, which is the equivalent of reducing emissions by some 4,400 metric tons of CO₂.

Moreover, Covestro carried out various other projects in fiscal 2021, resulting in annual savings of 29,600 MWh of primary energy, or 8,000 metric tons of CO₂ emissions. In addition, pro-rated savings from projects completed in the previous year (2020) amounted to 61,800 MWh of primary energy and 13,900 t of CO₂ and were realized in fiscal 2021. Combined, all the projects implemented since the introduction of STRUCTese® in the year 2008 have resulted in lasting reductions totaling 2.43 million MWh of primary energy and around 730,000 metric tons of CO₂ per year. In addition to main production sites, energy usage is also documented for other environmentally relevant Covestro sites.

Energy usage by energy type in the Group

	2020	2021
Primary energy usage for the in-house generation of electricity and steam (net, TJ)	7,450	8,851
Natural gas	7,991	9,059
(of which natural gas sold to external third parties)	(98)	(120)
Coal	–	–
Liquid fuels	85	165
Waste	574	750
Other ¹	(1,200)	(1,123)
Secondary energy usage (net, TJ)	48,019	48,046
Electricity ²	22,790	23,963
(of which electricity sold to external third parties)	(1,953)	(1,879)
Steam	22,301	22,158
(of which steam sold to external third parties)	(556)	(574)
Steam from waste heat (process heat)	2,488	1,475
Refrigeration energy	440	450
(of which refrigeration energy sold to third parties)	(73)	(76)
Total energy usage (TJ)	55,469	56,897

¹ E.g., hydrogen.

² Secondary energy usage for electricity is determined on the basis of the raw material mix of the country concerned.

Renewable Energy

In the future, Covestro intends to meet all of its energy needs with renewable energy. Actions we have taken toward this goal include developing new supply plans and signing purchase contracts for renewable energy, particularly electricity. In the reporting year, we signed an agreement with our energy supplier at the Antwerp (Belgium) site to procure 97 GWh of green electricity each year to cover 45% of our electricity needs at the site with wind energy. Another agreement for 60 gigawatt hours (GWh) of green electricity per year was signed for the sites in North Rhine-Westphalia (Germany) as part of our strategy of supplying our European sites with more than 400 GWh of electricity annually from renewable sources in the period from 2022 to 2026. Our site in Shanghai (China) obtained around 460 GWh of green electricity from the Three Gorges Dam in the reporting year and covered more than 40% of its electricity needs with renewable energy. This bolsters Covestro's sustainability strategy. Likewise, it contributes to shrinking the carbon footprint of production, our products, and our customers' applications.

Moreover, hydrogen is expected to contribute substantially to reducing GHG emissions both through use as energy and as a material, for instance, as part of CO₂ conversion in the chemical industry.

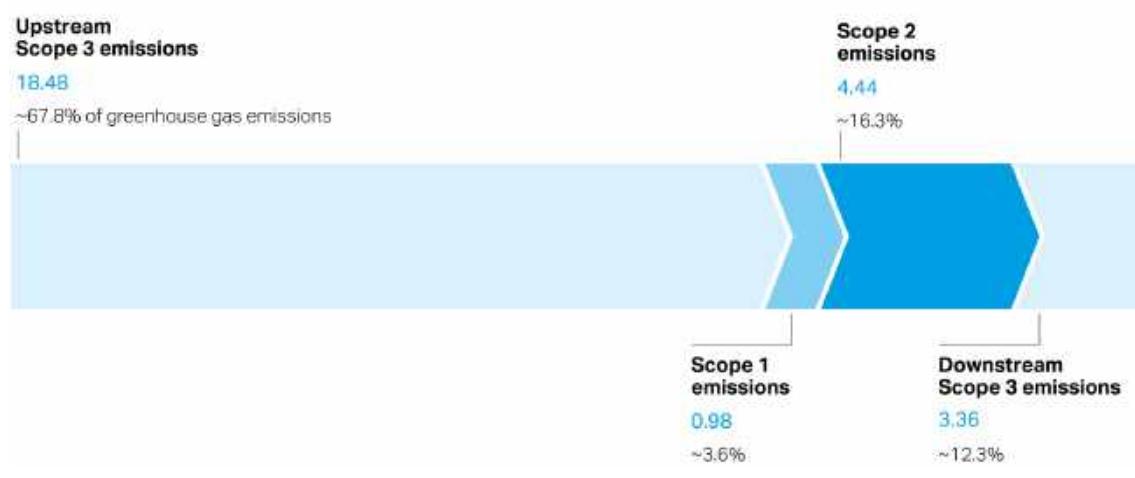
[Supplementary information >](#)

Scope 3 GHG Emissions

Upstream and downstream greenhouse gas emission data along the entire value chain (Scope 3) has been collected and reported at Covestro since the 2021 reporting period. Scope 3 emissions are determined for all environmentally relevant Covestro sites according to the categories and methods of the GHG Protocol and the Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain by the World Business Council for Sustainable Development (WBCSD). All categories were reviewed for relevance under the guidelines of the GHG Protocol in order to quantify all emissions associated with Covestro's business activities as completely as possible. Based on this analysis, we report the emissions resulting from the nine categories considered relevant to us. The basis for calculating the other indirect GHG emissions (Scope 3) are internal activity data and emissions factors from commercially and publicly available sources, or sources recommended by the GHG Protocol. The emissions for each Scope 3 category are based on individual calculations, which are described in detail in the Carbon Disclosure Project (CDP) questionnaire we completed. By continually improving the data basis and calculation methods used, we will further advance the accuracy and completeness of our Scope 3 emissions reporting.

The other indirect GHG emissions (Scope 3) represent 80% of the Group's total GHG emissions.

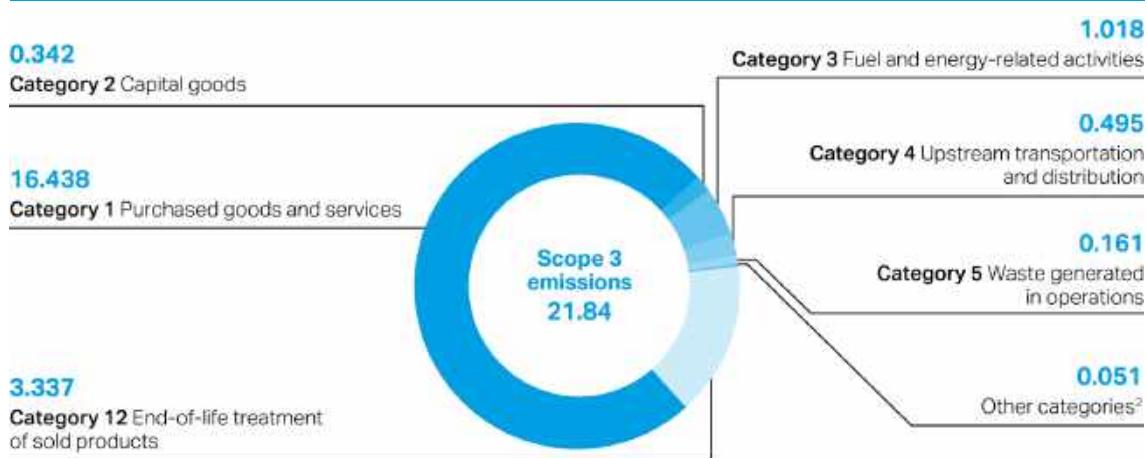
Covestro Group GHG emissions (Scope 1, Scope 2, and calculated Scope 3) in million metric tons of CO₂ equivalents



Scope 3 emissions calculated in fiscal 2021 amounted to 21.84 million metric tons of CO₂ equivalents. Most of our Scope 3 emissions are attributable to categories upstream in our value chain. The categories of "purchased goods and services," "end-of-life treatment of sold products," and "fuel- and energy-related activities" are the main source of our other indirect GHG emissions. Biogenic CO₂ emission equivalents stemming from the value chain totaled 99,052 t CO₂ equivalents in the reporting period in absolute terms and are disclosed separately from the gross volume of Scope 3 emissions in accordance with the GHG Protocol and the WBCSD.

Total Scope 1, Scope 2, and calculated Scope 3 emissions in the reporting period amounted to 27.26 million metric tons of CO₂ equivalents. There is no comparable prior-year value available for Scope 3 emissions, since this is the first year Covestro is calculating this figure.

**Composition of Scope 3 emissions categories according to the GHG Protocol in million metric tons
of CO₂ equivalents¹**



¹ Portfolio-adjusted based on the financial control approach of the GHG Protocol; global warming potential (GWP) factors according to the IPCC's Fifth Assessment Report.

Nonrelevant emissions categories: 8. Upstream leased assets; 11. Use of sold products; 15. Investments. Estimates indicate that these categories account for <1% of Covestro's total Scope 3 emissions. Their levels are therefore insignificant according to the definition in the GHG Protocol.

Nonrelevant emissions categories: 13. Downstream leased assets; 14. Franchises. Covestro does not operate any plants that are leased to third parties and whose emissions are not already included in Scope 1 and Scope 2 emissions reporting. Moreover, Covestro does not own or operate any franchises.

Unreported emissions category: 10. Processing of sold products. Since data could not always be obtained and there are numerous applications for Covestro's products, calculating these emissions would require disproportionate effort. In this case, Covestro refers to the WBCSD guidance, according to which a chemical company whose product portfolio contains a broad range of intermediates is not required to report Scope 3, Category 10 (processing of sold products).

Contributions of Scope 3 emissions from the acquisition of the RFM business in the year 2021 are included to the extent that activity data was available during ongoing systems integration. Accordingly, we include the following Scope 3 categories and elements of the RFM business: 1. Purchased goods and services – only raw materials, 3. Fuel- and energy-related activities, 5. Waste generated in operations, 7. Employee commuting, and 12. End-of-life treatment of sold products.

² "Other categories" includes the following: 6. Business travel; 7. Employee commuting; 9. Downstream transportation and distribution.

[**< Supplementary information**](#)

Innovation

For Covestro, innovation as a driver for greater sustainability in line with the United Nations Sustainable Development Goals (SDGs) is a core element of our strategy and an integral part of our identity. Our understanding of innovation is broadly defined: We do not rely on traditional research and development (R&D) alone, but rather also on the great potential for creativity throughout the company. We encourage all employees to promote innovation at Covestro.

In order to maintain and reinforce our position in the global arena, we work at all levels in close partnership with the Board of Management member responsible for Innovation to develop new products, refine established ones, and optimize manufacturing and processing procedures. Likewise, application areas business models, and business processes are subject to ongoing review.

Covestro split innovation activities into two core areas in the 2021 fiscal year. For one, we conduct business-related R&D in the business entities, focusing on specific, short- and medium-term R&D issues.

 See "Innovations in the Segments."

For the second area, the corporate Group Innovation function mainly deals with medium- and long-term sustainability, circular economy, and digital transformation issues. Group Innovation is also responsible for providing a globally harmonized R&D infrastructure as well as providing the reportable segments and their business entities with support for R&D. Group-wide steering committees chaired by the Chief Executive Officer (CEO) network and coordinate the two core innovation areas.

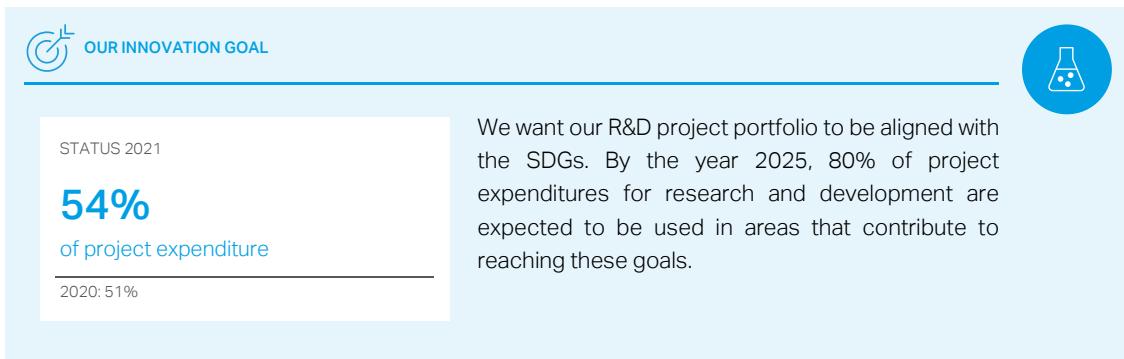
Innovation Management

By managing innovation systematically throughout the Group, we ensure that our ongoing and planned activities and our project pipeline always satisfy the needs of our user and consumer industries. Covestro uses a wide variety of tools to achieve this: For example, we use a standardized method to assess every R&D project and incorporate the resulting findings into ongoing and future projects. The global, digital platform idea.lounge is available for discussing and working on new, creative ideas from all parts of the company. Apart from that platform, an additional digital platform called "Covestro Ideenmanagement" (Idea Management) is available to employees in Germany and is used to manage all suggestions for improvement throughout the company. At Innovation Celebrations, we recognize employee projects from around the world that reflect our broad understanding of innovation. The awards serve to recognize innovative ideas in the "Products and Applications," "Process and Manufacturing," "Business Model and Commercial," "Business Processes," and "Intellectual Property Strategy" categories.

Sustainable R&D-Based Innovation Portfolio

Covestro already has many different sustainable solutions on the market and, going forward, aims to develop and market products even more closely aligned with the SDGs. Attaining this goal means continually changing over our product range to more sustainable solutions. For instance, in R&D we have already begun our pursuit of a much more sustainable project portfolio. This focus enables us to identify and research unconventional and unique approaches early on, and therefore to contribute to the SDGs with our R&D products and technologies.

 See "Innovations in the Segments."



We set high standards for evaluating our projects in line with our ambitious goal and therefore only consider projects that make an additional contribution to the SDGs when measuring our progress. In fiscal 2020, we incorporated a Group-wide assessment process into the existing innovation process that measures our progress on projects to quantify this additional contribution. This involves subjecting all R&D projects to an assessment based on expert interviews with experts in which we ask specific questions to evaluate the impact of the project and its results on all 17 SDGs. Only projects adding specifically measurable value to the SDGs over and above that of solutions currently on the market are included in the measurement of our goal attainment. This assessment matrix was applied to Covestro's R&D portfolio in the 2021 reporting year. In this portfolio, 54% and therefore €40 million (previous year: 51% and €41 million) of R&D project expenditure exceeds our defined threshold. The acquisition of RFM expanded our R&D pipeline, but the integration of these R&D projects into Covestro's project portfolio will not be completely finished until the coming reporting year. For this reason, the above metric includes only the R&D portfolio existing at Covestro prior to RFM's integration into the company.

In fiscal 2021, our total R&D expenditure amounted to €341 million (previous year: €262 million). This mainly went toward developing new application solutions for our products and refining products and process technologies. As of December 31, 2021, 1,477 employees* worked in research and development worldwide (previous year: 1,205), most of them at the three major R&D facilities in Leverkusen (Germany), Pittsburgh (Pennsylvania, United States), and Shanghai (China).

Use of Digital Technologies

We are committed to further pursuing digitalization along with the associated new opportunities for the entire chemical and plastics industry value chain. Covestro utilizes the opportunities arising from digitalization with a comprehensive strategic program and especially the intelligent use of data, thus setting new standards in cooperation with customers. We increasingly anchor digital technologies and work methods in production, along the supply chain, in research and development, in administrative functions, and at all points of contact with customers as well as in the development of new business models. A steering committee for decision-making has been set up, the Digital Governance Body (DiGoB). It is chaired by the Chief Executive Officer (CEO) and tasked with always keeping the specific benefit for our customers front of mind. Another area of focus in the reporting year was switching the technology for delivering data, computing capacity, and predefined services to the cloud.

Last year, the Digital Solutions Lab in Leverkusen (Germany) established a team of digital solutions professionals to provide expert support for developing and implementing digital products and business models. An initial example was the roll-out of our new service that is part of the CLUE (Competitors Landscape User Explorer) platform and makes comparing products available on the market easier. Another team of experts handles data science, algorithms, machine learning, and artificial intelligence (AI). Based on a Group-wide data analytics platform introduced last year, application cases are developed, operationalized, and scaled up, if possible.

* The number of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours. The figures do not include employees in vocational training.

An important initiative for further improving the profitability of our R&D activities is the expansion of our high-performance computing cluster at the Leverkusen (Germany) site to create new computing capacity. Digital R&D also uses flexible cloud-based services to accelerate feasibility studies and the early development of applications and models, which can be seamlessly integrated into local high-performance computing clusters. Furthermore, we are working in conjunction with start-up Ware Corp. in Palo Alto (California, United States), and the quantum artificial intelligence team from Google Ireland Ltd., Dublin (Ireland), on the promising quantum computing technology. Complex mathematical problems that exceed the computing capacity of commonly available computers can be solved by providing the necessary software and hardware for this purpose.

 See "Strategic Partnerships and Collaborations."

Highly sophisticated simulation methods illustrating chemical processes and physical phenomena are standard at Covestro and help speed up the development of new or improved products and processes. For this reason, these are increasingly developed in-house at Covestro. Moreover, a global, Group-wide R&D knowledge platform has been built to provide easy access to all search results of recent years and all types of current R&D data. Furthermore, sensor data for selected production and processing systems is available. This helps users obtain data-driven insights into ways to accelerate product development and to improve production. Covestro is also stepping up efforts to improve data quality and data collection processes for developing algorithms to predict material qualities, support product development, and enable better understanding of interconnected information.

We are digitizing laboratories by implementing processes to allow for hands-free documentation using speech recognition and automated data collection from laboratory hardware. During this process, we also aim to increase data quality and workplace safety. The same applies to the automatic collection of processing data from plants. For instance, unusual incidents in process control can be identified more quickly. We continue to use data analysis for production processes, and continually invest in employees and infrastructure to systematically promote digitalization – thereby improving the efficiency of work and production processes using modern data processing and the intelligent interconnection of systems. In addition, a centralized standard system (Covestro Monitoring Platform) was created to provide support such as cost-efficient and predictive maintenance of equipment and plants.

Strategic Partnerships and Collaborations

Covestro aims to increase the efficiency of our research with in-house activities and strategic collaboration with industrial and scientific partners. Bilateral alliances and collaboration in large, publicly funded consortia characterize our partnerships with research facilities and universities as well as with companies along the value chain.

In fiscal 2021, Covestro expanded the COVeC (Covestro Venture Capital) approach and invested in QC Ware Corp., Palo Alto (California, United States), a leading developer of quantum algorithms. Covestro has been working with a QC Ware Corp. quantum chemistry team since the year 2020, which has already led to the development of two patented basic technologies for chemical quantum computing simulations. The investment aims to step up research into the use of quantum algorithms for simulating chemicals and securing a long-term partnership with QC Ware Corp.

 See "Use of Digital Technologies."

 Additional information is available at: <https://www.covestro.com/en/innovation/covestro-venture-capital>

Covestro maintains long-standing and strategic partnerships with various universities. These include RWTH Aachen University (Germany), Tongji University in Shanghai (China), and Carnegie Mellon University in Pittsburgh (Pennsylvania, United States).

Overview of the top three partnerships with universities

Partnerships with universities			
EMEA	NA	APAC	
RWTH AACHEN UNIVERSITY RWTH Aachen University	Focus: <ul style="list-style-type: none">Process developmentBasic research Examples: <ul style="list-style-type: none">Chemical catalysis in various projects (CAT Catalytic Center, QuinCAT)Electrochemistry (endowed professorship)		
CARNEGIE MELLON UNIVERSITY Engineering Carnegie Mellon University	Focus: <ul style="list-style-type: none">Digital technologies and machine learningApplication development Examples: <ul style="list-style-type: none">Collaboration with start-ups in the university environmentOpen innovation competitions (Pittsburgh Penguins Make-a-thon, Hackathon)		
 Tongji University	Focus: <ul style="list-style-type: none">R&D projects on electric vehicle batteries, 3D printing, and sustainabilityIncubator for start-ups and promotion of talent Examples: <ul style="list-style-type: none">Commercialization of products developed and events with industrial and education partnersOpen innovation competitions (Make-a-thon, Hackathon)		

The QuinCAT – Quick Incubation in Catalysis incubator supported by the German state of North Rhine-Westphalia is under construction jointly with RWTH Aachen University and will begin operating in the year 2022. The incubator will be a place for developing ideas involving chemicals to enable the founding of a start-up company as a second step. Covestro provides consulting on this process, and will be represented by our CEO on the steering committee when it convenes.

Along with 21 partners from nine countries, including RWTH Aachen University, the collaborative CIRCULAR FOAM project was launched in fiscal 2021 with Covestro as its coordinator. The goal here is to close the material loop for rigid polyurethane foams, which contribute to a significant increase in energy efficiency as insulation in refrigerators and buildings. To date, however, there has been no coordinated waste management or suitable recycling process for this material. This project will develop an end-to-end solution and prepare for implementation of this concept across Europe over the next four years. From the year 2040 onward, this will potentially prevent the generation of 1 million metric tons of waste and the emission of 2.9 million metric tons of carbon dioxide (CO₂) per year, while also saving €150 million in incineration costs. The project receives support from the European Union's Horizon 2020 research and innovation program.

In the interest of closing carbon loops, electrochemical processes offer a good starting point for forward-looking, circular solutions for the energy-efficient manufacture of basic chemicals. In pursuit of this goal, Covestro collaborated with RWTH Aachen University and the Jülich Research Center (Germany) to continue establishing the Competence Center for Industrial Electrochemistry ELECTRA in Aachen (Germany). Facilities were commissioned in Aachen, and the research building is being constructed in Jülich. ELECTRA will be a Competence Center for research on more effective, robust, durable, and safe electrolyzers.

Another example of a collaboration in a consortium project is the Kopernikus project Power-to-X (P2X), which is subsidized by the Federal Ministry of Education and Research. The transportation, industrial, and heating supply sectors need low-emissions solutions if Germany is to achieve climate neutrality by the year 2050. P2X researches one of the most promising approaches: technologies that convert green electricity into other forms of energy or materials, e.g., fuels, heat, and gases, or chemical raw materials and plastics. Along with partners, Covestro is investigating how hydrogen and CO₂ can be converted into polymer building blocks that are urgently needed in the chemical industry. Some promising chemical intermediates have been developed that are being tested for polyurethane and coating applications. Covestro is also investigating the possibility of participating in the third funding phase of the Kopernikus Power-to-X (P2X) project with a concept for chemically scaling of this class of substances.

In order to further drive the development of the CO₂ technology platform, Covestro has, since the year 2017, coordinated the Carbon4PUR research project sponsored by the European Union (EU). This entails researching the use of industrial waste gases like carbon monoxide as new sources of raw materials for the production of insulation materials and coatings in conjunction with 13 other industrial and scientific partners in Europe. A key success of Carbon4PUR is the identification of new types of catalysts enabling the manufacture of new polyols. With the help of these catalysts, our research partners were able to produce polyols at laboratory scale using carbon monoxide-based gas mixtures. Carbon monoxide (CO) makes up 27% of this unique precursor. The new technology was assessed and deemed to be beneficial both ecologically and economically, and was successfully produced at a semi-industrial scale. Our partners have already demonstrated initial applications for the product: Plastics manufacturer Reticel, Brussels (Belgium), and chemical company Megara Resins, Megara (Greece), have both conducted product tests based on the research results.

In cooperation with Circularise, The Hague (Netherlands), and DOMO Chemicals, Leuna (Germany), Covestro participates in the Circularise Plastics project to develop an open blockchain standard for establishing a data exchange protocol. This is intended to facilitate the identification of materials along the value chain so that the best possible recycling option at the end of the product's life cycle can be determined. The unique thing here is that the stored information is only accessible to those with a justified interest so that sensitive product information remains protected. Based on the success of the initial partnerships, Covestro is also expanding pilot projects with Dr. Ing. h. c. F. Porsche AG, Stuttgart (Germany), and other original equipment manufacturers (OEMs) to enable traceability of the carbon footprint and other sustainability metrics for materials and products along the supply chain and to digitalize this process using blockchain technology.

Process Technology

Another key driver of innovation at Covestro is process technology. All of these activities were combined in the corporate Process Technology function in fiscal 2021 to optimally unlock the resulting potential and to provide the best possible assistance for tackling challenging strategic targets in terms of competitiveness, sustainable growth, and the circular economy. This function is responsible for process technology in Covestro's production activities and supports operations in the segments. The focus is on continual improvement of our production processes, process design for new production facilities, the development of new process technologies, and scaling newly developed products to industrial scale. Success in these endeavors depends materially on maintaining and systematically upgrading of Covestro's technological competencies with a clear focus on our employees, successful networking with internal and external partners, and digital transformation in production and technology.

In recent years, we have developed a number of disruptive processes to technological maturity and implemented them, significantly improving our resource and energy efficiency in particular. For instance, the development of gas-phase phosgenation of toluylene diisocyanate (TDI) at the Dormagen (Germany) and Shanghai (China) sites led to energy savings of up to 60% and a reduction in carbon emissions by 60,000 metric tons per year compared with conventional methods. Another example here is the oxygen-depolarized cathode technology for manufacturing chlorine. This technology is currently being incorporated into the new chlor-alkali facility Covestro is building in Tarragona (Spain) and is already being used in Krefeld-Uerdingen (Germany). In fiscal 2021, this enabled our electrolysis operations to cut carbon emissions by 4,400 metric tons.

 See "Energy Usage."

Other notable examples are cardyon® a technology used to manufacture CO₂-containing polyether polyols, and the recycling of saline process wastewater in polycarbonate production. Also worth mention is the novel adiabatic-isothermal phosgenation (AdiP) technology we recently began deploying in a pilot plant in Brunsbüttel (Germany) for manufacturing our key product: diphenylmethane diisocyanate (MDI). This technology enables us to conserve up to 40% of the steam and 25% of the electricity normally used per metric ton of product, as well as to reduce carbon emissions by up to 35%. Our intellectual property is protected with a broad portfolio of patents.

 See "Innovation in the Performance Materials Segment."

Recently, important breakthroughs were achieved in the development of processes for manufacturing biobased aniline and other carbon-based polymers as well as optimizing processes and expanding the portfolio of products manufactured from biobased pentamethylene diisocyanate (PDI). We also reached an important milestone in the development of new technologies for recycling plastics in fiscal 2021 with the successful commissioning of a pilot plant at the Leverkusen (Germany) site for the purpose of chemically recycling flexible polyurethane foams, which are used for applications such as mattresses.

Innovations in the Segments

Innovation in the Performance Materials Segment

We work continually in the Performance Materials segment to add new raw materials and optimized processes to our products to develop them into industry standards in the established applications. Our particular focus here is on our core applications – rigid and flexible polyurethane foams for insulation and the automotive and furniture industries. We optimize our products in their applications throughout the entire life cycle based on market requirements. The innovation departments in the business entities and various corporate functions work on this across national boundaries to ensure that processes are improved, e.g., to save energy and cut product costs.

An example is the new process for manufacturing long-chain polyethers with a higher filler content for flexible foams with improved properties. Use of this product increases firmness while also permitting greater air circulation. We also provided application technology assistance for the energy-efficient manufacture of MDI in Brunsbüttel (Germany) using the AdiP process and the use of the product in standardized applications such as polymeric MDIs for rigid foams and specialties.

In the interest of enabling the transition to a circular economy, we deliver resources and contributions to basic research as well as making scaling to industrial scale possible. The previously mentioned use of CO₂ as a raw material, e.g., for cardyon®, and the support of collaborative projects such as Carbon4PUR are two examples of these activities.

Another area of focus is supporting the development of new digital tools for the R&D functions of all business entities and their implementation at our customers' companies. The aim here is to improve the efficiency of laboratory workflows on the one hand and to more efficiently develop new polyurethane products on the other.

 See "Use of Digital Technologies."

Innovation in the Solutions & Specialties Segment

The Solutions & Specialties segment serves a number of specialized industries. In the 2021 reporting year, the segment worked with our customers and partners to introduce and implement various innovations aimed at efficiency, sustainability, and promoting our specialties business.

This year, Covestro took an important step toward achieving our vision of becoming fully circular by launching the world's first climate-neutral* polycarbonate plastic. Mass-balanced raw materials made of biobased wastes and residues** using renewable energy were the key to unlocking this possibility. Firstly, an assessment of climate neutrality was completed by applying the mass-balancing method. This entails allocating the percentage of alternative raw materials used in the manufacturing process to the polycarbonates. Renewable energy is also

* The "climate neutral" label is the result of an assessment of a segment of the product's entire life cycle. In this case, we analyzed the period from resource extraction (cradle) to the factory gate based on ISO standard 14040. The analysis was then critically evaluated for plausibility by TÜV Rheinland AG, Cologne (Germany). The assessment also took into account biogenic carbon uptake based on preliminary data from the supply chain as well as the use of green electricity in the production process. Electricity usage was allocated based on what are known as guarantee-of-origin certificates. Carbon offset certificates were not used.

** Waste and residues of biological origin from agriculture, forestry, or associated industries.

used in the manufacture of mass-balanced products, so the carbon footprint* for the segment of the product's life from resource extraction to manufacture of the product to delivery to the factory gate could be assessed as climate neutral. Covestro's production sites in Krefeld-Uerdingen (Germany), Antwerp (Belgium), and Shanghai (China) are already certified for the production of mass-balanced products according to the ISCC PLUS methodology. The drop-in approach enables fossil-based raw materials to be replaced gradually without requiring that existing processes or workflows be changed. The resulting products are of equally high quality and perform the same as fossil-based polycarbonates.

The Decovery® line of products is a series of partially biobased resins for industrial, architectural, and packaging solutions. These products are based on renewable raw materials and have a smaller carbon footprint than fossil-based raw materials, whereas they have better properties, e.g., strong adhesive properties. They therefore provide a solid starting point for high-quality paints, wooden floor coverings, cladding, adhesives, barrier coatings, and top coats. This enables our customers to meet their environmental and sustainability obligations while using completely biobased materials. An example of this is the development of a biobased acrylic paper with a barrier coating that replaces plastic layers in paper packaging and was certified as completely recyclable by research institute Papiertechnische Stiftung (PTS), Heidenau (Germany).

The use of fossil-based raw materials can also be reduced in the manufacture of wood coatings for furniture. The furniture industry is at the front of the pack in introducing water-based solutions as an alternative to conventional products containing solvents. Bayhydur® eco 701-90, a hardener that is partly biobased, can be used to improve the sustainability of furniture without reducing coating performance.

Biobased polyesters for one-component (1K) stoving systems are likewise already available on the market, but the thermally activated polyurethane hardeners have been a limiting factor to date for maximizing the share of biobased material used while maintaining high performance. Covestro brought to market Desmodur® eco BL 7175, the first partially biobased, thermally activated polyurethane hardener based on an alternative isocyanate. Besides using a greater share of renewable energy in stoving systems, the product performs better than standard types.

In cooperation with our raw material suppliers, we have also expanded our portfolio to include Makrofol® und Platilon®, partially biobased polycarbonate films made of thermoplastic polyurethane, which are used especially in the textile and consumer goods industries. Moreover, our newly developed Desmopan® EC range includes up to 60% carbon from biomass. Compared to fossil-based thermoplastic polyurethanes, the carbon footprint of these products can be shrunk by more than 20% without compromising quality or performance. Based on this technology, we worked with a customer to develop a biobased foam midsole for a new outdoor trail shoe.

We developed a complete environmentally friendly coating solution in close cooperation with the wind turbine value chain including manufacturer Xinjiang Goldwind Science & Technology Co., Ltd., Urumqi (China), featuring low emissions of volatile organic compounds (VOCs) and excellent durability. It consists of a solvent-free gel coat, an aqueous 2K gel coat, and a polyaspartic-based protective coating for the leading edge. This solution was awarded the 2021 JEC innovation award, which has been the leading prize for the development and use of composite materials for a quarter century.

In terms of household appliances, the latest developments in rigid polyurethane foams for the refrigeration chain address current technical and regulatory challenges being experienced by OEMs. The goal is to improve the sustainability and insulating capacity of these foams and to increase the profitability of refrigerator manufacturing. Enhanced polyols, isocyanates, and catalysts enable refrigerators to be removed from molds more quickly while maintaining wall thickness, which results in higher productivity in production. In the construction industry and household appliance industry, our Baymer® rigid foam systems are a key component in the manufacture of metal composites. One target of this development is to improve the product's inherent flame-retardant quality to obtain a higher fire classification. Here also, the focus is on improving the sustainability of core polyurethane materials: halogen-free rigid foam systems developed on the basis of sustainable raw materials.

* Biogenic carbon uptake is included when calculating the carbon footprint.

On our way to becoming fully circular, we additionally upgraded our portfolio of cardyon®-based elastomers and found an alternative to our proven TDI amine types. The latter deliver improvements in health and environmental protection.

In addition to our goal of striving for a circular economy, improved industrial hygiene standards and meeting new EU safety standards are issues very relevant for the entire value chain. This goes hand in hand with improved workplace safety for employees involved in production and application. Desmodur® ultra and Bayhydur® ultra, Covestro's high-performance crosslinkers for coatings and adhesives, can be used directly in our customers' current formulations. By further reducing residual monomer content in compliance with the European Union's Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation, they unlock the potential for customers of increased product safety without sacrificing the performance of conventional 2K polyurethane coatings.

The RFM acquisition allowed us to also combine the crosslinking platforms of both units. Thanks to its unique chemical design, the NeoAdd™ PAX product family in particular offers excellent chemical and water resistance and outstanding adhesion to many different substrates. It does not require warming after use, which enables a higher degree of chemical resistance per smaller quantity of product. Moreover, the product is REACH-compliant and, due to its profile, requires reduced labeling compared with other products in the same chemical class. Along with several industry partners, Covestro is successfully introducing this new crosslinker product family in the packaging, industrial wood, and leather processing industries.

In view of the fact that an increasing share of vehicles is electric, the requirements of global transportation and energy markets for the properties and design of electronics applications are changing. We have refined our products to meet this need. An example is the lightweight Bayblend® polycarbonate/ABS blend, which is a suitable solution for various battery modules such as cell holders. It remains stable at both low and high temperatures and therefore guarantees optimal operating efficiency as well as meeting flame-retardancy standards. Covestro and EVBox B.V., Amsterdam (Netherlands), evaluated the use of polycarbonate made from mass-balanced biobased waste and residues for electrical charging stations. EVBox B.V. is scheduled to introduce Makrolon® RE charging stations for the European market in the year 2022.

At K 2016, the world's leading plastics trade fair, Covestro presented its vision of a seamlessly functional vehicle front end, which became a reality in the year 2020 in an electric vehicle using our Makrolon® polycarbonate product. Covestro developed an innovative automotive headlight concept from this material. Compared with conventional solutions, the new modular design has fewer individual parts, which reduces the number of assembly steps required as well as space and cost. On the whole, the new headlight prototype is over 1.5 kg lighter and therefore cuts emissions and expands the vehicle's reach. Thanks to the headlight's modular construction and use of a single type of plastic, the expense and effort of sorting and storing recyclable material also decreases. In addition, technologies for measuring distance and speed and cameras will be incorporated into the headlights in the future. This requires the use of heat-conducting materials to channel away heat generated by the electronics and light sources. With Makrolon®, heat management can be integrated directly into the housing of the new headlight concept.

Head-up displays are being used increasingly in the automotive industry to project images and information in the driver's field of vision. Covestro stepped up its collaboration with WayRay, a technology company specializing in augmented reality products headquartered in Zurich (Switzerland) to create these projections. The holographic optical elements developed by WayRay with Covestro's photopolymer film Bayfol®HX enable users to delve completely into virtual reality regardless of the distance to the object; at the same time, the necessary volume for the projection unit used is reduced. Bayfol®HX is also part of a partnership between Covestro and Meta Materials Inc., Dartmouth (Canada), which specializes in casting lenses. The goal is to use proven technologies to incorporate Bayfol®HX directly into prescription glasses for augmented reality. This highly integrated solution combines embedded functional elements with pre-formed prescription glasses.

In terms of the healthcare market, Covestro concentrates on developing application solutions that meet the growing demand for medical services worldwide. This is directly linked to the SDGs: after all, the products are intended to improve access to medical services in emerging economies. Examples here are the use of Makrolon® in new diagnostic tests for coronavirus infection and the use of Apec® in a newly designed breathable mask.

Electronic bandages worn by patients are already being used widely in various areas of medicine, such as patient monitoring and diagnosis, in line with the increasing digitalization of healthcare. The bandages make numerous vital sign monitoring applications possible and allow people undergoing medical treatment to move around freely. In conjunction with the Accensors division of InnoME GmbH, Espelkamp (Germany), Covestro used Platilon® TPU film and the Baymedix® thermoformable foam to develop a new concept for electronic bandages. These consist of two components: a single-use adhesive patch with sensors and a reusable patch containing the electronics (e.g., measuring technology and electricity supply).

New materials are being introduced for the electronics industry that have excellent insulating, mechanical, and weather-resistant properties and are therefore particularly suitable for the 5G network and the Internet of Things. With a growing portfolio of recycled plastics, customers can meet their own sustainability targets while maintaining high material standards. For applications such as high-speed networks, heat management solutions were developed that reduce weight and complexity while at the same time improving product life, recyclability, and the entire carbon footprint.

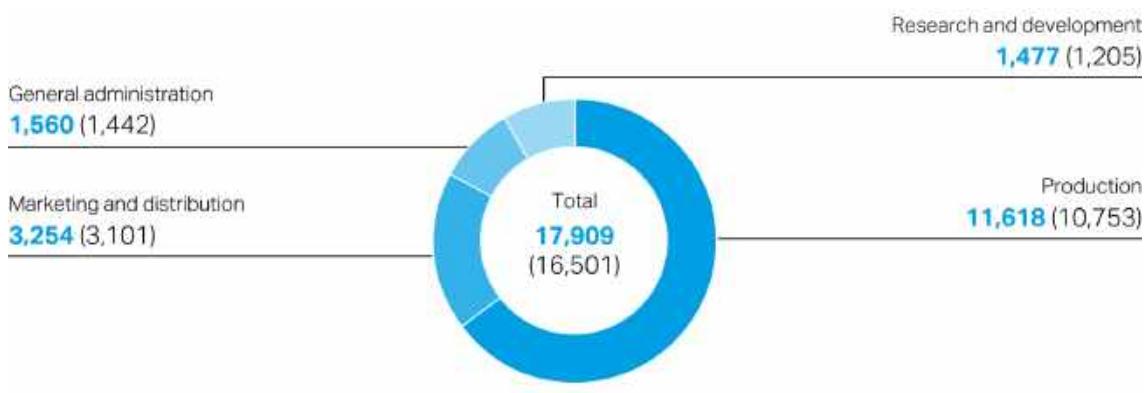
Employees

The multifaceted abilities and personal efforts of all employees contribute materially to Covestro's success. All employees have both the freedom and the mandate to act and contribute in line with the company's goals, values, and culture. Covestro thus promotes a working environment that is shaped by unconventional thinking, the effective exchange of knowledge, creative problem-solving, constructive feedback, and collegial cooperation. We aim to empower each of our employees to work to their full potential. Our managers are responsible for facilitating and supporting these objectives in close collaboration with our employees. In this way, we can work together to make an ongoing contribution to the company's success. Our social responsibility as a company and an employer is based on our unreserved commitment to supporting and fostering human rights in our sphere of influence. In the interest of encouraging a transparent exchange of information, employee questions and comments are collected via the Sli.do software – anonymous or not – and regularly addressed and answered live by the Board of Management in video messages and virtual global meetings like town halls meetings and WeAre1 talks. (These discussions are mostly unedited, apart from inappropriate language and statements targeting individuals.)

As of December 31, 2021, Covestro had 17,909 employees worldwide (previous year: 16,501). At the reporting date, the Group also had 581 employees in vocational training worldwide (previous year: 551), 568 of whom were based in Germany (previous year: 543).

 See note 9 "Personnel Expenses and Employee Numbers" in the Notes to the Consolidated Financial Statements.

Employees by division¹



¹ The number of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours. The figures do not include employees in vocational training.

Corporate Values and Corporate Culture

Covestro is proud of its corporate values, summarized as C³: curious, courageous, and colorful. Curiosity drives us to think beyond the horizon and allows us to create innovative and unexpected solutions for our customers. Courage helps us identify opportunities where others see limitations. Diversity promotes employee engagement and creativity; multiple viewpoints make us successful. These values guide all of the Group's employees and are reflected in their daily thoughts and actions.

Our "We Are 1" corporate culture is based on Covestro's values and behaviors, and is an integral part of our strategy. Our employees influence and shape this corporate culture. A culture filled with life by our employees enables us to pursue our strategy and therefore contributes to Covestro's success now and far into the future. Our corporate culture empowers employees, especially our management staff, to always act responsibly, to strive for continual improvement, to nurture collaborative teamwork, and to be outstanding leaders.

Our cultural dimensions and key behaviors

Acting responsibly	Wanting better	Winning together	Leading forward
We think and act like owners!	We innovate and transform!	We are passionate about our customers!	We help each other grow!
We solve problems and get the right things done!	We stay curious and learn!	We connect and collaborate!	We motivate and empower!
We take care of ourselves and others!	We are open-minded and inclusive!	We have courage!	We set a future direction!

Human Resources Profile and Focus

Digital transformation, demographic change, and the trend toward individualization – freedom of choice and self-determination – are changing our work and the ways we do it. Our human resources (HR) activities therefore focus on the development and implementation of initiatives that sustainably support our business success in view of these changes, while at the same time encouraging professional development and engagement across the board. In this context, our HR strategy is derived from our overarching Group strategy and is also aligned with our corporate values and understanding of a common corporate culture. The four strategic action areas of HR activity are employee engagement, skills development, leadership, and the work environment.

Due to the coronavirus pandemic, we have stepped up our efforts to enable employees to work remotely. In the future, we would like to continue to offer this work opportunity to interested employees and are continually evaluating the options and conditions to do so. A new company-wide works agreement signed in the 2021 fiscal year enables employees in Germany to work outside the office for up to 80% of their working hours per month in the future, if their responsibilities, the company's requirements, and their workplace are suitable for flexible working. This regulation will enter into force as soon as the coronavirus pandemic situation normalizes. Similar rules were also implemented at our other sites worldwide, some of which are more limited or more flexible than those in Germany.

In addition to other HR goals, Covestro's Board of Management is dedicated to promoting diversity, equity, and inclusion as well as ensuring our employees have the qualifications to meet the demands of today's continually changing working world. We are confident that employees can best unlock their full potential through new work experiences, exchanging information and teaming up with others, and learning independently with the help of the training resources provided by the company. Together, employees at all levels of the company set the standards for success, develop future-proof skills, and interact with one another on a basis of mutual respect. Workplace health and safety is a fundamental requirement.

The chief objective in incorporating the workforce of the Resins & Functional Materials (RFM) business acquired from Koninklijke DSM N.V., Heerlen (Netherlands), is to integrate these new employees into Covestro's work environment as quickly and completely as possible, both in terms of administrative and organizational concerns. Most of the necessary steps have already been taken or are in the planning stage. Various communications initiatives, workshops, and trainings have been held to meld the two corporate cultures and determine a unified strategy. These continue to be a regular part of the change management process. We regularly assess our employees' perception of our progress and the effectiveness of this cultural integration process using specialized employee surveys distributed in the acquired business. The surveys to date indicate a high degree of satisfaction and identification with Covestro while at the same time supplying us with important insights and jumping-off points for improvement. A total of 82% of participants agreed with the statement that they are proud to be part of the Covestro family.

Winning Qualified Employees and Promoting Covestro's Employer Brand

Our goal is to be an attractive employer to candidates worldwide. Covestro aims to recruit qualified employees for the company, ensure their professional and personal development, and retain talent for the long term. We therefore strive to reinforce our employer brand through diversity and raise awareness of our company among new target groups.

We take responsibility worldwide for the professional futures of young people and maintain close contacts with leading universities like RWTH Aachen University (Germany), the University of Pittsburgh (Pennsylvania, United States), and Tongji University in Shanghai (China). Covestro is also involved in international student networks, such as Enactus, a global organization for university students, and continue to steadily expand these partnerships. We bring in university students to take part in professional internships worldwide each year. This gives them insight into our company's operations as well as personal experience with Covestro as an employer. In fiscal 2021, we offered 364 internships around the globe.

We also take an active role in helping young people in various countries begin their professional lives by partnering not only with conventional colleges and universities, but also with organizations such as Stiftung Deutsche Sporthilfe, where we support top athletes in starting their careers. In addition to giving support to students, we provide alternative routes to joining the working world. In Germany, for example, 184 young people were able to start their careers with Covestro in fiscal 2021. Covestro offers vocational training in a number of scientific and technical professions. If the vocational training is completed successfully, trainees are guaranteed a position with the company.

During the coronavirus pandemic, Covestro organized events such as virtual career fairs in other countries in addition to these activities in Germany. These were held in conjunction with universities in Spain, including Universidad de Barcelona, Instituto Químico de Sarriá (IQS) in Barcelona, and University Rovira I Virgili in Tarragona.

As an employer, Covestro received major awards again in the reporting period. In the current ranking by Universum, Stockholm (Sweden), Covestro was named one of the top 100 employers for students of health and medicine in China and among the 50 best for young professionals in the sciences in Germany.

Promoting diversity and inclusion is a key factor in our appeal as an employer. In fiscal 2021, we again posted a year-over-year increase in the share of women in the trainee cohort in Germany. This effort is supported by other initiatives, including a change in our target group-oriented images for our "Junge Frauen in der MINT-Ausbildung" (Young Women in STEM) recruiting campaign in Germany. The abbreviation STEM stands for science, technology, engineering, and mathematics in paths of study and careers.

A campaign in the United States was also launched on LinkedIn on Women's Equality Day (August 26, 2021). Particularly notable is our participation in the Disability Equality Index. This is a benchmark comparison supporting inclusion and equality for people with disabilities in the United States. Covestro was recognized as one of the best employers for people with disabilities for the first time in this rating.

In addition, we improved our corporate website and revised our global career pages. As a result, all of our career websites were combined into one global site where candidates can find global as well as local content using our new intuitive navigation. The site features entry-level opportunities, information on Covestro as an employer, and, for the first time ever, a look at diversity, equity, and inclusion at Covestro. What is more, we pursued our "We Are 1" culture in fiscal 2021 by more tightly integrating the activities of the worldwide staff of our communications department and improving our social media presence. Each month, our global Instagram account @Covestro features a Covestro intern from a different country. We are increasingly using social media channels in other countries as well to increase our appeal as an employer and attract employees. In Mexico, we added Facebook as another recruiting channel in the reporting year, and in China an employee recommendation program was established on the WeChat platform to inspire production workers to apply for jobs with Covestro.

[Supplementary information >](#)

We welcome applications from all candidates, irrespective of their ethnic origin, nationality, religion, ideology, gender, age, disability, and/or sexual identity. We are committed to the principle of treating all candidates fairly and avoiding discrimination of any kind.

In the reporting year, we hired a total of 2,639 new employees worldwide, the majority (1,800 FTEs) of whom joined Covestro with the acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands).

New hires¹ by age group, gender and region in fiscal 2021

	EMEA		NA		APAC		Total	
	Absolute	%	Absolute	%	Absolute	%	Absolute	%
Women	309	11.7	88	3.3	221	8.4	618	23.4
< 30 years	87	3.3	21	0.8	35	1.3	143	5.4
30 to 49 years	158	6	37	1.4	165	6.3	360	13.7
≥ 50 years	64	2.4	30	1.1	21	0.8	115	4.3
Men	1,087	41.2	300	11.4	633	24	2,020	76.6
< 30 years	242	9.2	65	2.5	108	4.1	415	15.8
30 to 49 years	478	18.1	149	5.6	471	17.9	1,098	41.6
≥ 50 years	367	13.9	86	3.3	54	2	507	19.2
Total	1,396	52.9	388	14.7	854	32.4	2,638	100.0

¹ The number and percentage of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours. Percentages represent the distribution of new hires. Unlike in prior years, this figure does not include employees in vocational training.

One newly hired individual did not state their gender. This information was not included in the presentation above for data protection reasons.

A total of 1,109 employees worldwide left the Group in fiscal 2021. Employee attritions in the different regions and age groups varied widely in some cases. The number of attritions is below the prior-year figure, mainly due to the decline in divestments in the year under review.

Attritions¹ by age group, gender and region in fiscal 2021

	EMEA		NA		APAC		Total	
	Absolute	%	Absolute	%	Absolute	%	Absolute	%
Women	114	5.6	49	7.9	110	7.8	273	6.7
< 30 years	24	8.2	8	10.9	21	16.7	53	10.8
30 to 49 years	50	4.5	20	6.6	73	6.3	143	5.6
≥ 50 years	40	6.1	21	8.6	16	14.2	77	7.6
Men	437	5.6	162	7.6	237	6.7	836	6.2
< 30 years	48	5.1	19	8.7	45	12.5	112	7.4
30 to 49 years	147	4.3	53	5.6	156	5.8	356	5.0
≥ 50 years	242	7.0	90	9.5	36	7.7	368	7.6
Total	551	5.6	211	7.7	347	7.0	1,109	6.3

¹ The number and percentage of employees are calculated on the basis of full-time equivalents (FTEs). The attrition rate is calculated as the ratio of the total of all employer- and employee-initiated terminations, the end of fixed-term contracts, retirements, and deaths to the average number of employees (FTEs). Unlike in prior years, this figure does not include employees in vocational training. There were no attritions of employees who did not provide gender information.

[< Supplementary information](#)

Promoting and Developing Employees

Well educated and trained staff is crucial for ensuring that the company can develop further, and is essential to the company's success. We believe in lifelong learning and therefore support our employees in obtaining additional training, both personal and professional, in all career phases.

To this end, we offer a wide range of customized continuing education options for all employees through our in-house learning concept. Numerous in-person classes are available worldwide along with virtual training sessions, each of which focuses on a different target group. In-person training was possible only to a limited extent in view of the coronavirus pandemic. Courses were increasingly held online so that employees could continue to have suitable continuing education choices.

In the 2020 fiscal year, we began restructuring our training systems and strategy, an effort that continued in fiscal 2021. Improving self-directed learning was our priority to provide employees with flexible options for developing their skills. To this end, we focused on further updating our learning management system (LMS) by adding content and improving user friendliness. Another priority was to promote knowledge transfer within the company, to create in-house training sessions using suitable tools, and to train in-house trainers (train-the-trainer program). These initiatives serve to further develop educational content in-house and to analyze the content required (including e-learning content) to create a type of knowledge market. Learning on the job was further reinforced and a mentoring program launched at Covestro to ensure that knowledge is transferred during day-to-day operations.

Our people development activities include working on an updated, more agile approach to performance, development, careers, and our talent portfolio. For instance, we intend to introduce new initiatives in line with our "We Are 1" culture that are streamlined, transparent, and intuitive. The aim is for management staff, other employees, and the company to grow, deliver high performance, develop, and be successful now and in the future. This requires all of our employees, especially our management staff, to approach their work from a development perspective and be ready to learn new skills and approaches.

The ENGAGE global initiative launched in the fourth quarter of 2019 to measure and improve employee engagement continued again in the year 2021. All employees worldwide can provide feedback several times a year by filling out a voluntary, anonymous online survey. This helps us understand what is important to our employees in terms of work environment and day-to-day operations. The results are then shared transparently with the employees. Team discussions are held so that employees and supervisors can collaboratively decide on measures to continually improve the working situation.

The rate of participation in the employee survey conducted in May 2021 exceeded 70%. Over the time we have been conducting the surveys, we have observed a steady increase in the overall engagement score, which is derived from two questions about job satisfaction and recommending Covestro as an employer. In addition, there are also several other questions about various topics.

Compensating Employees Transparently and Competitively

Offering fair compensation in line with the market independent of gender and other diversity criteria is an essential prerequisite for recruiting, retaining, and motivating qualified employees. Covestro therefore combines a base salary reflecting the duties of a position with performance-related compensation components and extensive additional benefits to create an internationally competitive pay package, about which employees are informed transparently.

Tasks and responsibilities are classified on the basis of a job evaluation conducted without considering the individuals in the positions. For management functions, a standardized evaluation method is used if the job evaluation has not already been stipulated by a local collective agreement. Based on this classification, the amount of the base salary in all countries is aligned with standard compensation levels in the respective region. Regular compensation benchmarking is conducted to ensure this is maintained for the long term.

Through a bonus program, the Group-wide Covestro Profit Sharing Plan (Covestro PSP), we have made it possible for our employees to participate in the success of the company each year with a uniformly calculated bonus payment. In addition, management-level employees participate in the Prisma global compensation

program, which bases payments on the Covestro share price, including comparisons with our competitors, and in this way rewards the long-term changes in the company's share price. Since the tranche launched in the year 2021, this program has included a sustainability component comprising a reduction target for carbon emissions and other greenhouse gases such as nitrous oxide.

 See "Short-Term Variable Compensation" and "Long-Term Variable Compensation."

Furthermore, a global budget is available from which management-level staff can promptly grant individual performance awards to recognize outstanding conduct, commitment, and the performance of their employees in regard to our corporate values.

 See note 21 "Other Provisions" in the Notes to the Consolidated Financial Statements.

As in previous years, the Covestment share participation program was offered once again in fiscal 2021 and provided employees with the opportunity to purchase Covestro shares at a discount. A total of 99% of Covestro's global workforce in 16 countries is thus able to purchase Covestro stock at discounted prices. Around 40.4% of all eligible employees worldwide took advantage of this offer. The participation rate was 51.3% in Germany, 30.2% in the United States, and 50.8% in China.

 See note 21 "Other Provisions" in the Notes to the Consolidated Financial Statements.

[Supplementary Information >](#)

In the year under review, 69% of our employees worldwide (mainly in Central Europe, Brazil and most of our employees in China) were subject to collective bargaining or company agreements. At various country subsidiaries, the interests of the workforce are represented by elected employee representatives who have a right to be consulted on certain decisions affecting the workforce.

As of December 31, 2021, 77% of the workforce had access to a company pension plan. At all locations, personnel policy is aligned with the statutory requirements, such as those for severance, pre-retirement, and retirement payments. For instance, in Germany employees are able to transfer salary and time components (converted into money) into a long-term account. The accumulated balance can then be used at a later date for certain legally defined purposes such as pre-retirement leave.

[!\[\]\(f226af6ef132476e06319929c7baf716_img.jpg\) Supplementary information](#)

Promoting Diversity, Equity, and Inclusion

We work to make the world a brighter place. Diversity, equity, and inclusion (DEI) are key components of our corporate culture. We advocate for a working environment in which various skills, talents, experiences, and points of view are welcome, and everyone is treated with dignity and respect, both within and outside of our company. We also believe that a diverse workforce and inclusive environment are important drivers of innovation, sustainability, employee engagement, and business success. Our goal is to create an environment at Covestro in which all employees can give their best each and every day.

Covestro's DEI strategy is derived from our values and based on three core principles: Colleagues, Company, and Community. These are three essential factors for building a strong, diverse, equitable, inclusive, and innovative work culture at our sites. The Colleagues principle encompasses all activities that aim to make Covestro's workforce more diverse. These include building and maintaining our employer branding. The Company pillar brings together all of Covestro's efforts to promote inclusion, such as creating a global framework for employee networks. Our Community efforts comprise our partnerships with others to establish a foundation for more diversity in society. This includes activities such as our participation in the "Klischeefrei" (Cliché Free Initiative) initiative. The interaction between the initiatives of all three pillars will ultimately result in greater diversity and inclusion in the company. We promote engagement among our employees and external partners; support efforts to recruit, retain, and ensure the professional development of our employees; expand our supplier diversity; and contribute to directing Covestro's business strategy.

In the year 2021, Covestro published its first global report on diversity and inclusion, which presents information on our DEI strategy, as well as facts and figures, and regional examples documenting Covestro's progress in this area.

 Additional information is available at: www.covestro.com/en/company/strategy/people-and-culture

Our diversity, equity, and inclusion strategy



Colleagues – Build, Engage and Develop a Strong, Diverse Workforce

Employee networks are a key factor in involving our staff even more in driving diversity. We want to bring people with similar interests or concerns together in these networks, and promote an exchange of inspiration and ideas. Covestro has many different themed employee networks worldwide. The globally active UNITE network focuses on all issues of concern to the LGBTIQ (lesbian, gay, bi, trans, intersex, queer) community, and the Compass network is for employees interested in gender equity. In the 2021 fiscal year, our employees launched several new networks across the globe, including a women's network, a spinoff of UNITE in Mexico, a network for fathers in Germany and one for working mothers in China.

Company – Establish an Inclusive, Supportive Work Environment and Culture for Everyone

Covestro knows that companies are more successful when they pursue gender equity and is committed to greater representation of women. We strive to promote diversity and equity at all levels for all genders. In the year 2021, we stepped up our commitment in this regard, setting an independent global target for the entire workforce in addition to meeting legal requirements in Germany. The Board of Management has agreed to build a measurably more diverse work environment and to attain the goal of Covestro's total workforce comprising 40% women by the year 2029. At the end of the reporting year, women made up 23% of our worldwide headcount.

See "Promotion of Equal Participation of Women and Men in Leadership Positions."

At the end of the year 2020, Covestro joined the UN Women's Empowerment Principles (WEPs) initiative along with the UN Global Compact to promote gender equity. The initiative features seven defined principles that guide the participating companies in supporting women in the workplace and in society.

Despite the coronavirus pandemic, we sent a clear signal in favor of diversity and in May 2021 held a roadshow at our four sites in Shanghai (China) on the topic of diversity, equity, and inclusion. On May 18, 2021, we participated in the ninth Day of Diversity in Germany held by the "Charta der Vielfalt" (Diversity Charter) initiative with virtual sessions for all employees.

Community – Achieving Business Objectives through Community Engagement, Supplier Diversity, and Customer Interaction

Promoting diversity is the mission of society as a whole in which each of us shares part of the responsibility. Covestro takes this responsibility seriously and thus proactively promotes diversity. We are confident that we need to work shoulder-to-shoulder with various outside parties beyond pursuing our own activities. This is the only way diversity will be permanently integrated into the company as well as society. For this reason, we are further expanding our cooperation with various partners.

In Germany, we work with Väter gGmbH in Hamburg (Germany), which promotes work-life balance from the personal and business perspective. We also joined the "Klischeefrei" (Cliché Free Initiative) initiative in the year 2021 and its advocacy for career and degree choice free of gender clichés. Covestro supports the "Future of STEM Scholars Initiative (FOSSI)" by the American Institute of Chemical Engineers (AiChE) in New York (New York, United States). FOSSI grants scholarships to students with STEM degrees from historically black colleges and universities (HBCUs). These scholarships also include internships that help candidates develop leadership qualities and offer mentoring options in the participating companies. Covestro supports a FOSSI scholarship recipient with a grant of nearly USD 50,000 over a period of four years. In China, we hosted the Qiantan Forum, where various employers from the area around our office building in Shanghai came together for a panel discussion to promote the building of a diverse, equitable, and inclusive work environment.

Our diversity, equity, and inclusion goals and culture are being integrated further into the company by way of global action plans and regional implementation teams for all pillars and with the support of the CTO, who is the sponsor of these efforts and a member of the global DEI committee. Global decisions are additionally made by Covestro's full Board of Management.

[Supplementary information >](#)

Employee Metrics on Diversity and Internationality

As of December 31, 2021, Covestro had 17,909 employees worldwide comprising 83 different nationalities, 76.9% of whom were male and 23.1% were female. Members of the Board of Management and of the Executive Leadership Team (executives at the two highest contract levels below the Board of Management) represented nine different nationalities.

The majority of Covestro's employees (56.5%) worked in the EMLA region. The APAC region accounted for 27.6% of our employees, while 15.9% of the workforce was based in the NA region.

Employees¹ by employment status, region, and gender in fiscal 2021

	EMEA		NA		APAC		Total
	Women	Men	Women	Men	Women	Men	
Employees with permanent contracts	2,056	7,859	626	2,216	1,343	3,491	17,591
Employees with temporary contracts	76	129	–	2	39	68	314
Total	2,132	7,988	626	2,218	1,382	3,559	17,905

¹ The number of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours. The figures do not include employees in vocational training. Four employees worldwide did not state their gender. This information was not included in the presentation above, which results in deviations in the total number of employees.

Permanent employees¹ by type of employment and gender in fiscal 2021

	Women	Men	Total
Part-time	806	2,130	2,936
Full-time	3,419	11,665	15,084
Total	4,225	13,795	18,020

¹ The number of employees (headcount) is stated irrespective of their degree of employment. The figures do not include employees in vocational training. Four employees worldwide did not state their gender. This information was not included in the presentation above, which results in deviations in the total number of permanent employees.

The percentages of male and female employees by employee group have remained largely constant.

Percentage of employees¹ by employee group and gender in fiscal 2021

Employee group	Women	Men	Total
Board of Management and Executive			
Leadership Team	+0.1%	+0.2%	+0.3%
Middle management	+2.5%	+9.0%	+11.5%
Junior management	+6.7%	+17.1%	+23.8%
Skilled workers	+13.8%	+50.6%	+64.4%
Total	+23.1%	+76.9%	+100.0%
Employees in vocational training	+21.2%	+78.7%	+100.0%

¹ The number of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours. The figures do not include employees in vocational training. Four employees and one trainee worldwide did not state their gender. This information was not included in the presentation above, which results in deviations in the total number.

Percentage of employees¹ by employee group and age group in fiscal 2021

Employee group	< 30 years	30 to 49 years	≥ 50 years	Total
Board of Management and Executive				
Leadership Team	+0.0%	+0.1%	+0.2%	+0.3%
Middle management	+0.0%	+5.6%	+5.9%	+11.5%
Junior management	+0.8%	+15.3%	+7.7%	+23.8%
Skilled workers	+10.2%	+34.0%	+20.2%	+64.4%
Total	+11.0%	+55.0%	+34.0%	+100.0%

¹ The number of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours. The figures do not include employees in vocational training.

[< Supplementary information](#)

Designing Healthy Working Conditions and Work Models

Our basic principles include the constant improvement of working and organizational conditions and the identification of factors that either promote or are detrimental to health.

 See "Health and Safety."

In this context, we offer our employees an extensive selection of preventive health measures featuring programs and initiatives that promote good health. Our focus here is not only the health of individual employees but also current environmental influences, which we actively address, something that became particularly evident during the coronavirus pandemic. We offered virtual sessions and initiatives worldwide (including training on mental health, ergonomics, exercise breaks, etc.) to support employees in this new situation for most, both in working from home as well as in dealing with the changed framework conditions at the company's sites.

We are aware that our management staff has a significant influence on the performance and wellbeing of our employees. Against this backdrop, we launched an extensive program to help our executives to perform their roles as leaders and put in place a healthy work environment.

The corporate Human Resources function is aided in this effort by the corporate Group Health, Safety and Environment, Law, Intellectual Property & Compliance, and Corporate Audit functions. They ensure that all internal guidelines and all relevant standards and labor law requirements are met.

 See "Integrated Management System for Health, Safety, Environment, Energy, and Quality."

We also offer modern working conditions to our employees, so that they can be successful in a changing working environment and balance their professional and personal interests. In many countries, we exceed our legal obligations, e.g., by offering solutions such as flexible working hours, part-time work, working from home, and remote work, if this is compatible with operational requirements. A direct dialogue with our employees is also particularly important to us. In this regard, we take into account national and international notification duties.

At Covestro, our social responsibility as a company and employer also includes creating fair working conditions that are based on mutual respect and appreciation among employees and particularly ensure safety, health, and wellbeing in the workplace. Our sustainable personnel policy also features a strong social safety net for our employees.

 See "Social Responsibility," "Human Rights," and "Compliance."

Covestro actively raises awareness of healthy lifestyles with a stable committee structure for workplace health management and a range of initiatives and projects tailored to the individual needs of our employees. This is particularly true in regard to the challenges facing us as a result of digital transformation, demographic change, and the trend toward individualization, or freedom of choice and self-determination for individuals, which are all changing our work and the ways we do it. Against this backdrop, Covestro has decided to roll out a digital platform in the year 2022 to enable employees to participate in a broad range of health-promoting activities.

We offer comprehensive workplace health management whose focal points are continually developed further in response to health surveys. Our intention is to ensure that all employees have access to suitable and affordable health services such as sports programs, regular medical check-ups, help in overcoming illness and on-site medical care, particularly with regard to psychosocial counseling. The nature and scope of the health promotion programs differ around the world with regard to the respective country-specific level of development and access to national health systems. We offer our employees comprehensive measures aimed at preventing illness or maintaining good health, in many cases exceeding statutory requirements.

Covestro was named to the excellence level as one of the three best companies in the chemical industry in the Corporate Health Award (CHA) 2021 given by initiators EUPD Research Sustainable Management GmbH, Bonn (Germany), and Handelsblatt Media Group GmbH & Co. KG, Düsseldorf (Germany). The CHA is a prestigious award for excellent corporate health management in Germany in which companies are recognized for their above-average commitment to the health of their employees and pursuit of a sustainable HR strategy.

[Supplementary information >](#)

Work-Life Balance

We support work-life balance for our employees. For instance, partnerships with day care centers and financial support for vacation care for school-age children are among the solutions we offer to make combining work with family responsibilities easier. The programs offered by Covestro can differ from site to site.

Provided it is compatible with operational requirements, Covestro allows employees to take extended leave from work for personal projects such as scientific research, university studies, or other purely personal reasons. Employees around the world take advantage of this offer from time to time.

[**< Supplementary information**](#)

New, Flexible Working Environments for Improved Contact and Communication

Work environments, work content, and working methods are undergoing constant changes due to digital transformation and the increasing speed of change and complexity at our workplace. In order to meet these ever-changing requirements, Covestro provides a modern working environment that promotes flexible ways of working.

We call this work environment our C³ way of working based on our C³ values. At the heart of this philosophy is our conviction that all our employees, regardless of their status in the hierarchy, need working environments suitable to their duties to be able to work effectively. In this way, we want to enable changes in perspective and drive creativity in the company. Open-plan office environments combined with flexible work concepts encourage contact and the exchange of information across team and departmental boundaries and thus strengthen communication and interdisciplinary cooperation. Active change management prepares employees for and involves them in shaping new work environments. To achieve this, we provide not only the appropriate facilities, but also the IT infrastructure and media technology that works simply and intuitively.

Our philosophy applies particularly to cases such as moving into or creating new workspaces. We have already implemented this flexible working concept at many sites, including in Brazil, in Switzerland, in Taiwan, Greater China, in Thailand, and in China. Another new office building, which we use as our new corporate headquarters, opened for business in November 2020 at the Leverkusen (Germany) location. Due to the coronavirus pandemic and the protective measures we put in place, only very few employees have worked there in-person so far. The rest of our employees will gradually move into the building in conjunction with the return to other buildings once health protection regulations permit this.

Our managers play a special role in this system. In addition to implementing established leadership standards and modern work methods, they increasingly collaborate with their employees to develop flexible and customized solutions to support Covestro's efforts to extract maximum potential from this new work environment.

Health and Safety

The continuous improvement of a safe work environment is a key component of Covestro's corporate responsibility and a topical focus of our human rights due diligence activities. Covestro adheres to the applicable standards, domestic regulations, and laws. These regulations aim to prevent injuries, equipment breakdowns, and transportation incidents, as well as preserving the health of our employees in the workplace and during work-related activities. This also applies to partner companies (contractors) who work for our company within the scope of operational activities. Detailed rules and regular checks are instrumental in meeting these goals, as are safe production processes, plants, and transportation. Another priority is protection of the environment, and safe handling and use of products as part of our product stewardship.

Safety incidents that – under other circumstances – could have led to a High Potential Event (HPE) are examined using a set of criteria we have defined that includes their potential effects. Events classified as HPEs are treated similarly to events that have actually occurred and require detailed root cause analysis and communication. Promoting safety awareness among employees is essential for minimizing dangerous situations during day-to-day operations. In fiscal 2019, the Team Resource Management training was set up as part of our Safeguard program to further increase safety awareness and safe conduct among our staff. Due to the coronavirus pandemic, we could only begin to roll out the in-person training in the third quarter of 2021. It is scheduled to continue in 2022 and beyond.

For the 13th time, the CEO Health & Safety Award, now with a health component, was presented in the reporting year. All employees were encouraged to submit suggestions for improving occupational health and safety. The ideas presented were selected by a jury of internal experts, and staff was subsequently called on to choose their personal favorites. The most highly rated suggestions were recognized by our CEO at the virtual Covestro Health & Safety Day in September 2021.

Occupational Health and Safety

Our safety management activities take into account requirements and standards applicable around the world. We continually update our safety management system in line with our corporate culture. The safety of our employees and the protection of their health in the workplace are a focal point of this work, as is preventing potential effects on the environment and harmful health effects caused by leaks at production facilities, or accidents involving hazardous goods and other transportation accidents. Our integrated Health, Safety, Environment, Energy, and Quality (HSEQ) management system is a major contributor to achieving these goals.

An integrated information management system (IIMS) implemented throughout the Group exists for reporting and processing work-related accidents and incidents, as well as potential hazards. The IIMS makes it possible to identify trends in a timely manner so that corresponding short-term corrective and long-term improvement measures can be implemented if necessary. The company's safety experts, supported by external expertise if needed, analyze the background circumstances and the consequences. The results of the root cause analysis conducted after an incident occurs and the corrective measures taken are published throughout the Group in order to raise employees' safety awareness. As a result, everybody can better assess comparable hazards and situations and proactively remedy them. We continued to face enormous health and safety challenges due to the coronavirus pandemic in the year under review. Our Corporate Security professionals were the central point for consolidating information on country-specific conditions and reporting to the Board of Management. In this way, we were able to fulfill the requirements of the pandemic plan developed and implemented by Covestro. Local measures supplemented globally applicable preventive measures, and Covestro introduced various measures to help prevent coronavirus outbreaks at Covestro's sites.

Safety and Accident Prevention

Over the long term, we want to prevent all workplace accidents and work-related occupational diseases. For this reason, we regularly analyze the accident rate by site as well as by region and type of accident. The fluctuations observed indicate to us the structural differences that are discussed in analyzing and determining measures to be taken with the sites and segments, and adapted to local requirements.

Activities that led to accidents in the year 2021

Recordable incidents	Movement (stumbling/ falling)	Mechanical work	Chemical contact	Traffic and transportation	Other	Total
Employees	18	25	6	1	3	53
Contractors	5	10	1	0	5	21
Total	23	35	7	1	8	74

We classify accidents at Covestro according to the American Society for Testing and Materials (ASTM) standard E2920-14 to devote particular attention to the life-threatening or life-changing accidents among the entirety of the accident data. In the year 2021, three contacts with chemicals and one hand injury were classified as serious.

Covestro processes recordable workplace accidents and illnesses involving the company's own staff and contractors as part of the recordable incident rate (RIR) and lost time recordable incident rate (LTRIR), as per Standard 1904 issued by the U.S. Occupational Safety and Health Administration (OSHA). The RIR is calculated as a ratio of the total number of recordable workplace accidents and illnesses to hours worked (standardized to 200,000 working hours per year). The LTRIR is calculated as a ratio of lost time in days to the same hours worked figure. We calculate the number of hours worked by our employees based on the number of employees in the Group and multiply this figure at country level by the average working hours in the member states of the Organisation for Economic Co-operation and Development (OECD) or the International Labour Organization (ILO). If no OECD or ILO data is available, then we use the average number of hours worked at Covestro.

The number of hours worked by our contractors is calculated using a methodology that includes various categories for recording working hours, broken down by electronic or manual timekeeping or obtained using supplier invoices. The figure can also be calculated based on valid assumptions (estimates). At sites with fewer than 50 Covestro employees, no contractor working hours are counted, so these are not included in the incident rates calculation. We apply controls and other measures at the global level as well as individual site level to prevent possible errors in calculating contractor working hours. Implementation of this system continued in fiscal 2021.

In the 2021 fiscal year, we documented 31.8 million total hours worked (THW) for our employees (previous year: 29.5 million THW). For contractors, 15.6 million THW (previous year: 16.7 million THW) were reported. This results in the following rates according to OSHA:

Work-related accidents¹

	2020	2021
Recordable incidents		
in relation to Covestro employees	35	53
in relation to contractor employees ²	26	21
Recordable incident rate (RIR)		
in relation to Covestro employees	0.24	0.33
in relation to contractor employees ²	0.31	0.27
Recordable incidents in connection with days lost		
in relation to Covestro employees	20	33
in relation to contractor employees ²	19	15
Lost time recordable incident rate (LTTRIR)		
in relation to Covestro employees	0.14	0.23
in relation to contractor employees ²	0.23	0.19
Fatal injuries		
in relation to Covestro employees	0	0
in relation to contractor employees ²	0	0

¹ Includes work-related accidents and illnesses taking into account all fully consolidated companies, provided that they are part of the consolidation scope.

² Employees of partner companies contracted by Covestro whose accidents occurred on one of our company premises.

In the reporting year, the number of workplace accidents involving our employees went up to 53 (previous year: 35), increasing our employees' RIR by 0.09 points. The RIR of our contractors' employees declined by 0.04 points.

Process and Plant Safety

We aim to ensure the safety of processes and plants in a way that avoids unacceptable risks to our employees, our neighbors, and the environment. We therefore conduct extensive, systematic safety assessments at regular intervals. Loss of Primary Containment (LoPC) is an early indicator for all Covestro plants, which is reported consistently throughout the world and is integrated into the Group's safety reporting.

Covestro applies the German Chemical Industry Association's (Verband der Chemischen Industrie, VCI) guidelines on documenting plant safety performance indicators. The reporting criteria are thus aligned with the updated and globally harmonized definition by the International Council of Chemical Associations (ICCA). A LoPC event comprises

- the release of chemicals classified according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) exceeding the defined volume thresholds within one hour,
- a reportable injury according to OSHA criteria to an employee or contractor as a result of product release or the release of energy,
- the release of energy (e.g., fire, explosion) that leads to damage with direct costs totaling more than €2,500,
- an evacuation officially declared outside the plant.

We use the LoPC incident rate (LoPC IR) to determine the number of LoPC incidents per 200,000 TWH per year by Covestro employees and contractors. In the year 2016, the ICCA adjusted the volume thresholds used to identify incidents and published these changes, which are binding for its members starting in the year 2020. We applied these volume thresholds at Covestro so that our statistics would be comparable within the chemical industry and the benchmark. Very low volume thresholds mean that seven less significant incidents are systematically documented and investigated as LoPC events. For instance, the volume threshold for chlorine is one kilogram. In the reporting year, our LoPC IR was 0.69 (previous year: 0.64).

Every LoPC incident as well as minor and near-miss incidents are carefully analyzed to determine their causes, and the results and corrective actions taken are publicized throughout the Group. The criteria (e.g., low thresholds or nonhazardous substance releases) were selected so that even releases of substances or energy that have no impact on employees, neighbors, or the environment are systematically recorded. This contributes to maintaining the integrity of our facilities. The global exchange of experiences relevant to safety is intended to help maintain the existing high standard of procedural and plant safety within the company. Globally binding standard processes and their uniform implementation also contribute to this effort.

Corporate Security

The safety and security of employees, plants, data, and information as well as uninterrupted workflows and processes are particularly important to Covestro. This is why Covestro's safety strategy systematically focuses on meeting these safety and security targets. The corresponding duties and responsibilities are assigned to various departments of the responsible corporate functions. The corporate functions of Law, Intellectual Property & Compliance, Information Technology & Digitalization, and Production Management therefore have special authority to effectively counter current and future risks and threats, especially those that are virtual or digital. Decision-making and management bodies focusing on risk, compliance, and crisis management as well as on information security management have been established.

[Supplementary information >](#)

Hazard Avoidance

Repairs, inspections, and technical modifications frequently require work that is potentially hazardous. Such jobs are performed individually or pooled and performed at one time during plant downtimes, which are planned well in advance. A work permit process is applied here. In addition to a precise description of the work to be performed, this includes a hazard assessment and a determination of the required safety and protective measures. All individuals involved in the work are informed of these parameters and must confirm receipt of this information with a signature. The responsible facility, participating technical crews, and, if necessary, additional safety officers monitor adherence to the measures and safe work performance.

[**<Supplementary information**](#)

Environmental and Transportation Safety

We work continually toward maximum safety during transportation of our products. We report all incidents at all sites operated by Covestro worldwide in line with our internal directives. These are documented according to defined criteria such as quantity of loss of containment, material hazard class, degree of personal injury, and blocked transportation routes. In the case of certain hazardous materials, we record and categorize all leaks starting with as little as five kilograms, according to our Corporate Commitment. Global events on transportation safety are held at regular intervals. Here, corrective measures are developed and implemented based on actual incidents, and tried-and-tested approaches are exchanged.

Product Stewardship

To Covestro, product stewardship means comprehensively evaluating health, safety, and environmental risks in connection with the use and handling of our products. We want our products to be safe throughout their entire life cycle – from research to production and marketing to their intended use by customers and all the way to disposal. Product stewardship is also a focus of our human rights due diligence activities.

Monitoring the quality of our products and their suitability for particular applications is anchored in our corporate functions and segments. Safe transportation, qualification for specifically regulated applications, and marketability are centrally managed at Covestro, as is the obligation to report to the Board of Management on these matters.

The safe use and application of our products have high priority. It is very important to us to communicate product safety information transparently and comprehensively. In addition to the documents required by law, we therefore provide supplementary information and offer training as part of the global product strategy of the International Council of Chemical Associations (ICCA). Furthermore, specially trained employees throughout the company work closely with suppliers, customers, industry associations, and the public. Covestro thus aims to ensure the effective communication and observance of health, safety, and environmental information along the entire supply chain.

Management of Product Stewardship

Product stewardship involves both compliance with statutory requirements and voluntary commitments. Here we also take into account the so-called precautionary principle as explained in Principle 15 of the Rio Declaration of the United Nations and communication COM(2000) 1 of the European Commission. This important means of protecting consumers and the environment within the context of risk management may be used in special cases in which, according to an objective and comprehensive scientific evaluation, material or irreversible harm to people and the environment may occur, but the risk of this cannot be determined with sufficient certainty. In this regard, we follow the corresponding principles of the European Commission when applying the precautionary principle. These include especially the proportionality of the protective measures taken, an examination of the benefits and the disadvantages of all relevant options, as well as the review of the measures taken in light of new scientific developments. Arbitrary decisions cannot be justified by invoking the precautionary principle.

As a contribution to the safe handling and use of chemicals, risk assessments are carried out applying recognized scientific principles such as those described by the European Chemicals Agency (ECHA) in its Guidance on Information Requirements and Chemical Safety Assessment. A determination is made based on a hazard assessment and exposure estimation as to which additional information is required for the risk characterization of a product.

All product groups at Covestro undergo a multiple-step product assessment process. At first, we identify chemicals that are subject to statutory regulations and document the corresponding regulations. We then examine the risk potential of our products. During this process, we also identify substances for which only limited use or marketing are permitted based on the applicable laws and regulations. These include, for example, Substances of Very High Concern (SVHC) as classified in accordance with the European Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and substances covered by the European regulation on greenhouse gases. Substance compositions in all regions are checked with the help of IT systems against lists of regulated substances so that noncompliance with regulatory requirements would be identified reliably. Should the assessment or new findings reveal that it is not safe to use a certain chemical, we take the necessary risk mitigation measures. Those can range from technical measures such as protective gear and revised application recommendations to the withdrawal of support for a certain application or the substitution of a substance. In this case, an adequate replacement must be sought which can be produced in an economical and technically feasible way. Finally, we produce safety data sheets and labeling for all chemicals in up to 40 different languages, including chemicals that are not subject to any legal obligation. In this respect Covestro also exceeds the statutory requirements by making these safety data sheets publicly available.

We collect, document, and analyze all information about the safe and compliant use of our products in a global information system, which provides the basis for further improvements. This includes product surveillance and reporting on product-related and compliance incidents. Our global regulations for the Group contain rules and

guidance on when and how this information is to be used. For example, this has helped us improve the information on the safe handling of our products and provide customers with specific training. Furthermore, workshops, and online training sessions for our employees contribute to solidifying the understanding and importance of product stewardship in the company.

For fiscal 2021, we know of no material incidents of noncompliance with regulations or voluntary codes – either concerning the health and safety impacts of products and services, or relating to product information and labeling.

The optimization of products and processes is a continuous task of the chemical industry and is integral to our commitments as part of the Responsible Care™ initiative. This is an initiative by the chemical industry that aims for continual improvement by companies in the areas of environment, safety, and health, regardless of the legal requirements. We also participate in the further development of scientific risk assessments through our involvement in associations and initiatives. International associations such as the European Chemical Industry Council (Cefic) and ICCA are working to improve the scientific assessment of chemicals and research new testing methods. Moreover, they monitor implementation of legal regulations. Covestro is actively involved in industry association activities. Furthermore, we endorse the initiatives of the World Health Organization (WHO) and the European Union (EU) to improve health and the environment, for example with the further development of human biomonitoring through an alliance with the German Chemical Industry Association VCI and the German Federal Ministry of the Environment.

Implementation of Regulations and Voluntary Programs Pertaining to Chemicals

Covestro adheres to the applicable regulations pertaining to chemicals, such as REACH in Europe and the Toxic Substances Control Act (TSCA) in the United States. These regulations are aimed at protecting human health and the environment from the risks posed by chemicals, and thus shape our activities as a manufacturer, importer, and user of chemicals. We have established internal regulations to adequately address the range and complexity of the relevant requirements. They guide our employees in fulfilling regulatory requirements.

Substances registered according to REACH are assessed by regulators. This can result, for example, in additional testing requirements, new risk management measures, or inclusion in the REACH authorization or restriction procedure. A number of Covestro substances are also affected by this procedure, which restricts the use of particularly hazardous substances or can lead to their substitution or prohibition. The restriction on diisocyanates published in the Official Journal of the EU in August 2020 is one example of a restriction. In this case, labeling of diisocyanates had to be modified by February 2022, but this will not affect their availability. However, all users of products containing diisocyanates at a concentration of more than 0.1% of the residual monomer must be trained in their use by August 2023. Covestro supports this process and advocates for the practical and effective implementation of this requirement, for instance in the preparation of training materials. As part of the European chemical industry, we furthermore made a voluntary commitment to review and improve the REACH registration dossiers by the year 2026.

We ensure that substance assessments comparable to those meeting the high standards of REACH or the TSCA will also be applied at Covestro sites that are not subject to these regulations. The relevant procedure is established in the corporate regulation on "Product Stewardship" in the attachment entitled "Substance Information and its Availability." When it comes to purchased substances, we are dependent on information provided by our suppliers.

Another example of our commitment to Responsible Care™ is the worldwide support we provide for customers for safely handling large quantities of reactive products through tank-farm safety assessments.

Covestro has also committed to compliance with animal welfare policies during toxicological and ecotoxicological testing.

⊕ Additional information is available at:

<https://solutions.covestro.com/-/media/covestro/corporate/productsafetyfirst/resources/statement-on-animal-studies-en.pdf>

We support the Global Product Strategy (GPS), a voluntary commitment by the chemical industry initiated by the ICCA. Its objective is to improve knowledge about chemical products, especially in emerging countries and countries of the Global South, and thus increase safety in the handling of these products. GPS is accessible at Covestro through the Product Safety First internet portal and is available worldwide. On this website, we inform our customers and other interest groups about safety-relevant properties and the safe handling of our products.

Substances That Are the Subject of Public Debate

Covestro is following the scientific discussion about the chemical bisphenol A (BPA), an important raw material for various plastics, e.g., polycarbonate. Critics, but also some authorities, are concerned that risks could result for users and the environment if traces of BPA are released from products.

Based on numerous scientifically valid and high-quality studies, Covestro is confident that BPA can be safely used in all areas of application supported to date. By participating in regulatory processes, Covestro works actively to dispel uncertainties and answer open questions. In addition, we continue to advocate for more objective discussions based on all of the scientific data in cooperation with the PlasticsEurope association, the American Chemistry Council (ACC), and the China Petroleum and Chemical Industry Federation (CPCIF). Covestro is involved in the discussions and provides information to customers and the public on this issue through associations, on the Covestro website, and through direct contacts.

Per- and polyfluoroalkyl substances (PFAS) are a subject of public discussion due to possible undesirable effects on people and the environment. PFAS are essential chemicals in a number of mainly industrial products, including many high-tech applications, often on account of their ability to resist heat and chemicals. PFAS are a challenge for all segments of industry, including chemicals, because various regulatory initiatives intend to limit the use of PFAS.

As a user of PFAS, we monitor the regulatory debate and support proportionate, implementable, and enforceable regulations based on robust scientific results and a reliable assessment of risks. We already include in our safety data sheets in the EU any PFAS that are classified as SVHC by REACH and are contained in our products at a concentration of more than 0.1% by weight.

Environmental Impact of Own Operations

Our business activities also have an impact on the environment: Covestro uses water for, among other things, cooling and cleaning, processes that result in wastewater containing various substances. Our production processes also generate waste, which we dispose of according to local guidelines or hire licensed companies to dispose of or recycle. In addition to the aforementioned greenhouse gases, other emissions into the air are also released into the atmosphere as permitted by the relevant authorities.

 See "Climate Neutrality."

Water and Wastewater

Covestro takes a holistic view of water as a resource: We take not only our water usage and the related problems of water scarcity and quality into consideration, but also the wastewater we generate and the growing concern about plastic waste in the oceans. This is underscored in our Corporate Commitment on Water.

 Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

We assessed risk at our production sites to examine water availability, quality, and accessibility. In our production activities, we strive to use water several times and to recycle it. Covestro primarily generates wastewater from once-through cooling systems and production. All wastewater is subject to strict monitoring and analysis according to the applicable legal regulations before it is discharged into disposal channels.

 See "Water Usage."

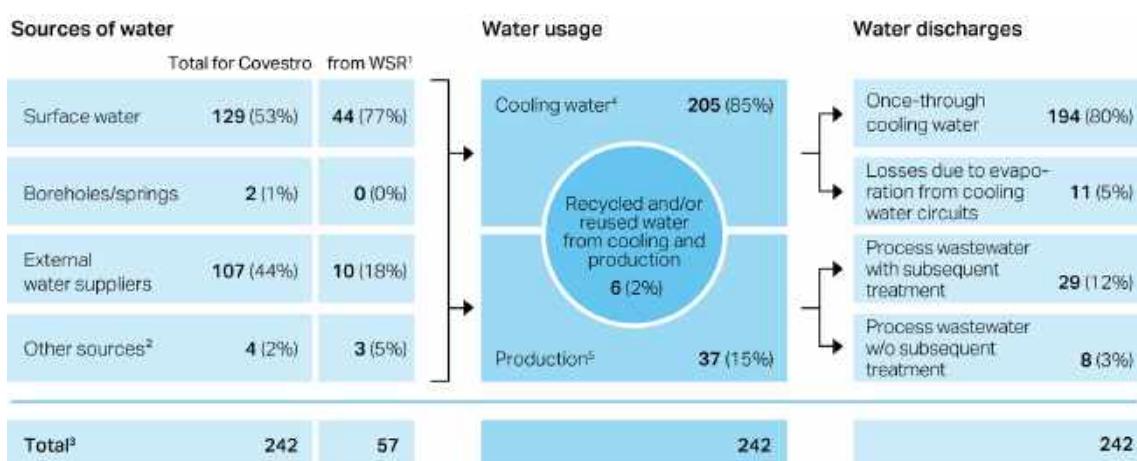
[Supplementary information >](#)

Water Usage

The availability and accessibility of clean water is vital for our production sites. As part of our Corporate Commitment on Water issued in the year 2017, we initiated and have continually refined a global risk assessment of all of our production sites covering water availability, quality, and accessibility.

Since last year, our risk-based water approach has included potential regulatory risks at our production sites in addition to physical risks such as water scarcity and quality. This approach is followed at main production sites currently exposed to a high risk of what is known as water stress and, during the reporting year, was further rolled out to other sites identified in the course of the update. Water stress includes water scarcity as well as other factors such as water quality and access to water. We identify locations subject to water stress using recognized tools, such as the Aqueduct Water Risk Atlas by the World Resources Institute and the Water Risk Filter by the World Wide Fund for Nature (WWF). In addition, we have internal exchanges with the experts at each site. Sites located in current water stress regions account for 24% of our total water usage. By analyzing the local water management at the sites, risks can be spotted at an early stage and potential for improvement can be identified. For instance, the production site in Antwerp (Belgium) launched a program in the year 2018 to reduce water consumption and increase the percentage of recycled water used. Moreover, in the year 2021, the site along with 50 other chemical and pharmaceuticals companies joined a project called Learning Network Water organized by Essenscia, the Belgian Federation for Chemistry and Life Sciences Industries. The project aims to develop action plans for water protection and circular water usage and to provide a platform for members to learn from one another.

Use of water in the year 2021 (million cubic meters)



¹ Water stress regions taking into account overall physical risks such as water shortages, water scarcity, and flood risk, not including the acquired Resins & Functional Materials (RFM) business.

² E.g., rainwater.

³ Differences between the volumes of water drawn and discharged can be explained in part through unquantified evaporation, leaks, water used as a raw material in products, and condensate from the use of steam as a source of energy.

⁴ Also includes water for irrigation purposes.

⁵ Total from production processes, sanitary wastewater, and rinsing and purification in production.

At 242 million cubic meters, overall water usage in the Group is slightly below the previous year's figure. One reason for the decrease is improved water monitoring at one of our US sites. The majority of the total volume of water used by Covestro (some 80%) is once-through cooling water. This water is only heated and does not come into contact with products. It can be returned to the water cycle without further treatment in line with the relevant official permits. The total volume of once-through cooling water was 194 million cubic meters in the reporting year.

Some of the water used can be recycled in various ways. For instance, recycled water can be used again in the same process multiple times, e.g., for cleaning or cooling purposes. It is also possible to reuse water from upstream processes in subsequent steps. This permits corresponding quantities of fresh water to be conserved each year. In the reporting year, the volume of recycled water used stood at 6 million cubic meters (previous year: 5 million cubic meters).

We currently calculate our total water consumption according to GRI Standard 303-5 (2018), which involves determining the difference between total water used and total water discharged. In the reporting year, total water usage is calculated at -0.5 million cubic meters. The negative figure is explained by sources such as water arising from reactions during chemical production processes.

Our goal is to minimize wastewater emissions, which depend largely on our production volumes and the current product portfolio, as much as possible.

The volume of process wastewater saw a year-over-year increase of 5%. The proportion of process wastewater purified or otherwise treated (e.g., incinerated) at a wastewater treatment plant operated by Covestro or a third party amounted to 78% worldwide. Following an analysis, another 22% was categorized as environmentally safe and returned to the water cycle. In the reporting year, the percentage of evaporation losses rose to a total of 11 million cubic meters.

Various emissions into water also increased somewhat in line with the higher volume of process wastewater.

Emissions into water (1,000 metric tons p.a.)

	2020	2021
Phosphor	0.02	0.03
Nitrogen	0.27	0.29
TOC ¹	0.46	0.55
Heavy metals	0.0041	0.0056
Inorganic salts	727	737

¹ Chemical oxygen demand (COD), calculated based on total organic carbon (TOC) values: 1.65 (TOC × 3 = COD).

Work on the collaborative Re-Salt project, which was launched in the year 2016 by the Federal Ministry of Education and Research (BMBF) for the purpose of recycling salt-laden industrial process water, was successfully completed. Another research project called RIkovery was launched to carry on salt water recycling activities. This project supported by the BMBF builds on the successful Re-Salt project and continues research into the treatment of process wastewater. The goal is to further increase concentrations and reduce the amount of energy required so that even more salt and water can be recovered. Over the three-year project term, Covestro is working with additional industrial, plant engineering, and research partners to achieve goals including taking the next technological step to increase the circular usage of process wastewater.

[< Supplementary information](#)

Waste

From an economic considerations perspective, Covestro's manufacturing processes apply a maximum of efficiency when it comes to the use of materials; compared with other chemical companies, these result in relatively small volumes of waste. We observe and evaluate our manufacturing processes on an ongoing basis to minimize material consumption and disposal volumes as much as possible. This is achieved by safe disposal channels with separation according to the type of waste and economically expedient recycling processes. However, production fluctuations, building demolition and refurbishment, and land remediation can also influence waste volumes and recycling paths. In fiscal 2021, the total volume of waste we generated increased. The reason was mainly additional volumes of hazardous production waste, particularly the waste volume from the acquired Resins & Functional Materials (RFM) business. We determine specific opportunities for waste reduction with targeted projects and put these into practice within the context of our existing manufacturing processes. For instance, in the manufacturing process for our toluylene diisocyanate (TDI) product, our Dormagen site began testing a new procedure that significantly reduces the resulting process waste volumes in the year 2019. The insights gained from this project can be transferred to additional plants at other Covestro sites. Our large-scale TDI production facility in Shanghai (China) is currently being equipped with this technology after a pandemic-related break.

Covestro also supports the reuse and treatment of its materials in accordance with economic and environmental criteria. Some of the waste created by our production processes with a high heating value is burned as fuel to generate steam for our production facilities.

Our commitment to the topic of sustainability plays an increasingly vital role with regard to the purchasing of packaging materials. We have implemented an approach to address this: When procuring packing materials, Covestro reviews in principle whether and to what extent used or reconditioned packaging can be used in the place of new packaging. For instance, Covestro uses post-consumer reground plastic barrels for waste transportation. Drums made of recycled plastic replace plastic drums from virgin material. Thus, Covestro uses fewer raw materials, reduces emissions, and has established the initial building blocks for a circular economy in the area of transportation and packaging.

Covestro also supports initiatives such as Operation Clean Sweep (OCS) that focus on preventing plastic particles from entering waterways and oceans. We have introduced global measures to minimize the loss of plastic pellets on the way from production to the finished product at our customers' locations. In fiscal 2018, we urged our partners in the supply chain to join the initiative; at the same time, we are continually monitoring its progress. However, due to the pandemic we were unable to review our progress in fiscal 2021. Covestro started work on a proposal for an external certification system for the entire plastics value chain in cooperation with the PlasticsEurope association and other members in the 2019 fiscal year. The initial test runs were held in the year

2021, and the system is being rolled out to PlasticsEurope members starting in fiscal 2022. Covestro had already added the topic of OCS to Covestro's health, safety, environment, energy, and quality (HSEQ) certifications in the year 2020. The next step will be to review and assess the relevant sites using the measures developed and obtain an independent certificate no later than the end of the 2023 fiscal year. The results will be documented in a report. The aforementioned list includes systematic environmental aspect analyses, risk assessments, preventive measures, targets, improvement measures, and employee training. Corrective measures must be taken in the case of identified deviations. We are further reviewing how we can make OCS targets part of the sustainability issues covered by contracts with logistics partners.

[Supplementary information >](#)

Waste and Recycling

In nearly all countries, the law stipulates exhaustive reporting on waste volumes and waste streams, a requirement complied with accordingly by Covestro's sites. In Germany, for example, there are waste-tracking procedures between the source of the waste and its disposal that enable end-to-end traceability of the waste flows. In fiscal year 2021, we revised the classification of waste according to waste categories and the corresponding methods of disposal in our in-house waste data reporting to better reflect topics such as the circular economy. Our definitions were also better harmonized worldwide. Only the definition of hazardous waste remains subject to locally applicable rules. Based on this documentation, we prepare and evaluate our waste report, which is published annually. This year, other waste disposal categories were introduced to obtain a more granular picture of our waste management activities.

Waste generated (1,000 metric tons p.a.)

	2020	2021
Total waste generated	175	264
Non-hazardous waste generated	68	75
Hazardous waste generated ¹	107	189
of which hazardous waste from production	103	184

¹ Definition of hazardous waste in accordance with local laws.

Waste by means of disposal (1,000 metric tons p.a.)

	2020	2021 ¹
Total volume of waste treated	175	264
Recovery	49	205
recycled waste	49	61
thermally recycled waste (with energy recovery) ²	–	144
Disposal	123	48
incinerated waste (without energy recovery)	106	33
hazardous waste removed to landfill	3	3
nonhazardous waste removed to landfill	14	12
Other³	3	11

¹ A variance between the volume of waste generated and waste disposed of may arise due to the different times the waste is generated or disposed of and any resulting internal temporary storage.

² New reporting category from the 2021 reporting period onward. These volumes were previously reported in the incinerated or recycled waste category.

³ Disposal method cannot be unambiguously allocated to the above disposal/recovery methods, e.g., chemical-physical waste treatment.

Air Quality

In addition to greenhouse gases, Covestro's business activities result in other emissions into the air.

See "Circular Economy and Climate Neutrality" and "Production and Value Creation."

These other emissions into the air stem mainly from burning fossil fuels in order to generate electricity and steam. Emissions are also recorded and analyzed as part of determining the Group's environmental impact. The impacts are assessed annually in the environmental management process with the Chief Technology Officer (CTO). In terms of other air emissions, the reported NMVOC emissions rose in particular. These additional emissions resulted chiefly at the sites operated by the Resins & Functional Materials business (RFM) acquired from Koninklijke DSM N.V., Heerlen (Netherlands).

Other important direct air emissions (1,000 metric tons p.a.)

	2020	2021
CO	0.28	0.31
NOx	0.59	0.62
SOx	0.04	0.04
Dust	0.10	0.10
NMVOC ¹	0.13	0.16
ODS ²	0.0001	0.0002

¹ Non-methane volatile organic compounds (NMVOC).

² Ozone-depleting substances (ODS).

[< Supplementary information](#)

Sustainability in the Supply Chain

Covestro regards adherence to sustainability standards within the supply chain as a fundamental factor in value creation and an important lever for minimizing risks. Working conditions and health effects on workers in the supply chain are particularly important to us, which is why they are a focus of our cross-divisional Human Rights Task Force. In addition, both current and new Covestro suppliers must meet not only economic standards but also social, ethical, and environmental standards as well as those related to corporate responsibility. All required standards are defined in Covestro's Supplier Code of Conduct, the basis for our collaboration with suppliers; the Code is available online in 13 languages. The Code is derived from the principles of the UN Global Compact and our Corporate Commitment on human rights. It is integrated into the electronic ordering systems and contracts across the Covestro Group. New and renewed supply agreements in particular generally contain special clauses requesting that suppliers adhere to the sustainability requirements outlined in the Code of Conduct and entitling Covestro to verify compliance.

 See "Human Rights."

 Additional information is available at: www.covestro.com/en/company/profile/procurement/sustainability-in-procurement/supplier-code-of-conduct

Covestro has set ambitious measurable targets through 2025 aimed at systematically promoting sustainability in supplier management. All suppliers must comply with our code of conduct, which they commit to by accepting the conditions of our purchase orders or contracts. In addition, relevant suppliers* with a regular purchasing value exceeding €100,000 per year are assessed. In the year under review, around 93% (previous year: 95%) of our total purchasing value was attributable to these target-relevant suppliers. They comply with Covestro's sustainability requirements by meeting the minimum result as defined by us in the supplier evaluations described below. In addition, we work closely with our strategically most important suppliers to improve their sustainability performance. We have also incorporated this approach into our sustainability goals.

Evaluation Methods and Processes of the Together for Sustainability (TfS) Initiative

Covestro is a member of Together for Sustainability AISBL, Brussels (Belgium), a joint initiative undertaken by the chemical industry that now includes 34 companies. This nonprofit organization pursues the goal of establishing a program of global standards for responsibly sourcing goods and services and standardizing supplier evaluation methods worldwide. Covestro supports all criteria by the TfS initiative concerning the areas of ethics, labor & human rights, health and safety, and the environment.

As a member of TfS, Covestro is responsible for monitoring and auditing the sustainability performance of its suppliers. TfS supports this effort by providing the infrastructure for online assessments and on-site audits of suppliers by third parties. The results of these supplier evaluations can be shared via an online platform. During the reporting year, Covestro once again played an active role in all TfS work streams in designing and improving the TfS program and the associated evaluation process.

In order to avoid duplication of audits, increase acceptance by suppliers and save resources, TfS and the European Chemical Industry Council (Cefic) have entered into a partnership aiming to work jointly on audits of logistics service providers in particular. Cefic uses the SQAS (Safety & Quality Assessment for Sustainability) system for this purpose, a standardized assessment process for European logistics service providers and chemicals distributors that covers quality, safety, environmental, Responsible Care, and corporate social responsibility criteria. The SQAS reports prepared by Cefic are recognized by TfS as equivalent to a TfS audit report.

Using a standardized TfS assessment process, Covestro evaluates whether the suppliers maintain the required sustainability standards. A structured prioritization process is then carried out to select the suppliers to be evaluated and either an online assessment or an on-site audit initiated for these suppliers – provided that there are no current results. In prioritizing the suppliers for these evaluations, Covestro considers a combination of country and commodity risks. The risk assessment for country and material groups that we use for our risk analysis is based on recognized external sources.

* Because integration of the systems of the acquired Resins & Functional Materials (RFM) business is ongoing, RFM's procurement volume was included only in part in determining the target-relevant suppliers for fiscal 2021. Only the year 2021 was considered for RFM's procurement volume.

EcoVadis SAS (EcoVadis), Paris (France), an established external provider accredited by TfS, conducts the online assessments. It evaluates the degree to which suppliers' business practices are aligned with sustainability principles. The questionnaire suppliers complete for the online assessment is based on internationally recognized sustainability standards and includes 21 sustainability criteria grouped into the categories of environmental protection, labor and human rights, ethics, and sustainable procurement. The section on sustainable procurement also inquires about the extent to which the sustainability standards of upstream suppliers are considered. Certain suppliers that do not engage in wholesale trade and do not employ more than 25 people receive an abbreviated questionnaire that does not address the topic of sustainable procurement.

The questionnaire is dynamically adapted by EcoVadis depending on factors such as the industrial sector, company size, and country risk. Suppliers must document their responses to the questionnaire with corresponding supporting documents. The EcoVadis analysts assess supplier responses and supporting documents under consideration of international standards, such as the UN Global Compact, and consolidate the data into a scorecard available online that shows results by category. This scorecard information includes a detailed overview of identified strengths and areas for improvement as well as a weighted overall result for the suppliers analyzed.

External, independent auditors trained and accredited by TfS or Cefic conduct on-site audits of selected companies – and follow-up audits, if necessary, based on defined sustainability criteria. For the purpose of monitoring the quality of the audits, the initiating TfS member takes part in audits selected on a random basis and evaluates them using a standardized checklist.

Covestro analyzes and documents the online assessments and on-site audits. The number of supplier evaluations conducted and the overall results are reviewed regularly and reported to the Chief Technology Officer. In the event of noncompliance with our sustainability requirements, we work with suppliers to define specific improvement measures and corresponding targets, and Covestro constantly verifies the implementation of the required improvements.

Due to the continuing coronavirus pandemic and its effects on our suppliers, the number of supplier evaluations conducted was down slightly from the previous year, totaling 807 in the reporting year (previous year: 846).

Key data from the sustainability evaluations of Covestro's suppliers¹

	2020	2021
Supplier evaluations conducted in the reporting year	846	807
of which through online assessments	812	788
of which through on-site audits	34	19
Total supplier evaluations conducted	1,706	1,690
of which through online assessments	1,540	1,585
of which through on-site audits	166	105

¹ Online assessments (conducted by external, independent, TfS-accredited provider EcoVadis) and on-site audits (conducted by external, independent, TfS- or Cefic-accredited auditors) of Covestro's suppliers, both initiated by Covestro and shared within the TfS initiative, are taken into account. Only assessments of our active suppliers that are no more than three years old are included.

Supplier Evaluation Results*

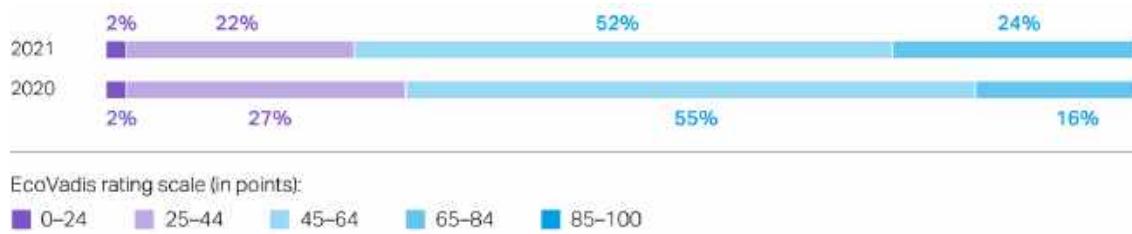
At the end of fiscal 2021, the number of supplier evaluations whose results met our sustainability requirements amounted to 1,211 (previous year: 1,204). Of these supplier assessments, 861 involved our target-relevant suppliers, who account for 80% (previous year: 79) of our target-relevant purchasing value. Furthermore, 61 of our target-relevant suppliers who underwent a repeat assessment in fiscal 2021 have improved compared with their previous results.



In the year 2021, assessment results considered critical by Covestro were identified for seven target-relevant suppliers (previous year: nine); that is, these suppliers failed to meet the required minimum result by a significant margin. Covestro responds to such infractions with specific action plans and demands that the suppliers in question implement appropriate corrective measures; supplier assessments will be conducted in future to verify compliance.

The share of online assessments in which suppliers met the minimum result we defined – 45 out of 100 possible points – was 77% for the online assessments conducted in the year under review (previous year: 71%). Thanks to our joint efforts toward continually improving our sustainability performance, the results of the online assessments improved year over year.

Overall results of the online assessments completed in the reporting year



The share of on-site audits in which suppliers met the minimum result we defined – 45 out of 100 possible points – was 100% for the on-site audits conducted in the year under review (previous year: 100%).

None of the supplier assessments conducted revealed any indication of child or forced labor. In addition, Covestro had no cause to terminate a supplier relationship in the reporting year or in the previous year solely on account of an externally determined result or a serious sustainability deficit, e.g., human rights violations like child labor or forced labor.

* The results provided by the external providers EcoVadis SAS and Together for Sustainability AISBL as well as the European Chemical Industry Council, AISBL (Cefic) were not subject to the audit by KPMG AG Wirtschaftsprüfungsgesellschaft.

[Supplementary information >](#)**Worldwide Supplier Evaluations through the TfS Initiative***

Since the start of the TfS industry initiative in the year 2011, the now 34 members of TfS have evaluated the sustainability performance of a total of 16,083 suppliers through online assessments and have performed 2,518 on-site supplier audits.

All of the results from the online assessments and on-site audits are available to members of the initiative on an online platform, thereby enabling continual monitoring of suppliers with a view to improvements. The TfS initiative also benefits suppliers because their standardized evaluations can be viewed by all TfS members. This means they do not have to complete multiple evaluation surveys by various (potential) customers.

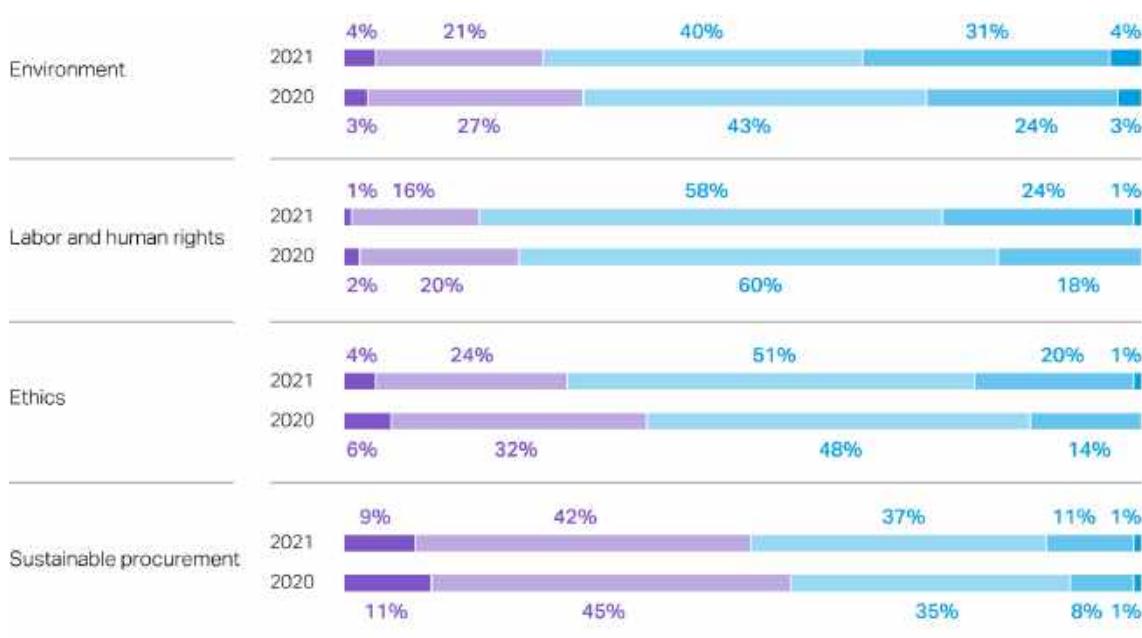
In fiscal 2021, TfS members conducted a total of 5,817 online assessments and 284 on-site audits across the globe.

The TfS initiative celebrated its 10th anniversary in September 2021. In addition to a review of the milestones and success stories of previous years, the future of TfS and trends and issues relating to sustainable supply chains and companies in the next 10 years were also discussed.

 Additional information is available at: www.tfs-initiative.com

Detailed Results of the Supplier Evaluations*

We regularly analyze the results of the online assessments in the areas of environment, labor and human rights, ethics, and sustainable procurement. The results of the assessments carried out in the previous year and the reporting year are summarized in the following chart:

Detailed results of the online assessments completed in the reporting year

EcoVadis rating scale (in points):

 0-24  25-44  45-64  65-84  85-100

The detailed results in all areas indicate a positive trend (increased share of online assessments reaching a score of 45 or higher).

* The results provided by the external providers EcoVadis SAS and Together for Sustainability AISBL as well as the European Chemical Industry Council, AISBL (Cefic) were not subject to the audit by KPMG AG Wirtschaftsprüfungsgesellschaft.

In analyzing the supplier evaluations for the year 2021, we identified deviations from our sustainability requirements in all listed areas. This was due to factors including missing documentation of policies and measures relating to waste management, water management, and energy, as well as a lack of occupational safety measures such as a failure to install signage at emergency exits or exceeding the weekly working hours according to the TfS standard.

Procurement of Key Products

In fiscal 2021, the procurement spending of Covestro's main sites in Germany, the United States, and China accounted for 76% of Covestro's global spending. Most of this amount – 82% – went to local suppliers in the individual countries.

Conflict Minerals

The Dodd-Frank Act in the United States obligates companies to disclose the origin of certain raw materials to prevent that so-called "conflict minerals" such as tin, tungsten, tantalum, and gold (3TG) from the Democratic Republic of Congo or neighboring states enter their products through the supply chain. European Union Regulation (EU) 2017/821, which entered into force on January 1, 2021, stipulates an expanded duty for companies to perform human rights due diligence for the 3TG that includes all global conflict and high-risk regions.

Using a structured survey process, we verify that our suppliers and their upstream suppliers are only obtaining materials which do not originate from conflict regions. Confirmations are documented centrally in the respective material/supplier combinations in our database.

Our requirements regarding conflict minerals are clearly communicated in our Supplier Code of Conduct. Covestro has obtained confirmations of compliance as regards conflict minerals from 100% of the suppliers from whom it actively purchases and who were identified as potentially affected by this issue. We update a list of potentially affected suppliers on an ongoing basis, and monitor the validity of all existing supplier confirmations. To date, there have been no critical results and no need for action regarding this issue.

[< Supplementary information](#)

Sustainability Training and Dialogue

For Covestro, it is important for our own procurement staff, in particular, to have a comprehensive understanding of the significance of sustainability in the supply chain. Awareness of this issue was raised among employees again in fiscal 2021 in company-wide sustainability training plus region- and country-specific training on evaluation methods and processes.

During the reporting year, we continued to promote the implementation of four strategic principles in procurement (reliability, sustainability, cost transformation, and innovation). Moreover, our regional program management in the EMLA, NA, and APAC regions is working on permanently improving our sustainability program.

 See "Procurement."

Dialogue and close collaboration are essential in enabling suppliers to successfully comply with Covestro's sustainability requirements. We therefore offer our suppliers a range of opportunities for training and dialogue. This provides the foundation for building reliable relationships and enables us to identify and eliminate issues at an early stage. Continually improving our suppliers' sustainability performance is a priority for Covestro and is supported by the TfS initiative, which regularly organizes supplier days and promotes further training, among other activities. TfS provides a wide range of information materials and various online training courses on its website. In fiscal 2021, nine online courses were offered in various languages.

 Additional information is available at: www.tfs-initiative.com

Social Responsibility

Human Rights

Human rights are the foundation of Covestro's social responsibility efforts. We are committed to respecting and safeguarding human rights on the basis of the United Nations (UN) Guiding Principles on Business and Human Rights. In various working groups in industry associations, Covestro advocates for compliance with various national action plans and laws on corporate human rights due diligence. As a company, we clearly take responsibility for respecting human rights in all of the Covestro Group's activities and throughout global supply chains and value chains, as well as for guarding against violations of human rights.

Our cross-departmental Human Rights Task Force, which was established in the year 2020, is responsible for fully integrating human rights requirements into our company's activities. The overarching management approach is based on the UN's Guiding Principles on Business and Human Rights, the core elements of the German Act on Corporate Due Diligence Obligations for the Prevention of Human Rights Violations in Supply Chains, which will enter into force in 2023, and the French law on human rights due diligence. We regularly monitor other national and international laws and legislative initiatives such as the planned European Union (EU) law on corporate due diligence in supply chains.

The Task Force works under the leadership of the corporate Sustainability & Public Affairs function and has permanent members from the following corporate functions: Group Health, Safety and Environment, Group Procurement, Human Resources, Law, and Intellectual Property & Compliance. A broader group of professionals from Quality Management, individual business entities, along with risk management experts also participate. The human rights-related responsibilities of the Task Force include developing and implementing the comprehensive management approach, systematically assessing risks, prioritizing and monitoring the implementation of individual measures, planning and conducting trainings, reporting to the Board of Management, and communicating about this issue in general. The individual corporate functions are responsible for, among other things, identifying and assessing risks and developing measures. These measures are designed and implemented in the segments and corporate functions in consultation with the Task Force. In the reporting year, Covestro anchored the responsibilities for individual human rights focal areas in the company. A handbook was developed in the reporting year to support the corporate functions in applying a risk-based approach for managing high-priority human rights issues. It describes in detail the responsibilities of the employees assigned to human rights issues and serves as general guidance for analyzing risks and determining appropriate measures.

Comprehensive Human Rights Due Diligence Process

Covestro has established a comprehensive due diligence process to safeguard human rights in our business activities. This overarching management approach is a continual process comprising the six core elements described below. We have defined responsibilities, frequency, processes and tasks, and the required communication as well as the monitoring approach for each of these core elements.

Human rights due diligence process



Policy and Commitment

The principles of our human rights due diligence are delineated in various Corporate Commitments, corporate regulations, and in our Supplier Code of Conduct. In these documents, we have specified key international conventions and principles as the basis of our conduct. A key component of our commitment is zero tolerance toward child labor, forced labor, and human trafficking. In the reporting year, we once again made a public statement on slavery and human trafficking ("Corporate Commitment against Slavery and Human Trafficking") to underline our position. Our corporate commitment to safeguarding human rights is an integral part of Covestro's operating policies and procedures. It states our clear expectation that our employees and business partners around the world conduct themselves in accordance with these principles.

 Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

Risk Analysis

The starting point for human rights due diligence is a risk analysis that identifies and assesses actual or potential negative impacts on human rights that Covestro could cause either directly or indirectly as a result of its business activities, value chain, or products. Potentially affected persons could include Covestro's own employees, contractors, suppliers, customers, consumers, or even neighboring communities. Covestro conducts a comprehensive risk analysis every three to four years. The last one was in fiscal 2019. Between those analyses, relevant information obtained from internal and external sources is taken into account by the Task Force. The comprehensive and ongoing risk analysis covers all of Covestro's production and distribution sites, the supply chain, as well as the use phase and end-of-life of our products.

The comprehensive risk analysis first identifies all potential human rights risks. The potential risks are then discussed with selected business entities and corporate functions and are prioritized for further management, depending on the severity of the potential human rights violation. Potential human rights violations assigned the highest degree of severity always take top priority for us. The human rights focal areas we have identified primarily relate to working conditions and health effects on workers and contractors at Covestro's sites and in the supply chain. Other identified focal areas include the potential impact of collecting and processing waste from our products, export controls, and the possible effects of our operations on the communities surrounding our sites.

Measures

In accordance with the risk-based approach recommended in the UN's guidelines, we assess the suitability of our existing measures in the identified high-priority categories for preventing or mitigating negative impacts on human rights. Many measures in the areas of health and safety, product stewardship, compliance, human resources, and sustainable supplier management have long been integrated at Covestro and aim to prevent or mitigate negative human rights impacts.

 See "Employees," "Health and Safety," "Product Stewardship," "Compliance," and "Sustainability in the Supply Chain."

In the year under review, additional measures were implemented in the corporate Human Resources function to demonstrate that we prevent child and forced labor in our facilities. In the area of export control, identified measures were realized and the relevant employees trained.

Effectiveness Monitoring

Appropriate qualitative and quantitative indicators along with internal and external sources are used to assess Covestro's human rights measures to review their effectiveness in preventing negative impacts on human rights. In the year 2021, the selected corporate functions and segments reported on a monthly basis to the Human Rights Task Force on the implemented measures and their effectiveness.

Grievance Mechanism

Covestro expressly encourages reporting of possible human rights violations in the Group as well as at suppliers' companies. We use a whistleblower tool for reporting violations in the supply chain since October 2021, which consists of a worldwide hotline and an online tool. Covestro therefore enables employees and third parties to anonymously inform us of potential incidents at our suppliers. We follow a defined process to investigate potential human rights violations and include any findings in future risk analyses.

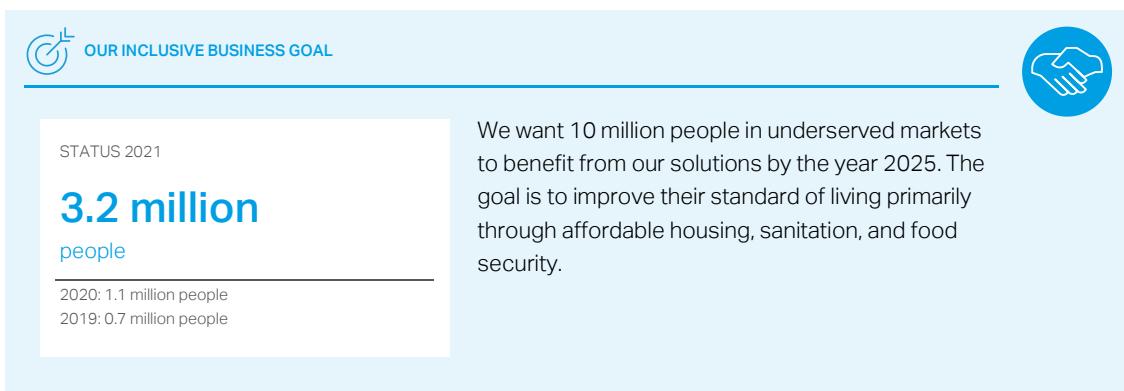
 See "Compliance."

Reporting

Every year, Covestro communicates its human rights activities to the public in its annual report. Moreover, the Task Force reports regularly (no less than once a year) to the Board of Management on the status of human rights due diligence and the systematic integration of these requirements into Covestro's management systems.

Inclusive Business

Our Inclusive Business activities are an important aspect of our sustainability strategy. This business model focuses specifically on unmet needs of communities in underserved markets. Our collaborative approach offers scalable solutions to reach as many people as possible in these markets. We collaborate with our customers as well as governmental and nongovernmental organizations to develop affordable solutions based on our technologies and products to benefit underserved communities and regions by improving living conditions. Our employees concentrate on three regions – the Indian subcontinent, Southeast Asia, and Eastern and Southern Africa – with the main goal of implementing innovative solutions in the fields of affordable housing, food security, and water and sanitary facilities. In terms of food security, one of the areas we are actively engaged in is to fight against post-harvest losses, which are all losses that occur after the harvest (e.g., as a result of improper storage). They are an economic challenge particularly for smallholder farmers. Solar greenhouse dryers and cold storage, which are developed with industry partners within inclusive business, contribute substantially toward improving the financial situation of these farmers by reducing post-harvest losses. In addition, these innovative solutions help develop new sales markets – for instance, in Ethiopia or Tanzania – for Covestro.



We want our solutions to improve the lives of 10 million people in underserved markets by the year 2025. By the end of the year under review, we reached 3.2 million people with inclusive business solutions (previous year: 1.1 million people). Covestro defines this figure by including people who potentially benefit from our activities as part of their work or daily life. These individuals include farmers and their families, school children, and other people who are positively impacted by completion of our projects or installation of our solutions.

Participating governmental and nongovernmental organizations helped us collect the data. The data collected as part of a defined process is reviewed at local and global level, and the processes are continuously refined. In fiscal 2021, the methodology for calculating the number of people reached was optimized. Instead of calculating the number of persons reached once immediately after implementing our inclusive business solutions, we now determine the cumulative number of all people reached over the years since the solution was installed. The Board of Management is informed annually about these global activities.

In the year 2021, we once again concentrated on collaboratively developing new, affordable solutions with partners who passed a due diligence review in advance. These solutions are financed by governmental and non-governmental organizations. Our work in consortia – always preceded by our standard due diligence process for new partners – also ensures that the relevant segments of the population profit from the jointly developed end products.

Our inclusive business activities were severely affected by the global coronavirus pandemic in the year 2021, as they were in the previous year, due to measures such as worldwide travel restrictions. Our activities in Africa and Southeast Asia felt the impact in particular. With the exception of a pilot project in Kenya, the announced water supply project was unable to begin operations. Due to the pandemic, the announced installation of solar greenhouse dryers already delivered in South Africa was successfully executed after an 18-months delay. None of our projects on the Indian subcontinent were canceled, but in most cases implementation was delayed. In Batticaloa (Sri Lanka), the project co-financed by KfW DEG (Deutsche Investitions- und Entwicklungsgesellschaft mbH) for purchasing sanitary facilities was once again delayed because of the pandemic.

Africa

In Africa, the main focus in the year 2021 was on food security. In the reporting year, we were able to continue our partnership with Tshwane University of Technology in Pretoria (South Africa). The students at the university are working on various research projects that use solar greenhouse dryers with a focus on alternative methods for drying traditional African fruits. We worked on another project in Tanzania in the year under review. Our collaboration with Community Forest International and the installation of the solar dryer system financed by the EU helped up to 2,000 local spice growers and their families in Mtambwe Dayaauf (Tanzania). Initial projects were launched in Ethiopia as well. As part of the develoPPP program of the Federal Ministry for Economic Cooperation and Development (BMZ), Covestro signed a contract with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Bonn (Germany). The three-year project is scheduled to roll out in fiscal 2022. After initial drying systems are successfully deployed in various regions of Ethiopia, this program will support craft-based businesses with technology transfer so that they can manufacture dryers themselves. The use of imported equipment is not just for demonstration purposes: It is intended to help coffee growers demonstrably improve their harvest by increasing the quality of the coffee beans. Training of the local population in production and use of the systems is part of the project.

Indian Subcontinent

In the reporting year, our inclusive business activities on the Indian subcontinent primarily targeted drinking water and sanitary facilities as well as food security and affordable housing. We continued to participate in the Fecal Sludge Management & Toilet Program, for instance. Using solar dryers in Khammam (Telangana, India) and Unnao (Uttar Pradesh, India), we successfully demonstrated the advantages of polycarbonate-based drying equipment for drying fecal sludge. Our planned direct participation in public tenders in fiscal 2022, particularly in the area of drying fecal sludge, will enable us to seamlessly connect the organic waste management and food security value chains with the aim of protecting public health in the region.

In the year under review, the regional Inclusive Business team reacted to the global coronavirus pandemic and its impact on the Indian subcontinent by focusing in particular on setting up health centers and school buildings in India as well as marketing innovative solar water supply units in Bangladesh. We worked with Engineering Projects India to submit an application to build a health center to the government of the Indian state of Karnataka.

From the beginning of our activities there, the use of our solutions on the Indian subcontinent was recognized and recommended by various organizations such as the United Nations Department of Economic and Social Affairs (UN DESA), the Solar Impulse Foundation, KfW DEG, and NABARD (National Bank for Agriculture and Rural Development) Consultancy Services. These developments have led the regional team to concentrate on projects such as the water supply in Khulna and Bagerhat (Bangladesh) and various categories of solutions, including food security, in India.

Southeast Asia

Our inclusive business activities also continued in Southeast Asia in the reporting year. Specifically, our initiative in Vietnam launched in the year 2020 under the GREAT program by the Australian Department of Foreign Affairs and Trade remained active. By the end of the year 2021, this had benefited more than 2,000 women, most of whom belong to ethnic minorities.

Joint work on the Coffee Innovation Fund project by GIZ on the solar drying of coffee beans in fiscal 2020 helped Covestro's Southeast Asia team obtain financing for additional projects for our project partners from the Agri Innovation Fund in Laos and Cambodia in the reporting year. With the help of solar greenhouse dryers, the coffee farmers there were able to reduce coffee bean loss and cut drying times while increasing drying efficiency.

Social Engagement

Covestro also aims to contribute to sustainable development through social engagement. As one of the world's largest polymer companies, Covestro uses its position to work with different organizations in numerous regions around the world to advance projects for protecting the environment and improving and supporting the welfare of society. Donations, sponsorship programs, and partnerships are active expressions of Covestro's commitment to local registered charities in the vicinity of Covestro's sites and to various organizations in countries in which the company does business. Covestro maintains long-standing and strategic partnerships with various universities, for example. This includes cooperating with renowned partners throughout the world, such as RWTH Aachen University (Germany), Tongji University in Shanghai (China), and Carnegie Mellon University in Pittsburgh (Pennsylvania, United States).

 See "Strategic Partnerships and Collaborations."

As an innovative company, we focus on innovation, local social management, promoting education, and sharing information about technology. Our focal areas are determined with the help of the Board of Management. What is more, we consider it our duty and corporate responsibility to quickly provide help during natural disasters without unnecessary bureaucracy.

There is a Group-wide directive in place that stipulates approval criteria for donations by Covestro along with the underlying responsibilities and decision-making processes. A transparent approval process with the participation of compliance experts, among others, ensures that the funds are received by those who need them and are disbursed to recognized organizations in accordance with our guidelines. We define recognized organizations as organizations with an extremely low risk of corruption that are known by the general public. Donations must be handled responsibly, and this is ensured by making it a requirement that approval is obtained for annual donation

plans in advance from local compliance officers and local executives, department heads, or plant managers. The managers of the corporate Sustainability & Public Affairs function must also be included in all donation activities. Sustainability & Public Affairs additionally provides support for planning and participation in partnerships and donation processing.

In the reporting year, Covestro provided assistance during natural disasters in Germany and China, among other things, donating materials and amounts in the mid-six-digit euros and giving employees days off to help with relief efforts so that local support could be provided quickly. We also partnered with virtual donation site betterplace.org, which coordinates and supports donation drives across Germany. Covestro employees all over the globe were given the opportunity to donate to selected organizations using the intranet, with the company matching each donation up to a total of €175,000. As a result of the coronavirus pandemic, Covestro donated IT equipment for virtual learning to educational institutions worldwide, in addition to masks and disinfectants.

Alliance to End Plastic Waste

Another strategic focal area of our social engagement efforts is aligned with our corporate vision. We recognize the public's interest in how plastic waste is dealt with. Covestro not only actively contributes to ensuring the full circularity of its own products, but also channels plastic products at the end of their life cycle to controlled material streams so they do not pollute the environment. We do so particularly as an active founding member of the Alliance to End Plastic Waste. This global network of companies strives to minimize, manage, and reuse plastic waste – and above all, prevent plastic waste from entering the environment. By the end of the year 2023, USD 1.5 billion (around €1.3 billion) is expected to have been provided for this purpose by the network. More than 65 companies from the chemical, plastic, consumer goods, and waste management sectors currently participate in this initiative.

For Covestro, the Alliance is a key component of the strategic Circular Economy program to close product loops worldwide. The Alliance identifies, invests in, and manages economically viable and sustainable waste collection and recycling solutions in cities with the support of strategic partners. Furthermore, the Alliance unlocks market opportunities for recycled materials and promotes the development of improved recycling processes and potential closed-loop products. These measures aim to transform unused and improperly disposed of plastic waste into sources of raw materials. The Alliance also advocates for sustainable consumer habits.

Covestro contributes to the Alliance not only financially, but also through the expertise of Covestro professionals and executives, including our Board of Management. Moreover, Covestro additionally contributes by currently pursuing a total of 13 partnerships and our own projects that concentrate primarily on researching and developing new recycling methods, and identifying and setting up waste-based raw material streams. The Alliance issues an annual progress report, which also includes summaries and assessments of its members' contributions. By the end of the year 2021, Covestro's total contribution amounted to €12.3 million (€7.2 million).

REPORT ON ECONOMIC POSITION

Economic Environment

Global Economy

As a whole, 2021 saw a new record high in worldwide economic output, although the impact of the coronavirus pandemic was still evident in some segments of the global economy. In contrast with a weaker year in 2020, the global economy expanded at a rate of 5.6% in the year 2021, with all regions recording strongly positive growth rates.

Economic environment

	Growth ¹ 2020	Growth ¹ 2021
	%	%
World	-3.5	+5.6
Europe, Middle East, Latin America², Africa (EMLA)	-5.6	+5.2
of which Europe	-6.0	+5.3
of which Germany	-4.9	+2.7
of which Middle East	-3.5	+4.7
of which Latin America ²	-7.4	+6.2
of which Africa	-2.4	+3.4
North America³ (NA)	-3.8	+5.6
of which United States	-3.4	+5.7
Asia-Pacific (APAC)	-1.1	+6.0
of which China	+2.3	+8.1

¹ Real growth of gross domestic product; source: IHS (Global Insight), as of January 2022.

² Latin America (excluding Mexico).

³ North America (Canada, Mexico, United States).

Main Customer Industries

At 2.2%, the global automotive industry returned to positive growth in the year under review after experiencing a strong decline in the year 2020. However, this improvement in the automotive industry trailed other main customer industries due to disruptions in global supply chains. Modest positive growth in the automotive industry in the APAC region stood in contrast to stable performance in the NA region and a slightly negative trend in the EMLA region.

In the year 2021, the global construction industry saw a positive growth rate of 2.5%, recovering from the slight drop in the previous year. The construction industry expanded slightly in all regions. The key drivers of this growth were the EMLA and APAC regions, whereas growth in the NA region was modestly lower.

The 13.9% growth rate in the global electrical, electronics, and household appliances industry in fiscal year 2021 was well above the previous year's level. The increase was mainly driven by the APAC and EMLA regions, whereas growth in the NA region was lower.

The global furniture industry experienced an 8.6% upturn with strongly positive growth rates in all regions in fiscal 2021. The APAC and EMLA regions were the engines behind the growth in the global furniture industry, whereas the pace of growth in the NA region was slower.

Main customer industries¹

	Growth 2020	Growth 2021
	%	%
Automotive	-15.9	+2.2
Construction	-1.8	+2.5
Electrical, electronics and household appliances	+4.5	+13.9
Furniture	-4.8	+8.6

¹ Covestro's estimate, based on the following sources: LMC Automotive Limited, B+L, CSIL (Centre for Industrial Studies), Oxford Economics. We limited the economic data of our "automotive and transportation" and "furniture and wood processing" main customer industries to the automotive and furniture segments (not the transportation or wood processing segments). As of: January 2022.

Business Performance at a Glance

Significant Events

Coronavirus Pandemic

The coronavirus pandemic continued to leave its mark on the global economy, although the impact is considerably less severe than in the previous year. High vaccination rates and updated measures to combat the pandemic took effect. Compared with the prior year, Covestro also observed a further upturn in demand, although this could not be met fully due to bottlenecks in global supply chains. The health, safety, and hygiene measures implemented by the company at an early stage in the previous year remain in place. Covestro supports employee access to vaccinations against the coronavirus, including through cooperation with company health facilities. Depending on the local situation in each case, some staff, particularly employees in administrative departments, continue to work from home. Production at our sites was not affected by the pandemic in fiscal 2021.

Covestro is monitoring the development of the coronavirus pandemic worldwide on an ongoing basis. Existing measures are modified as required in line with recommendations and instructions issued by the relevant governments and committees of experts. At the end of 2021, we again redoubled our health, safety, and hygiene efforts in reaction to the new Omicron variant of the virus.

Other Events

On April 1, 2021, Covestro completed the acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands). A total of 27 RFM companies were fully consolidated for the first time on that date. Completing the RFM acquisition makes Covestro one of the world's leading suppliers of sustainable coating resins.

 See note 5.1 "Scope of Consolidation and Investments" in the Notes to the Consolidated Financial Statements.

In the year 2021, Covestro unveiled the Group's new Sustainable Future strategy, which has customer centricity and sustainable growth at its core. The guiding principle of the strategy and the Group's long-term objective is to become fully circular. In the interest of this objective, Covestro realigned its organizational and reporting structure effective July 1, 2021. The Group's three reportable segments to date (Polyurethanes, Polycarbonates and Coatings, Adhesives, Specialties) have been replaced with two new reportable segments: Performance Materials and Solutions & Specialties. The Performance Materials segment concentrates on reliably delivering standard products at competitive costs. The focus of the Solutions & Specialties segment is on differentiated products with a high pace of innovation, which Covestro combines with application technology services. Other business activities that cannot be allocated to any of the aforementioned segments are reported under "Other/Consolidation." Intersegment transactions are conducted at arm's length and reported separately as intersegment sales. The Quarterly Statement as of September 30, 2021 marked the first time our reporting reflected the new segment structure; reference information for fiscal 2020 was restated.

 See "Group Strategy" and note 4 "Segment and Regional Reporting" in the Notes to the Consolidated Financial Statements.

On July 7, 2021, the euro bond placed in fiscal 2016 with a total volume of €500 million and maturing in October 2021 was fully repaid at par value ahead of schedule. Moreover, due to the positive liquidity situation, Covestro contributed €500 million to pension plan assets (Metzler Trust e.V., Frankfurt am Main (Germany)) in November 2021 to further fund pension commitments to employees in Germany, while at the same time reducing the volatility of the total assets.

 See "Financial Position" for additional details and other key funding measures.

On July 26, 2021, Covestro successfully wrapped up the sale of the systems house business in the Middle East by selling its interests in the Pearl Polyurethane Systems FZCO and Pearl Polyurethane Systems LLC legal entities to co-shareholder Pearl Industries Overseas Ltd., Dubai (United Arab Emirates). The sale is part of an ongoing effort to optimize the portfolio and represents another step toward refocusing the Polyurethanes segment.

 See note 5.2 "Acquisitions and Divestitures" in the Notes to the Consolidated Financial Statements.

In October 2021, the Supervisory Board of Covestro AG issued an early extension of the contract with Board of Management member Sucheta Govil, which was to expire on July 31, 2022. The new term runs until July 31, 2025. She has been a Covestro's Chief Commercial Officer (CCO) since August 2019.

Overall Assessment of Business Performance and Target Attainment

Business Performance

The Covestro Group looks back on a successful fiscal year. In contrast to the previous year, which was overshadowed by the coronavirus pandemic, core volume growth was 10.0% in the year under review, up significantly (previous year: -5.6%). This development is attributable to factors including the acquisition and integration of the RFM business into Covestro. EBITDA increased to €3,085 million (previous year: €1,472 million), mainly due to considerably higher margins. Cash outflows for additions to property, plant, equipment, and intangible assets increased to €764 million (previous year: €704 million). Higher EBITDA increased free operating cash flow to €1,429 million (previous year: €530 million).

Target Attainment

In the Annual Report 2020, the Covestro Group published a forecast for key management indicators in fiscal 2021. Covestro adjusted the forecast presented in the Annual Report 2020 on April 13, 2021, as a result of business development that had been better than previously expected. An increasingly positive outlook led to the forecast being raised again on July 12, 2021. In view of our business performance in the second half of 2021, we again adjusted our guidance on November 8, 2021.

The Covestro Group most recently anticipated core volume growth between 10% and 12% after originally projecting core volume growth between 10% and 15%. Likewise, we also adjusted the forecasts for free operating cash flow (FOCF) and return on capital employed (ROCE). After initially projecting FOCF of between €900 million and €1,400 million, the Covestro Group changed this range in November 2021 to between €1,400 million and €1,700 million for the full year. The original forecast for ROCE was between 7% and 12%, which was recently lifted to between 19% and 21%.

Covestro met and in some cases exceeded the original forecast issued in the Annual Report 2020. Core volume growth for the 2021 fiscal year was 10.0%, within the range of our original projection. FOCF totaling €1,429 million and ROCE amounting to 19.5% exceed the originally communicated range. In view of the most recently adjusted forecast from November 2021, the performance of all key management indicators was as anticipated.

Target attainment for fiscal year 2021

	2020	Forecast 2021 ¹	Adjusted forecast 2021 ²	Target attainment 2021
Core volume growth	-5.6%	Between 10% and 15%	Between 10% and 12%	+10.0%
Free operating cash flow (FOCF)	€530 million	Between €900 million and €1,400 million	Between €1,400 million and €1,700 million	€1,429 million
Return on capital employed (ROCE)	+7.0%	Between 7% and 12%	Between 19% and 21%	+19.5%

¹ Published on February 23, 2021 (Annual Report 2020).

² Published on November 8, 2021 (Quarterly Statement as of September 30, 2021).

Results of Operations, Financial Position, and Net Assets of the Covestro Group

Covestro Group key data

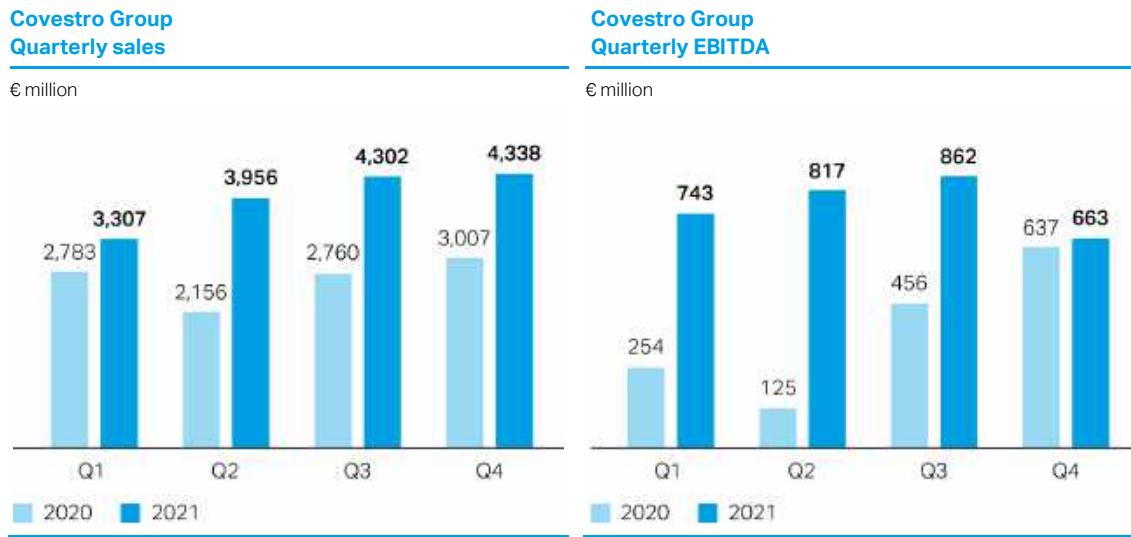
	4th quarter 2020	4th quarter 2021	Change	2020	2021	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth¹	+1.7%	+4.6%		-5.6%	+10.0%	
Sales	3,007	4,338	+44.3	10,706	15,903	+48.5
Change in sales						
Volume	+4.7%	-0.2%		-5.1%	+6.5%	
Price	+5.4%	+31.6%		-5.7%	+34.7%	
Currency	-4.0%	+3.8%		-1.6%	-0.8%	
Portfolio	-1.1%	+9.1%		-1.3%	+8.1%	
Sales by region						
EMLA	1,288	1,822	+41.5	4,600	6,876	+49.5
NA	654	1,049	+60.4	2,554	3,553	+39.1
APAC	1,065	1,467	+37.7	3,552	5,474	+54.1
EBITDA	637	663	+4.1	1,472	3,085	>100
Depreciation and amortization	205	218	+6.3	776	823	+6.1
EBIT	432	445	+3.0	696	2,262	>200
Financial result	(13)	(10)	-23.1	(91)	(77)	-15.4
Net income	312	302	-3.2	459	1,616	>200
Operating cash flows	635	648	+2.0	1,234	2,193	+77.7
Cash outflows for additions to property, plant, equipment and intangible assets	241	292	+21.2	704	764	+8.5
Free operating cash flow	394	356	-9.6	530	1,429	>100
Net financial debt ²				356	1,405	>200
ROCE				+7.0%	+19.5%	

¹ Calculated on the basis of the definition of the core business effective March 31, 2021.

² As of December 31, 2021, compared with December 31, 2020.

Results of Operations

Results of operations in fiscal 2021 improved considerably over the prior year, a development reflected above all in sales and earnings. Over the course of the year as a whole, Covestro saw demand for its products recover in all regions.



Volume Growth and Sales

Core volumes sold by the Group saw year-over-year growth of 10.0% in full-year 2021. The additional volumes from the Resins & Functional Materials business (RFM) acquired from Koninklijke DSM N.V., Heerlen (Netherlands) was a major contributor to this growth, adding 6.1 percentage points. Our growth opportunities were curtailed by reduced product availability, e.g., due to the impact of unplanned, weather-related production stoppages in the NA region in the first quarter of 2021. Core volumes sold in the Performance Materials segment remained largely stable with an increase of 0.3%, whereas Solutions & Specialties saw core volumes sold jump by 26.0%.

In fiscal 2021, Group sales were up by 48.5% year over year to €15,903 million (previous year: €10,706 million), the highest ever in Covestro's history. This was mainly due to a higher selling price level driven by increased demand, which had a positive impact on sales amounting to 34.7%. Moreover, the portfolio change arising from the RFM acquisition in the second quarter of 2021 had a positive effect on sales of 8.1%, while the development of total volumes sold increased sales by 6.5%. Exchange rate changes had a negative effect on sales of 0.8%.

Sales in both segments were up in fiscal 2021. In the Performance Materials segment, sales rose 48.9% to €8,142 million (previous year: €5,468 million), while the Solutions & Specialties segment's sales increased 49.3% to €7,554 million (previous year: €5,060 million).

EBIT**Covestro Group summary income statement**

	2020	2021	Change
	€ million	€ million	%
Sales	10,706	15,903	+48.5
Cost of goods sold	(8,207)	(11,475)	+39.8
Gross profit	2,499	4,428	+77.2
Selling expenses	(1,195)	(1,428)	+19.5
Research and development expenses	(262)	(341)	+30.2
General administration expenses	(310)	(415)	+33.9
Other operating expenses (–) and income (+)	(36)	18	.
EBIT	696	2,262	>200
Financial result	(91)	(77)	-15.4
Income before income taxes	605	2,185	>200
Income taxes	(151)	(566)	>200
Income after income taxes	454	1,619	>200
of which attributable to noncontrolling interest	(5)	3	.
of which attributable to Covestro AG shareholders (net income)	459	1,616	>200

The cost of goods sold was up by 39.8%, amounting to €11,475 million (previous year: €8,207 million), on account of higher raw material prices, while the ratio of the cost of goods sold to sales decreased to 72.2% (previous year: 76.7%).

The gross profit rose 77.2% to €4,428 million (previous year: €2,499 million). The driver of this trend was the higher selling price level, which significantly exceeded the increase in raw material prices. Furthermore, growth in volumes sold gave earnings a boost.

Selling expenses rose by 19.5% to €1,428 million (previous year: €1,195 million). Due to higher sales, however, the ratio of selling expenses to sales was lower at 9.0% (previous year: 11.2%). Research and development (R&D) expenses were up 30.2% to €341 million (previous year: €262 million). As a share of sales, this produced an R&D ratio of 2.1% (previous year: 2.4%). General administration expenses increased by 33.9% to €415 million (previous year: €310 million), for a ratio of administration expenses to sales of 2.6% (previous year: 2.9%).

Higher provisions for short-term variable compensation reduced earnings. Nonrecurring expenses related to the RFM acquisition also had a negative effect on earnings in the mid-double-digit million euro range. In contrast, positive synergy effects from the RFM acquisition were in the low double-digit million euro range thanks in particular to an efficiency boost in sales, administration, and procurement activities.

Other operating income exceeded other operating expenses by €18 million (previous year: €-36 million).

EBIT amounted to €2,262 million, more than tripling in the reporting period (previous year: €696 million). The EBIT margin rose to 14.2% (previous year: 6.5%).

EBITDA

Calculation of EBITDA

	2020	2021
	€ million	€ million
EBIT	696	2,262
Depreciation, amortization, impairment losses and impairment loss reversals	776	823
EBITDA	1,472	3,085

In fiscal 2021, depreciation, amortization, impairment losses and impairment loss reversals rose by 6.1% to €823 million (previous year: €776 million). They comprised €760 million (previous year: €754 million) in depreciation and impairments of property, plant, and equipment and €63 million (previous year: €22 million) in amortization and impairments of intangible assets. This included €5 million (previous year: €20 million) in impairment losses and €3 million (previous year: €0 million) in reversals of impairment losses.

The Group's EBITDA in the year as a whole more than doubled over the prior-year period to €3,085 million (previous year: €1,472 million). The Performance Materials segment made a particularly strong contribution to this growth, increasing EBITDA to €2,572 million (previous year: €896 million). The Solutions & Specialties segment's EBITDA rose by 1.1% to €751 million (previous year: €743 million).

Net Income

In the fiscal year, the financial result stood at €–77 million (previous year: €–91 million) and largely consisted of net interest expense of €41 million (previous year: €47 million). In view of the financial result, income before income taxes rose to €2,185 million (previous year: €605 million). The change in income resulted in the income tax expense increasing to €566 million (previous year: €151 million). After taxes and noncontrolling interests, net income more than tripled over the prior year to €1,616 million (previous year: €459 million).

Return on Capital Employed (ROCE) and Value Contribution

Calculation of the ROCE and the value contribution

	2020	2021
	€ million	€ million
EBIT	696	2,262
Effective tax rate ¹	+25.0%	+25.9%
Taxes ²	174	586
Net operating profit after taxes (NOPAT)	522	1,676
Average capital employed	7,475	8,598
ROCE	+7.0%	+19.5%
Weighted average cost of capital (WACC)	+7.3%	+6.6%
ROCE above WACC	–0.3% points	+12.9% points
Cost of capital³	546	567
Value contribution⁴	(24)	1,109

¹ The calculation of the effective tax rate is presented in note 11 "Taxes" in the Notes to the Consolidated Financial Statements.

² The imputed income taxes used in the calculation of NOPAT are determined by multiplying EBIT by the effective tax rate.

³ WACC multiplied by average capital employed.

⁴ NOPAT less cost of capital.

The Covestro Group's NOPAT totaled €1,676 million (previous year: €522 million), and average capital employed amounted to €8,598 million (previous year: €7,475 million). This triggered an increase in ROCE to 19.5% (previous year: 7.0%). Despite a lower WACC of 6.6% (previous year: 7.3%), the cost of capital rose slightly to €567 million (previous year: €546 million) on account of the increase in average capital employed. Since ROCE was well above the lower WACC, Covestro earned a significant premium over capital costs. The value contribution therefore increased to €1,109 million (previous year: €–24 million).

 Additional information on the calculation of indicators is available in "Key Management Indicators."

Calculation of average capital employed

	Dec. 31, 2019	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million	€ million
Goodwill	264	255	757
Other intangible assets	114	109	706
Property, plant and equipment	5,286	5,175	6,032
Investments accounted for using the equity method	192	173	172
Other noncurrent financial assets ¹	7	5	6
Other receivables ²	376	309	447
Deferred taxes ³	221	253	301
Inventories	1,916	1,663	2,914
Trade accounts receivable	1,561	1,593	2,343
Claims for income tax refunds	104	55	128
Assets held for sale ⁴	12	36	–
Gross capital employed	10,053	9,626	13,806
Other provisions ⁵	(422)	(360)	(843)
Other liabilities ^{6,7}	(284)	(269)	(333)
Deferred tax liabilities ⁸	(204)	(177)	(293)
Trade accounts payable ⁷	(1,431)	(1,241)	(2,214)
Income tax liabilities	(164)	(162)	(337)
Liabilities directly related to assets held for sale ⁹	(8)	(7)	–
Capital employed	7,540	7,410	9,786
Average capital employed			7,475
			8,598

¹ Other noncurrent financial assets were adjusted for nonoperating assets.² Other receivables were adjusted for nonoperating and financial receivables.³ Deferred taxes were adjusted for deferred taxes from defined benefit plans and similar obligations.⁴ Assets held for sale were adjusted for nonoperating and financial assets.⁵ Other provisions were adjusted for provisions for interest payments.⁶ Other liabilities were adjusted for nonoperating and financial liabilities.⁷ Reference information was restated accordingly, see note 4.1 "Change in Presentation of Rebates Granted to Customers" in the Annual Report 2020.⁸ Deferred tax liabilities were adjusted for deferred tax liabilities from defined benefit plans and similar obligations.⁹ Liabilities directly related to assets held for sale were adjusted for nonoperating and financial liabilities.

Financial Position

Statement of Cash Flows

Covestro Group summary statement of cash flows

	4th quarter 2020	4th quarter 2021	2020	2021
	€ million	€ million	€ million	€ million
EBITDA	637	663	1,472	3,085
Income taxes paid	(40)	(237)	(155)	(546)
Change in pension provisions	(1)	1	25	31
(Gains) losses on retirements of noncurrent assets	6	1	8	(3)
Change in working capital/other noncash items	33	220	(116)	(374)
Cash flows from operating activities	635	648	1,234	2,193
Cash outflows for additions to property, plant, equipment and intangible assets	(241)	(292)	(704)	(764)
Free operating cash flow	394	356	530	1,429
Cash flows from investing activities	(764)	(498)	(1,769)	(1,995)
Cash flows from financing activities	377	(2)	1,204	(965)
Change in cash and cash equivalents due to business activities	248	148	669	(767)
Cash and cash equivalents at beginning of period	1,157	496	748	1,404
Change in cash and cash equivalents due to changes in scope of consolidation	–	–	1	–
Change in cash and cash equivalents due to exchange rate movements	(1)	5	(14)	12
Cash and cash equivalents at end of period	1,404	649	1,404	649

Cash Flows from Operating Activities/Free Operating Cash Flow

Cash flows from operating activities grew to €2,193 million (previous year: €1,234 million), chiefly due to the increase in EBITDA. This stood in contrast to higher cash tied up in working capital and an increase in income tax payments. Higher cash flows from operating activities less cash outflows for additions to property, plant, equipment, and intangible assets of €764 million (previous year: €704 million) led to an increase in free operating cash flow to €1,429 million (previous year: €530 million).

 Additional information on the calculation of indicators is available in "Management."

Cash Flows from Investing Activities

In fiscal 2021, net cash used in investing activities totaled €1,995 million (previous year: €1,769 million). The cash outflows mainly comprise net purchase price payments of €1,469 million for the RFM acquisition and additions to property, plant, equipment and intangible assets of €764 million (previous year: €704 million). In contrast, cash inflows stemmed from the net sale of money market fund units and totaled €207 million.

Capital expenditures in fiscal 2021 were targeted at maintenance and improvement of existing plants as well as new capacity in both segments. In the Performance Materials segment, construction of Covestro's own chlorine production facility at the site in Tarragona (Spain) continued. The plant will promote the use of energy-conserving technologies and aims to lower production costs at the site. As in fiscal 2020, water treatment was invested in further at the Rotterdam (Netherlands) site. Additional investments were also made at the Shanghai (China) site to secure and optimize the chlorine supply. Strategic capital expenditure in the Solutions & Specialties segment was aimed at capacity expansion, e.g., for compounding, at the Map Ta Phut (Thailand), Shanghai (China), and Krefeld-Uerdingen (Germany) sites.

Cash outflows for additions to property, plant, equipment and intangible assets

	2020	2021
	€ million	€ million
Performance Materials	498	488
Solutions & Specialties	203	273
Others/Consolidation	3	3
Covestro Group	704	764

Cash Flows from Financing Activities

Net cash outflow from the Covestro Group's financing activities amounted to €965 million in fiscal 2021 (previous year: net cash inflow of €1,204 million). This was largely due to the full, early repayment at par value of the €500 million euro bond on July 7, 2021. The bond had been placed in fiscal 2016 and was set to mature in October 2021. Cash outflows additionally included dividend payments of €262 million. Of this amount, €251 million was attributable to Covestro AG shareholders (previous year: €219 million).

Net Financial Debt

The Covestro Group's financial debt decreased by €379 million from €2,886 million as of December 31, 2020, to €2,507 million as of December 31, 2021. This was mainly due to the repayment of the €500 million euro bond maturing in October 2021. In contrast, lease liabilities grew by €89 million and bank loans by €50 million.

Cash and cash equivalents decreased in comparison with the figure on December 31, 2020, by €755 million to €649 million. This change was mainly driven by the net purchase price payments for the RFM acquisition amounting to €1,469 million. Moreover, cash and cash equivalents declined on account of cash outflows for additions to property, plant, equipment and intangible assets of €764 million, the repayment of the euro bond in the amount of €500 million, and dividend payments of €262 million. Conversely, higher cash flows from operating activities of €2,193 million increased cash and cash equivalents.

The contribution of money market fund units totaling €500 million to pension plan assets (Metzler Trust e.V.) and the net sale of other money market fund units amounting to €207 million led to a €673 million decrease in current financial assets to €453 million.

In fiscal 2021, net financial debt increased by €1,049 million to €1,405 million (previous year: €356 million).

Net financial debt

	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million
Bonds	1,990	1,492
Liabilities to banks	227	275
Lease liabilities	672	761
Liabilities from derivatives	9	11
Other financial liabilities	1	2
Receivables from derivatives	(13)	(34)
Financial debt	2,886	2,507
Cash and cash equivalents	(1,404)	(649)
Current financial assets	(1,126)	(453)
Net financial debt	356	1,405

Financial Management

The main purpose of financial management is to ensure solvency at all times, continuously optimize capital costs, and reduce the risks of financing measures. Financial management for the Covestro Group is performed centrally by Covestro AG.

Covestro AG operates a Debt Issuance Program with a total volume of €5.0 billion to facilitate obtaining flexible financing from the capital market. The company is thus in the position to issue fixed- and variable-rate bonds as well as to undertake private placements. Covestro AG successfully placed several bonds from its Debt Issuance Program. The €500 million euro bond placed in March 2016 carries a fixed coupon of 1.75% and matures in September 2024. The €500 million euro bond also placed in March 2016 carrying a fixed coupon of 1.00% and maturing in October 2021 was repaid in full at par value on July 7, 2021. The additional €1.0 billion in euro bonds placed on June 5, 2020 consist of one €500 million euro bond with a fixed coupon of 0.875% maturing in February 2026, and another €500 million euro bond with a fixed coupon of 1.375% maturing in June 2030. All outstanding bonds have been assigned a Baa2 rating with stable outlook by Moody's Investors Service, London (United Kingdom).

In fiscal 2020, Covestro AG obtained a syndicated revolving credit facility totaling €2.5 billion with a term of five years. It includes two options to extend the term by one year in each case and represents a back-up liquidity reserve. One option to extend was exercised in March 2021 to extend the term of the syndicated revolving credit facility to March 2026. An important new feature of the credit line is its link to an environmental, social, governance (ESG) rating: The better (worse) the externally calculated ESG score is, the lower (higher) the interest component of the credit facility. The syndicated credit facility was unused as of December 31, 2021. On September 30, 2020, Covestro arranged another syndicated credit facility in the original amount of €1.7 billion. This second credit facility was reduced to €1.2 billion on October 26, 2020, and was terminated as of January 29, 2021. It originally served as bridge financing for the net purchase price payments for the RFM acquisition.

On March 31, 2021, Moody's Investors Service, London (United Kingdom), confirmed Covestro AG's Baa2 investment-grade rating to date and lifted the outlook from negative to stable. Covestro intends to continue to maintain financing structures and financial ratios that support a solid investment-grade rating in the future.

The Covestro Group pursues a prudent debt management strategy to ensure flexibility, drawing on a balanced financing portfolio. This is based for the most part on bonds, syndicated credit facilities, and bilateral loan agreements.

As a company with international operations, Covestro is exposed to financial opportunities and risks. These are continuously monitored within the context of Covestro's financial management activities. Instruments including derivatives are used to minimize risks.

For a detailed presentation of financial opportunities and risks as well as further explanations, please see Covestro's opportunities and risks report.

 See "Opportunities and Risks Report" and note 24.2 "Financial Risk Management and Information on Derivatives" in the Notes to the Consolidated Financial Statements.

Net Assets

Covestro Group summary statement of financial position

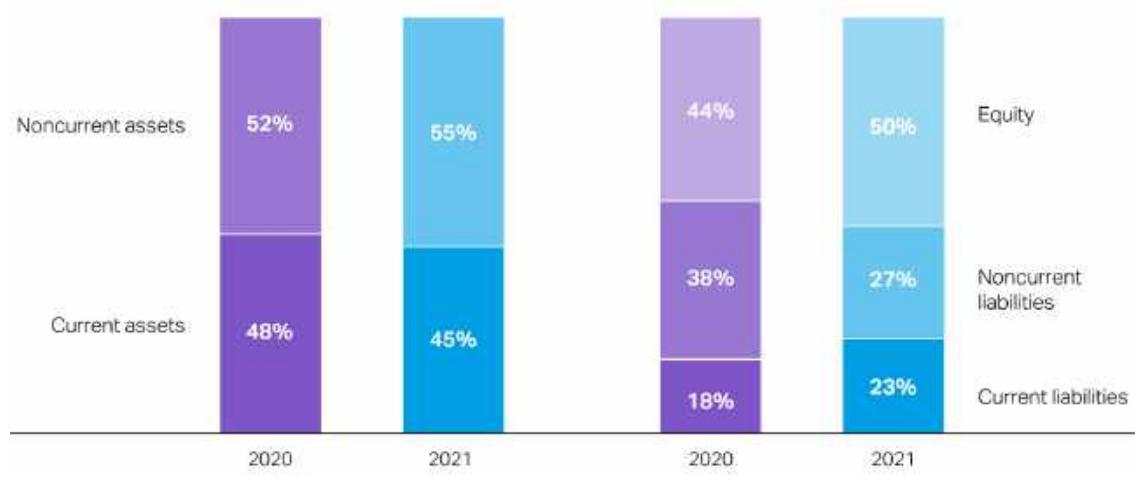
	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million
Noncurrent assets	6,734	8,610
Current assets	6,190	6,961
Total assets	12,924	15,571
Equity	5,644	7,762
Noncurrent liabilities	4,916	4,203
Current liabilities	2,364	3,606
Liabilities	7,280	7,809
Total equity and liabilities	12,924	15,571

Total assets increased by €2,647 million to €15,571 million as of December 31, 2021 (December 31, 2020: €12,924 million).

Noncurrent assets were up by €1,876 million to €8,610 million (previous year: €6,734 million) and accounted for 55% (previous year: 52%) of total assets. This increase is largely attributable to the property, plant, equipment, and intangible assets acquired as part of the RFM business and recognized at fair value along with the resulting goodwill recognized in this process.

Current assets were up €771 million to €6,961 million (previous year: €6,190 million), and their ratio to total assets was 45% (previous year: 48%). This change occurred as a result of the increase in inventories and trade accounts receivable, whereas current financial assets and cash and cash equivalents declined year over year.

Covestro Group's balance sheet structure



Equity increased by €2,118 million to €7,762 million as of December 31, 2021 (previous year: €5,644 million). The equity ratio at the reporting date was 50% (previous year: 44%). The growth in equity is mainly attributable to income after income taxes for fiscal 2021, the remeasurement of pension obligations, and positive foreign exchange differences. The dividend distribution for fiscal 2020 had the opposite effect.

Noncurrent liabilities decreased by €713 million to €4,203 million as of the reporting date (previous year: €4,916 million) and accounted for 27% (previous year: 38%) of total capital and 54% (previous year: 68%) of liabilities. This is primarily due to lower provisions for pensions and other post-employment benefits.

Net defined benefit liability for post-employment benefits

	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million
Provisions for pensions and other post-employment benefits	2,123	1,199
Net defined benefit asset	(2)	(4)
Net defined benefit liability for post-employment benefits	2,121	1,195

The net defined benefit liability for post-employment benefits (pension obligations less plan assets) was down by €926 million in the reporting year to €1,195 million (previous year: €2,121 million). This was due to actuarial gains, especially those attributable to the increase in the discount rate in Germany and the United States as well as the November 2021 contribution of money market fund units totaling €500 million to pension plan assets.

Current liabilities increased by €1,242 million to €3,606 million (previous year: €2,364 million) and accounted for 23% (previous year: 18%) of total equity and liabilities and 46% (previous year: 32%) of liabilities. This increase was attributable chiefly to trade accounts payable and other provisions. The early repayment of the €500 million euro bond placed in fiscal 2016 had the opposite effect.

Performance of the Segments

Performance Materials

Performance Materials key data¹

	4th quarter 2020 ²	4th quarter 2021	Change	2020 ^{2,3}	2021 ³	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth⁴		-0.8%			+0.3%	
Sales (external)	1,594	2,259	+41.7	5,468	8,142	+48.9
Intersegment sales	257	596	>100	947	2,195	>100
Sales (total)	1,851	2,855	+54.2	6,415	10,337	+61.1
Change in sales (external)						
Volume		+0.5%			+1.6%	
Price		+37.6%			+48.1%	
Currency		+3.6%			-0.8%	
Portfolio		0.0%			0.0%	
Sales by region (external)						
EMLA	759	1,039	+36.9	2,572	3,878	+50.8
NA	340	582	+71.2	1,347	1,926	+43.0
APAC	495	638	+28.9	1,549	2,338	+50.9
EBITDA⁵	465	590	+26.9	896	2,572	>100
EBIT ⁵	321	445	+38.6	323	2,003	>500
Cash flows from operating activities	327	665	>100	674	1,875	>100
Cash outflows for additions to property, plant, equipment and intangible assets	169	168	-0.6	498	488	-2.0
Free operating cash flow	158	497	>200	176	1,387	>600

¹ Reference information calculated based on the organizational and reporting structure as of July 1, 2021.

² Reference information based on fiscal 2019 is not presented here due to the new organizational structure.

³ Values calculated retroactively due to a change in market-rate compensation for transactions between the Performance Materials and Solutions & Specialties segments as of October 1, 2021; reference information restated accordingly.

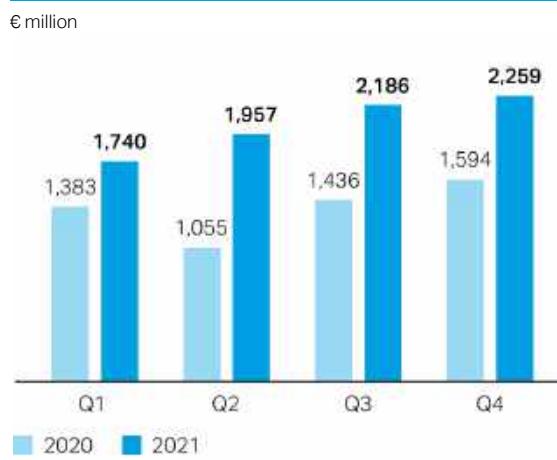
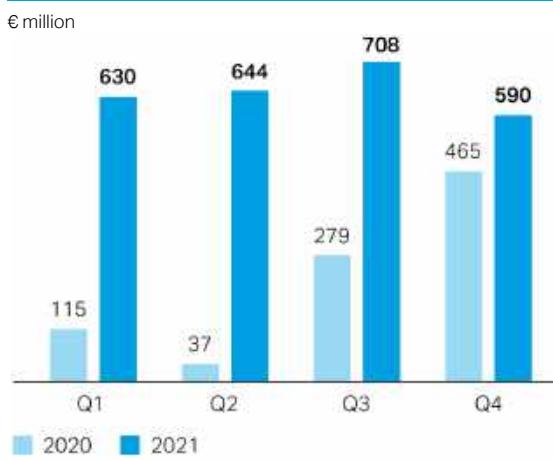
⁴ Calculated on the basis of the definition of the core business effective March 31, 2021.

⁵ EBITDA and EBIT include the effect on earnings of intersegment sales.

The Performance Materials segment generated year-over-year core volume growth of 0.3% in fiscal 2021. Volumes were positively affected mainly by the electrical, electronics and household appliances industry, particularly in the APAC region. In the furniture and wood processing industry, however, core volumes sold were down across all regions. Solid global demand was offset by limited product availability, e.g., due to the impact of unplanned, weather-related production stoppages in the NA region in the first quarter of 2021. This limited the growth potential of the segment.

Sales in the Performance Materials segment were up 48.9% to €8,142 million in fiscal 2021 (previous year: €5,468 million). Driven by a still advantageous competitive situation, average selling prices increased sales by 48.1%. An increase in total volumes sold also had a positive effect on sales amounting to 1.6%. Exchange rate movements reduced sales by 0.8% in contrast.

In the EMLA region, sales grew by 50.8% to €3,878 million (previous year: €2,572 million) on account of a substantial increase in average selling prices. Sales were not noticeably affected by the changes in total volumes sold or in exchange rates. In the NA region, sales rose by 43.0% to €1,926 million (previous year: €1,347 million), with average selling prices exerting a strong positive effect. However, exchange rate movements had a slightly negative impact on sales. Total volumes sold had a neutral effect on sales overall. In the APAC region, sales climbed by 50.9% to €2,338 million (previous year: €1,549 million). Higher selling prices also gave sales a substantial boost in this case. At the same time, the expansion of total volumes sold had a significant positive effect on sales. In addition, changes in exchange rates increased sales slightly.

Performance Materials
Quarterly sales

Performance Materials
Quarterly EBITDA


EBITDA in the Performance Materials segment grew over the prior-year period to €2,572 million (previous year: €896 million). The key driver of this trend was the significant increase in margins due to an advantageous competitive situation. The higher margins were the result of a higher selling price level, which more than offset the rise in raw material prices. However, higher provisions for short-term variable compensation had a negative effect on earnings.

EBIT increased more than sixfold, amounting to €2,003 million (previous year: €323 million).

Free operating cash flow grew to €1,387 million (previous year: €176 million). This is due mainly to higher EBITDA. In contrast, an increase in funds tied up in working capital had a negative effect.

Solutions & Specialties

Solutions & Specialties key data¹

	4th quarter 2020 ²	4th quarter 2021	Change	2020 ^{2,3}	2021 ³	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth⁴		+13.0%			+26.0%	
Sales (external)	1,371	2,005	+46.2	5,060	7,554	+49.3
Intersegment sales	6	8	+33.3	23	27	+17.4
Sales (total)	1,377	2,013	+46.2	5,083	7,581	+49.1
Change in sales (external)						
Volume		-3.4%			+11.8%	
Price		+25.6%			+21.3%	
Currency		+4.1%			-0.9%	
Portfolio		+19.9%			+17.1%	
Sales by region (external)						
EMLA	499	722	+44.7	1,894	2,835	+49.7
NA	305	457	+49.8	1,175	1,594	+35.7
APAC	567	826	+45.7	1,991	3,125	+57.0
EBITDA⁵	194	112	-42.3	743	751	+1.1
EBIT ⁵	133	41	-69.2	545	503	-7.7
Cash flows from operating activities	284	175	-38.4	649	418	-35.6
Cash outflows for additions to property, plant, equipment and intangible assets	70	122	+74.3	203	273	+34.5
Free operating cash flow	214	53	-75.2	446	145	-67.5

¹ Reference information calculated based on the organizational and reporting structure as of July 1, 2021.

² Reference information based on fiscal 2019 is not presented here due to the new organizational structure.

³ Values calculated retroactively due to a change in market-rate compensation for transactions between the Performance Materials and Solutions & Specialties segments as of October 1, 2021; reference information restated accordingly.

⁴ Calculated on the basis of the definition of the core business effective March 31, 2021.

⁵ EBITDA and EBIT include the effect on earnings of intersegment sales.

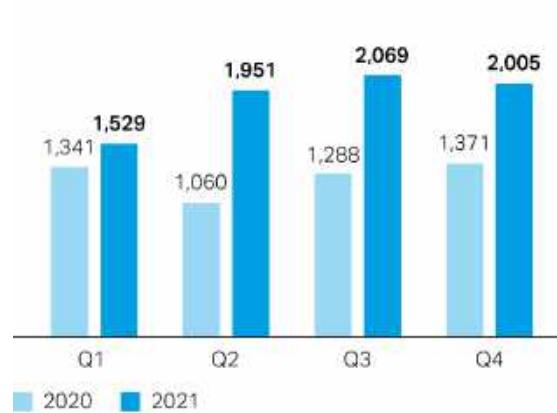
In fiscal 2021, core volumes sold in the Solutions & Specialties segment grew by 26.0% over the prior-year period. This was mainly due to additional volumes from the Resins & Functional Materials (RFM) business acquired and growth in core volumes sold in the automotive and transportation industry and the electrical, electronics and household appliances industry, especially in the EMLA and APAC regions. At the same time, reduced product availability, for instance due to raw material bottlenecks, had a negative impact on core volumes sold and therefore limited our further organic growth opportunities.

The Solutions & Specialties segment's sales were up by 49.3% to €7,554 million in fiscal 2021 (previous year: €5,060 million). A higher selling price level on account of an advantageous competitive situation increased sales by 21.3%. At the same time, the portfolio effect from the acquisition of the RFM business contributed 17.1% and the higher total volumes sold 11.8% to sales. In contrast, exchange rate developments reduced sales by 0.9%.

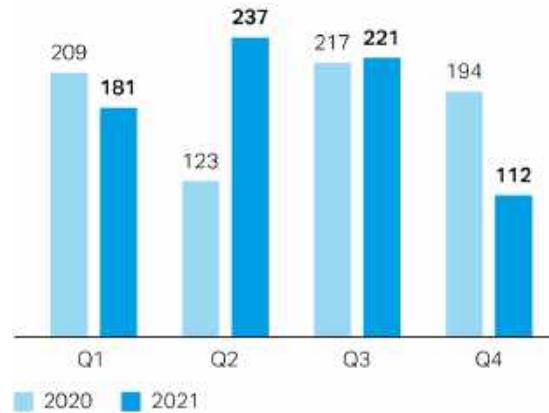
Sales in the EMLA region climbed by 49.7% to €2,835 million (previous year: €1,894 million). This was largely due to the aforementioned portfolio effect, which increased sales substantially. At the same time, higher selling prices and growth in total volumes sold each had a considerably positive effect on sales. Exchange rate movements had no notable effect on sales overall. The NA region grew sales by 35.7% to €1,594 million (previous year: €1,175 million). The previously mentioned portfolio effect, an increase in average selling prices, as well as higher total volumes sold all had a significant positive impact on sales. Exchange rate changes pushed sales slightly down. Sales in the APAC region were up by 57.0% to €3,125 million (previous year: €1,991 million). Higher selling price levels caused sales to increase strongly. Changes in total volumes sold and the aforementioned portfolio effect each had a significant positive effect on sales. At the same time, exchange rate movements were neutral overall in terms of sales.

Solutions & Specialties
Quarterly sales

€ million


Solutions & Specialties
Quarterly EBITDA

€ million



EBITDA in the Solutions & Specialties segment increased 1.1% over the prior-year period, growing to €751 million in fiscal 2021 (previous year: €743 million). Higher provisions for short-term variable compensation had a negative effect on EBITDA. Increased raw material prices outpaced higher selling prices and led to lower margins, which reduced earnings. Nonrecurring expenses related to the RFM acquisition also had a negative effect on earnings in the mid-double-digit million euro range. In contrast, positive synergy effects from the RFM acquisition were in the low double-digit million euro range thanks in particular to an efficiency boost in sales, administration, and procurement activities. An increase in total volumes sold also increased earnings.

EBIT declined 7.7% to €503 million (previous year: €545 million).

Year over year, free operating cash flow dropped by 67.5% to €145 million (previous year: €446 million). This was largely due to an increase in funds tied up in working capital, whereas in the prior-year period funds had been freed up from working capital, and to outflows for additions to property, plant, equipment and intangible assets.

Results of Operations, Financial Position, and Net Assets of Covestro AG

Covestro AG is the parent company and strategic management holding company of the Covestro Group. The principal management functions for the entire Group are performed by the Board of Management. These include strategic planning for the Group, resource allocation, and executive and financial management. Covestro AG's results of operations, financial position, and net assets are largely determined by the business performance of its subsidiaries.

The financial statements of Covestro AG are prepared in accordance with the German Commercial Code (HGB) and the German Stock Corporation Act (AktG). The company, headquartered in Leverkusen (Germany), is registered in the commercial register of the Local Court of Cologne under No. HRB 85281.

Covestro AG performs energy-specific services for Covestro Brunsbüttel Energie GmbH, Brunsbüttel, (affiliated power and gas grid operator) and therefore prepares activity reports in the areas of electricity supply and gas supply pursuant to Section 6b (3) Sentence 1 Nos. 2 and 4 of the German Energy Industry Act (EnWG).

There is a control and profit and loss transfer agreement between Covestro AG and Covestro Deutschland AG, Leverkusen (Germany). All profit not subject to a prohibition on transfer is transferred in full to Covestro AG at the end of the year. Losses are absorbed in full. Other retained earnings recognized during the term of the agreement must be released upon request by Covestro AG and used to compensate a net loss for the year or transferred as profit.

Results of Operations

Covestro AG income statement according to the German Commercial Code

	2020	2021
	€ million	€ million
Income from investments in affiliated companies – net	77	757
Interest expense – net	(23)	(23)
Other financial income – net	(16)	(7)
Net sales	22	22
Cost of services provided	(18)	(22)
General administration expenses	(46)	(80)
Other operating income	19	33
Other operating expenses	(31)	(3)
Income before income taxes	(16)	677
Income taxes	(29)	(29)
Net income/net loss	(45)	648
Retained earnings brought forward from prior year	220	–
Allocation to/withdrawal from other retained earnings	76	9
Distributable profit	251	657

In fiscal 2021, Covestro AG generated net income of €648 million (previous year: net loss of €45 million). The increase over the prior year was largely based on the higher income from investments in affiliated companies of €757 million (previous year: €77 million). Income from investments in affiliated companies was solely attributable to income from the control and profit and loss transfer agreement with Covestro Deutschland AG.

General administration expenses totaling €80 million (previous year: €46 million) mainly consisted of personnel expenses for the employees of the Group holding company and members of the Board of Management. This figure was higher in fiscal 2021 mainly on account of the increase in provisions for short-term variable compensation and costs associated with setting up the new organizational structure as of July 1, 2021 and the integration of the Resins & Functional Materials (RFM) business acquired from Koninklijke DSM N.V., Heerlen (Netherlands). The interest result included interest expense of €23 million (previous year: €20 million) for the euro bonds issued. Interest income mainly for loans extended to Covestro Deutschland AG had the opposite effect.

Other financial income and expenses mainly comprised bank fees totaling €7 million (previous year: €15 million). These included fees for the provision of credit lines and the pro rata reversal of the discount on the euro bonds issued. Other operating income mainly related to a one-time transfer of costs amounting to €33 million in connection with the acquisition of the RFM business to Group company Covestro (Netherlands) B.V., Nieuwegein (Netherlands). In the previous year, this figure included €19 million from the reversal of provisions for settling possible tax claims by Bayer AG in connection with the contribution, indemnification, and post-formation agreement. Other operating expenses mainly resulted from expenses associated with the acquisition of the RFM business in the amount of €3 million (previous year: €30 million).

The result of operations was €677 million (previous year: €–16 million) and led to income taxes of €29 million (previous year: €29 million). After adding retained earnings brought forward from prior year of €0 million (previous year: €220 million) and withdrawing an amount of €9 million from other retained earnings (previous year: €76 million), distributable profit amounted to €657 million (previous year: €251 million).

For fiscal 2021, net income was expected to far exceed the level in fiscal 2020 in line with our forecast from the Annual Report 2020. With a net profit of €648 million this forecast was met. The Board of Management and the Supervisory Board are proposing a dividend of €3.40 per share carrying dividend rights for the 2021 fiscal year to the Annual General Meeting.

Net Assets and Financial Position

Covestro AG statement of financial position according to the German Commercial Code

	Dec. 31,2020	Dec. 31,2021
	€ million	€ million
ASSETS		
Noncurrent assets	1,767	1,767
Intangible assets, property, plant and equipment	1	1
Financial assets	1,766	1,766
Current assets	5,401	5,371
Trade accounts receivable	30	67
Receivables from affiliated companies	5,337	5,219
Other assets	34	85
Deferred charges	12	12
Excess of plan assets over pension liability	9	5
Total assets	7,189	7,155
EQUITY AND LIABILITIES		
Equity	4,823	5,222
Capital stock	193	193
Own shares	–	–
Issued capital	193	193
Capital reserves	3,942	3,944
Other retained earnings	437	428
Distributable profit	251	657
Provisions	90	129
Provisions for pensions	4	9
Provisions for taxes	77	92
Other provisions	9	28
Liabilities	2,276	1,804
Bonds	2,000	1,500
Liabilities to banks	225	275
Trade accounts payable	17	12
Payables to affiliated companies	1	4
Other liabilities	33	13
Total equity and liabilities	7,189	7,155

Covestro AG had total assets of €7,155 million as of December 31, 2021 (previous year: €7,189 million). The net assets and financial position of Covestro AG are dominated by its role as a holding company in managing subsidiaries and financing corporate activities. This is primarily reflected in the levels of financial assets (24.7% of total assets), receivables from affiliated companies (72.9% of total assets), and bonds and liabilities to banks.

Receivables from affiliated companies declined by €118 million to €5,219 million (previous year: €5,337 million). This was mainly attributable to a decrease in the intercompany loan to Covestro Deutschland AG. The increase in receivables from the control and profit and loss transfer agreement had the opposite effect.

All receivables and other assets have maturities of less than one year.

Intangible assets and property, plant and equipment were immaterial. Trade accounts receivable of €67 million (previous year: €30 million) and deferred income of €12 million (previous year: €12 million) were also immaterial in relation to total assets. Other assets of €85 million (previous year: €34 million) mainly included income tax and VAT receivables.

Covestro AG's equity amounted to €5,222 million (previous year: €4,823 million). This corresponds to an equity ratio of 73.0% (previous year: 67.1%). Capital reserves increased by €2 million due to the issue of treasury shares

to employees as part of the Covestment share participation program. Net income of €648 million increased equity. Moreover, the payment of dividends for fiscal 2020 in the amount of €251 million reduced equity.

In contrast to equity, provisions amounted to €129 million (previous year: €90 million) and liabilities totaled €1,804 million (previous year: €2,276 million).

Provisions comprised provisions for pensions and other post-employment benefits of €9 million (previous year: €4 million), tax provisions of €92 million (previous year: €77 million), and other provisions of €28 million (previous year: €9 million).

The decline in liabilities was largely due to the full, early repayment at par value of the €500 million euro bond on July 7, 2021. The bond had been placed in fiscal 2016 and was scheduled to mature in October 2021. The euro bonds totaling €1.5 billion have the following maturities: €1.0 billion mature in one to five years and €500 million mature in 2027 or later. Moreover, liabilities to banks totaling €50 million are due in 2022, and €225 million are due in one to five years. Other liabilities amounting to €12 million are due in 2022, and €1 million are due in one to five years. All other liabilities are due within one year.

REPORT ON FUTURE PERSPECTIVES AND ON OPPORTUNITIES AND RISKS

Report on Future Perspectives

Economic Outlook

Global Economy

The upward trend in the global economy, which began during the reporting year, is likely to continue in fiscal 2022. The spread of Omicron and other possible coronavirus variants remains a risk. Thanks to rising vaccination rates, lessening disruption of supply chains and closing of supply gaps, recovery potential in many different service sectors, and robust consumer demand, we expect positive growth rates for all regions, although, below the 2021 levels. This should amount to cumulative global economic growth of 4.2%.

Economic growth¹

	Growth 2021	Growth ¹ forecast 2022	
		%	%
World	+5.6	+4.2	
Europe, Middle East, Latin America², Africa (EMLA)	+5.2	+3.7	
of which Europe	+5.3	+3.7	
of which Germany	+2.7	+3.8	
of which Middle East	+4.7	+4.9	
of which Latin America ²	+6.2	+2.3	
of which Africa	+3.4	+3.3	
North America³ (NA)	+5.6	+4.0	
of which United States	+5.7	+4.1	
Asia-Pacific (APAC)	+6.0	+4.8	
of which China	+8.1	+5.4	

¹ Real growth of gross domestic product; source: IHS (Global Insight), as of January 2022.

² Latin America (excluding Mexico).

³ North America (Canada, Mexico, United States).

We believe growth in the EMLA region will slightly underperform the global pace. Strong order books indicate that positive economic growth is possible in Europe as soon as supply chain disruptions resolve. Germany's export-oriented economy should see growth of 3.8%. In the Middle East, growth will likely outperform the global economy. The oil industry is expected to be a driver of this development, the stepped-up production resolved by OPEC will not be sufficient to meet rising demand, so high oil prices could initially persist. We anticipate that growth in Latin America will fall slightly below the global level, because low vaccination rates and political uncertainty have a negative effect on economic stability. Economies in Africa are unlikely to be able to expand quite as fast as in the EMLA region. In North Africa in particular, countries largely dependent on tourism remain under pressure.

For the NA region, we expect growth comparable to that of the global economy. Positive labor market developments, rising wages, and still-considerable surplus savings should generally give rise to robust consumer growth in the United States. Fiscal policy remains expansive, and the infrastructure package passed in the United States will result in expenditure totaling more than one trillion US dollars. Against this backdrop, we expect the United States to generate significant economic growth of 4.1% in the year 2022.

Economic growth in the APAC region will likely outperform the global economy. We continue to anticipate robust economic growth of 5.4% for China in fiscal 2022. The Chinese government's economic stimulus efforts should ensure stable macroeconomic performance.

Main Customer Industries

We expect growth in the automotive industry worldwide to accelerate and generate a robust positive rate of 12.5% for the year 2022 – not quite back up to pre-pandemic levels. The EMLA and NA regions are expected to be vanguards with the highest growth rates, with the APAC region also generating strong positive growth.

We anticipate positive expansion of 3.6% in the global construction industry in the year 2022. This increase will likely extend to all regions, led by NA and APAC with the fastest pace. For the EMLA region, we forecast a slightly positive growth rate.

In the year 2022, we anticipate that the global electrical, electronics, and household appliances industry will grow further, by 4.5%. All regions are expected to increase economic output, driven by the significant expansion in the APAC region. The NA and EMLA regions are forecast to post slightly positive growth rates.

In 2022, we anticipate growth of 3.7% for the global furniture industry. We expect a strongly positive trend in all regions, with EMLA and APAC performing slightly better than the NA region.

Growth in main customer industries¹

	Growth 2021	Growth forecast 2022
	%	%
Automotive	+2.2	+12.5
Construction	+2.5	+3.6
Electrical, electronics and household appliances	+13.9	+4.5
Furniture	+8.6	+3.7

¹ Covestro's estimate, based on the following sources: LMC Automotive Limited, B+L, CSIL (Centre for Industrial Studies), Oxford Economics. We limited the economic data of our "automotive and transportation" and "furniture and wood processing" main customer industries to the automotive and furniture segments (excluding the transportation or wood processing segments). As of: January 2022.

Forecast for the Covestro Group and Covestro AG

Covestro Group

The following forecast for the 2022 fiscal year is based on the business development described in this Annual Report and takes into account the potential opportunities and risks.

Given the challenging economic conditions and a more competitive situation, the Board of Management of Covestro AG expects that overall performance in fiscal 2022 will be slightly down on the previous year. Despite that, we anticipate that demand for our products will continue to rise and we will generate a significant premium on the cost of capital.

From fiscal 2022 onward, Covestro's management system will have four instead of the previous three components: Core volume growth, the previous key management indicator for growth, will be replaced with EBITDA. Liquidity is measured in terms of free operating cash flow (FOCF), and profitability in terms of return on capital employed (ROCE) above the weighted average cost of capital (WACC). In addition, a sustainability component has been added, which takes account of selected ESG (environmental, social, governance) criteria. In the year 2022, direct and indirect (Scope 1 und 2) GHG emissions will be relevant for this component.

Forecast for key management indicators

	2021	Forecast 2022
EBITDA ¹	€3,085 million	Between €2,500 million and €3,000 million
Free operating cash flow (FOCF) ²	€1,429 million	Between €1,000 million and €1,500 million
ROCE ³ above WACC ⁴	12.9% points	Between 5% points and 9% points
GHG emissions ⁵ (CO ₂ equivalents)	5.2 million metric tons	Between 5.6 million metric tons and 6.1 million metric tons

¹ EBITDA: EBIT plus depreciation, amortization, and impairment losses; less impairment loss reversals on intangible assets and property, plant and equipment.

² Free operating cash flow (FOCF): cash flows from operating activities less cash outflows for additions to property, plant, equipment and intangible assets.

³ ROCE: ratio of the adjusted operating result (EBIT) after imputed income taxes to capital employed.

⁴ WACC: weighted average cost of capital reflecting the expected return on the company's equity and debt capital. A figure of 7.0% has been taken into account for the year 2022 (2021: 6.6%).

⁵ Greenhouse gas emissions (Scope 1 and 2, GHG Protocol) at main production sites (responsible for more than 95% of our energy usage).

For the Covestro Group's EBITDA, we forecast a figure of between €2,500 million and €3,000 million. The Performance Materials segment's EBITDA is expected to be significantly down on the amount for the year 2021. In contrast, we project EBITDA to be significantly higher than the figure recorded in the year 2021 in the Solutions & Specialties segment.

The Covestro Group's FOCF is forecast to total between €1,000 million and €1,500 million. For the Performance Materials segment, we expect FOCF to fall significantly short of the figure for the year 2021. In the Solutions & Specialties segment, however, we project FOCF to be significantly higher than the amount of the year 2021.

We anticipate that ROCE above WACC will be between 5% points and 9% points. This reflects average capital employed that is higher than in the year 2021 because the acquired Resins & Functional Materials business was included for the full year.

We anticipate that the Covestro Group's GHG emissions, measured in CO₂ equivalents, will be between 5.6 million metric tons and 6.1 million metric tons. This increase is mainly attributable to the composition of externally procured power, which is less favorable for us, and to the growth of the business.

Covestro AG

The earnings of Covestro AG, as the parent company of the Covestro Group, largely comprise the earnings of that company's subsidiaries. As a result of the profit and loss transfer agreement with Covestro Deutschland AG, net income of Covestro AG is particularly impacted by that company's income from equity investments in Germany and abroad. Due to higher equity investment income expected in fiscal 2022, Covestro AG should generate net income significantly above the level of the year 2021.

Opportunities and Risks Report

As a company with global operations, Covestro is exposed to opportunities and risks on a daily basis. Addressing them is an integral part of our business operations. We regard an opportunity as an internal or external development or event that could cause a positive change in the Group's forecasts or targets. Conversely, a development or event in or outside the company that could lead to a negative deviation from the Group's forecasts or targets is considered a risk.

Currently, there are no discernible risks that could endanger the continued existence of the company.

Group-Wide Opportunities and Risk Management System

Conscientious management of opportunities and risks is part of responsible corporate governance and is the foundation of sustainable growth and financial success. This includes the ability to systematically identify and take advantage of opportunities while managing risks at the same time. The entrepreneurial decisions we make daily in the course of business processes are based on balancing opportunities and risks. We therefore regard the management of our opportunities and risks as an integral part of our overall business management system rather than as the task of a specific corporate function. Risk management at Covestro also includes nonfinancial risks, which are managed in our Group-wide risk management system.

Opportunities and risk management system



Our opportunity and risk management begins with strategy and planning processes, from which relevant external and internal opportunities and risks of an economic, ecological, or social nature are derived. Financial and nonfinancial opportunities and risks are identified by observing and analyzing trends along with macroeconomic, industry-specific, regional, and local developments.

The identified opportunities and risks are subsequently evaluated and incorporated into our strategic and operational processes. We aim to avoid or mitigate risks by taking appropriate countermeasures, or to transfer them to third parties (such as insurers) to the extent possible and economically acceptable. At the same time, we strive to take maximum advantage of opportunities by incorporating them into our entrepreneurial decisions. We consciously accept and bear manageable and controllable risks that are in reasonable proportion to the anticipated opportunities. Covestro regards these as the general risks of doing business. Opportunities and risks are continuously monitored so that, for example, changes in the economic or legal environment can be identified at an early stage and suitable countermeasures can be initiated, if necessary.

To enable the Board of Management and the Supervisory Board to monitor material business risks as legally required, the following systems are in place: an internal control system ensuring proper and effective financial reporting pursuant to Section 289, Paragraph 4 and Section 315, Paragraph 4 of the German Commercial Code (HGB); a compliance management system; and a risk early warning system pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act (AktG).

The various management systems are based on different risk types, risk characteristics, and timelines. Different processes, methods, and IT systems are therefore applied to identify, evaluate, manage, and monitor risks. The principles underlying the various systems are documented in Group policies that are integrated into our central document control processes and are accessible to all employees via the intranet. Covestro's Board of Management is primarily responsible for supervising the Group's risk management. The Chief Financial Officer of Covestro AG is responsible for the effectiveness and appropriateness of the system as a whole in accordance with the areas of responsibilities.

The various systems are described below.

Internal Control System for (Group) Accounting and Financial Reporting (Report pursuant to Section 289, Paragraph 4 and Section 315, Paragraph 4 of the German Commercial Code)

The purpose of our internal control system (ICS) for the (Group) accounting and financial reporting process is to ensure proper and effective accounting and financial reporting in accordance with Section 289, Paragraph 4 and Section 315, Paragraph 4 of the German Commercial Code.

The ICS is designed to guarantee timely, uniform, and accurate accounting for all business processes and transactions based on applicable statutory regulations, accounting and financial reporting standards, and the internal Group regulations that are binding on all consolidated companies.

The ICS concept is based on two frameworks: the Internal Control – Integrated Framework (2013) of the Committee of the Sponsoring Organizations of the Treadway Commission (COSO) and the Control Objectives for Information and Related Technology (COBIT) framework. It is designed to address the risk of misreporting in the (consolidated) financial statements. Risks are identified and evaluated, and steps are taken to counter them. ICS standards mandatory throughout the Covestro Group, such as system-based and manual reconciliation processes and functional separation, have been derived from these frameworks and stipulated by the corporate Accounting function.

The management of each Covestro Group company is responsible for implementing the ICS standards at the local level.

The effectiveness of the ICS processes for accounting and financial reporting is evaluated on the basis of a cascaded self-assessment system that starts with the persons directly involved in the processes, then involves the principal managers responsible for accounting and financial reporting, and ends with Covestro AG's Board of Management. The IT systems in use throughout the Covestro Group ensure the uniform and audit-proof documentation and transparent presentation of the risks, controls, and effectiveness evaluations associated with all ICS-relevant business processes. It should generally be noted that, however carefully designed, an internal control system cannot provide absolute assurance that material misstatements in the accounting will be avoided or identified in a timely manner.

Continually ensuring the effectiveness and suitability of our ICS considering process changes, new business models, acquisitions and divestitures, and technical specifications requires regular reviews and updating of the controls applied. To identify possible potential for improvement in the area of our nonfinancial performance indicators we analyzed our existing ICS in this regard in fiscal 2021.

In fulfillment of the Chief Financial Officer's responsibilities, the CFO of Covestro AG has confirmed the criteria and the effective functioning of the internal control system for accounting and financial reporting for fiscal 2021.

Internal Control System to Ensure Compliance

Compliance risks are systematically identified and assessed as part of Covestro's Group-wide risk management. Risk owners assess the compliance risks that have been identified. A risk matrix is used to define focal points of compliance tasks at Covestro. The findings of a risk-based analysis enabled Covestro to identify four key topics: antitrust law, corruption, data protection, and foreign trade law. The General Counsel/Chief Compliance Officer is the risk owner responsible for breaches of antitrust law and corruption, while the Global Export Control Officer oversees the risk of breaches of foreign trade law, and the Group Data Protection Officer is assigned to handling the risk of loss and improper handling of personal data. With respect to corruption, areas including gifts and invitations, relationships with government officials, and relationships with certain business partners such as sales agents were identified as being especially risk-relevant. A corruption risk analysis was performed in the year 2020 for all companies in which Covestro holds a majority interest. In the reporting year, we focused on the operational implementation of the updated instructions on handling conflicts of interest.

Many controls have been implemented at both the global and local levels to reduce the number of compliance risks. To the extent possible, we integrate the compliance controls into our internal control system. The effectiveness of the compliance controls is evaluated on the basis of a cascaded self-assessment system, as are the ICS processes for accounting and financial reporting. The results of the effectiveness evaluations are documented in the global system for the ICS processes. The Corporate Audit function carries out dedicated compliance checks at regular intervals in the larger companies. In the smaller companies, compliance aspects are part of a general review.

Risk Early Warning System (Report Pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act)

Covestro has implemented a structured process for the early identification of any potentially disadvantageous developments that could have a material impact on our business or endanger the continued existence of the company. This process satisfies the legal requirements regarding an early warning system for risks pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act, and is aligned with the international risk management standard COSO II Enterprise Risk Management – Integrated Framework (2004). A central unit defines, coordinates, and monitors the framework and standards for this risk early warning system. In this context, our risk early warning system was modified in fiscal 2021 in line with the updates to the Auditing Standard 340 of the Institute of Public Auditors in Germany (IDW). Covestro now uses a software package that simplifies the aggregation of risks, provides displays of various interdependencies, and compares individual risks to the newly defined risk bearing capacity.

Throughout the year, various global subcommittees provide new and updated information about identified risks. The Covestro Corporate Risk Committee met three times in fiscal 2021 to review the risk landscape as well as the various risk management and monitoring mechanisms that are in place, and to take any necessary measures. Additionally, we conduct an ad-hoc process for newly identified risks throughout the year so that these are immediately incorporated into the risk management system. These ad-hoc risks are identified and their handling is determined based on risk assessments and depending on the defined thresholds.

Risks are evaluated using estimates of the potential impact after taking into account countermeasures, the likelihood of their occurrence, and their relevance for our external stakeholders. The potential economic losses are projected using the expected EBITDA loss. All material risks and their countermeasures are documented in a new Group-wide database that is at the heart of the new software. The risk early warning system is reviewed regularly over the course of the year. Significant changes must be promptly entered in the database and reported to the Board of Management. In addition, a report on the risk portfolio is submitted to the Audit Committee several times a year and to the Supervisory Board at least once a year.

The probabilities of occurrence revised in the previous year and the cumulative loss amounts (€50 million or more) were transferred to a new software.

 See "Opportunities and Risks."

The following matrix illustrates the direct financial and indirect financial criteria for rating a weighted risk as high, medium or low. The same applies to the classification of nonfinancial risks.

Rating matrix

Indirect financial impact ¹	and/or	Accumulated impact ¹ (€ million)	Likelihood of occurrence within 1 year				
			Verylow	Low	Medium	High	Very high
Critical		>1,000					
Significant		>300 – 1,000					
High		>150 – 300					
Moderate		≥50 – 150					

Weighted risk occurrence ■ Low ■ Moderate ■ High

¹ An individual risk that could have both a direct financial and an indirect financial impact of different severities is always classified based on the higher level of risk.

Criteria for the classification of indirect financial impact

Indirect financial impact			
Moderate	High	Significant	Critical
Moderate effect on achieving outcome objectives/national reporting	High effect on achieving outcome objectives/national reporting	Significant effect on achieving outcome objectives/international reporting in key sales markets	Critical effect on achieving outcome objectives/permanent international reporting in sales markets of major significance

Process-Independent Monitoring

The effectiveness of our management systems is evaluated at regular intervals by the Corporate Audit function, which performs an independent and objective audit focused on verifying compliance with laws and policies. Corporate Audit also supports the company in achieving its goals by systematically evaluating the efficiency and effectiveness of governance, risk management, and control processes and helping to improve them. The selection of audit targets follows a risk-based approach. Corporate Audit performs its duties according to internationally recognized standards. The Supervisory Board's Audit Committee is regularly informed about the results of audits and also receives an annual report on the internal control system and its effectiveness.

Risks in the areas of occupational health and safety, plant safety, environmental protection, and product quality are assessed through specific health, safety, environment, energy, and quality (HSEQ) audits.

The external auditor assesses the early warning system for risks as part of its audit of the annual financial statements, focusing on whether the system is fundamentally suitable for identifying at an early stage any risks that could endanger the company's continued existence so that suitable countermeasures can be taken. The auditor also reports at regular intervals to Covestro AG's Board of Management and the Audit Committee as well as the Supervisory Board on the results of the audit and any weaknesses identified in the internal control system. Audit outcomes are also taken into account in the continuous improvement of our management processes.

Opportunities and Risks

Overall Assessment of Opportunities and Risks

The overall opportunity and risk position of the Group, has not changed significantly compared to the previous year. The financial and nonfinancial risks reported in the following do not endanger the company's continued existence, nor could we identify any risk interdependencies that could combine to endanger the company's continued existence.

Based on our product portfolio, our know-how, and our innovation capability, we are confident that we can use the opportunities resulting from our entrepreneurial activity and successfully master the challenges resulting from the risks stated below.

Opportunities and Risks in General and in the Company's Business Environment

The risks outlined below have material effects on EBITDA and, in individual cases, the FOCF of our Group. In this context, risks are deemed material if the potential loss to Covestro is estimated at €50 million or more, and/or they have at least a moderate potential indirect financial impact regardless of their likelihood of occurrence. The likelihood of occurrence of the risks is used for internal management purposes to define focus areas for the Corporate Risk Committee. The risks are more highly aggregated in this report than in our internal documentation. Various individual risks are combined into risk categories we have defined for this purpose. The following overview shows the levels of risk allocated to the individual risks within each category. A risk category can therefore include more than one weighted risk occurrence level. The order in which the risk categories are listed does not reflect their significance.

Risk categories by weighted risk occurrence

Risk categories...	Weighted risk occurrence		
	Low	Medium	High
...in the business environment			
Market growth	●	●	
Regulations/policies		●	
Competition	●		
...in the company-specific environment			
Procurement	●	●	
Information technology		●	
Employees	●		
Production/value creation	●	●	
Product stewardship	●	●	
Law/compliance	●	●	

- The risk category includes at least one individual risk with this weighted risk occurrence.

Business Environment

Market Growth

General economic conditions worldwide and, in particular, in the geographic regions in which Covestro operates are a significant factor affecting the company's earnings, since their effect on the industries in which Covestro's direct and indirect customers operate affects demand for our company's products.

Negative economic developments triggered by a variety of events (e.g., worldwide pandemics) may have a negative impact on the global economy and international financial markets in general. As a rule, this also adversely affects the sales markets for our products, which then usually decreases Covestro's sales volumes and earnings. However, the extent of the impact of economic developments on sales volumes and earnings also depends on capacity utilization rates in the industry, which in turn depend on the balance between supply and

demand for the industry's products. Downturns in demand lead to reduced sales volumes and, ultimately, to reduced capacity utilization, which negatively impacts margins. Conversely, a positive economic environment characterized by growth and upward trends normally leads to improved business success.

Historically, the markets for most of our products have experienced periods of tight supply, causing prices and profit margins to increase. Periods of significant capacity additions, however, resulted in oversupply and declining prices and profit margins. These shifting supply cycles are often caused by capacity additions of new production facilities or the expansion of existing production facilities, which are necessary to create or sustain economies of scale in the industry. These are followed by a decline of industry-wide utilization rates.

Regulations and Policy

The international nature of Covestro's business exposes it to substantial changes in economic, political, and social conditions and the resulting statutory requirements of the countries in which Covestro operates. The associated opportunities and risks can have both a positive and negative effect on the company's business and significantly influence its prospects.

Competition

An economic downturn, changes in competitor behavior, or the emergence of new competitors can lead to greater competition and, as a result, overcapacities in the market or increased pressure on prices. These risks are rated lower at the moment than in the previous year.

Further opportunities and risks may also arise if actual market developments vary from those we predict in the "Economic Outlook" section. Where macroeconomic developments deviate from forecasts, this may either positively or negatively impact our sales and earnings expectations. Continuous analysis of the economic environment and of economic forecasts enables us to utilize the identified opportunities and to mitigate risks by adjusting our business strategy.

Company-Specific Environment

Procurement

Our Supplier Code of Conduct sets forth our sustainability principles and explains what we expect from our partners along the value chain.

 See "Sustainability in the Supply Chain."

The Code requires that our suppliers comply with environmental regulations as well as occupational health and safety rules, respect human rights and therefore, for example, avoid child labor in any form. Violations of the Code may harm our company's reputation. Through supplier assessments and audits, we verify whether our partners along the supply chain actually implement and adhere to our Code of Conduct. Covestro's Supplier Code of Conduct is based on the principles of the United Nations Global Compact and our position on human rights.

Covestro requires significant quantities of different energy forms and petrochemical raw materials for production processes. Procurement prices for these forms of energy and raw materials may fluctuate significantly due to market conditions or legislation. Experience from the past has shown that higher production costs cannot always be passed on to our customers through price adjustments. Conversely, lower raw materials prices that do not directly reduce the selling price by the full amount can lead to improved margins.

We purchase important raw materials based on long-term supply agreements and pursue active supplier management to minimize procurement-related risks such as supply shortages or substantial price fluctuations.

Information Technology (IT)

Business and production processes as well as the internal and external communications of the Covestro Group are increasingly dependent on global IT systems. A significant technical disruption or failure of IT systems could severely impair our business and production processes. Technical precautions such as data recovery and continuity plans are defined and continuously updated in close cooperation with our internal IT organization.

Confidentiality during data processing is of fundamental importance for Covestro. A loss of data and information confidentiality, integrity, or authenticity could lead to manipulation and/or the uncontrolled outflow of data and expertise. We have measures in place to counter these risks, including a sophisticated authorization system.

Our Chief Information Technology Security Officer (CISO) and the department specially focused on this issue promote the IT security strategy and its implementation throughout the Group. These measures are designed to guarantee optimum protection based on state-of-the-art technology.

Innovation

We continually analyze global trends and develop innovative solutions to address them, thereby mastering the challenges and taking advantage of the opportunities that arise from these trends.

 See "Innovation."

Customers are increasingly choosing sustainable products as a result of a growing environmental awareness and interest in environmental protection as well as increasing demands for fair working conditions. Our product portfolio offers such solutions for different areas of everyday life. We therefore see an opportunity here to expand our relevant market shares and to grow in these segments. A key focus of Covestro's strategy is sustainability and efficient production with the goal of making Covestro fully circular. To this end, we are developing new technologies, products, and business models that reduce energy usage and carbon emissions to unlock opportunities for Covestro.

The finite nature of natural resources and efforts to protect the climate are boosting the demand for innovative products and technologies that reduce resource consumption and lead to lower emissions. This trend is being reinforced by increasingly stringent regulatory requirements and growing consumer awareness of the need to use resources sustainably. Covestro is therefore developing new materials that help to further increase energy efficiency and lower emissions. For example, the polyurethane we manufacture is used in the construction industry for thermal insulation, thus improving its positive energy balance, while our polycarbonate is used in the automotive industry to reduce vehicle weight and thus fuel consumption.

Ongoing technological advancements are changing the world we live in and the way we do business. The use of cutting-edge digital technologies will help us add value along the entire value chain by optimizing the supply chain, stimulating growth, and developing new business models.

 See "Circular Economy and Climate Neutrality."

Employees

Skilled and dedicated employees are essential for the company's success.

 See "Employees."

In countries with full employment, there is keen competition among companies for highly qualified personnel and employees in key positions in particular. If we are unable to recruit a sufficient number of employees in these countries and retain them within Covestro, this could have significant adverse consequences for the company's future development. The risk of not knowing precisely when employees could leave the organization can potentially result in there not being sufficient run-up time for finding suitable replacements. We currently consider this a low-level risk.

Covestro has introduced appropriate employee recruitment and development measures based on the analysis of future requirements. We aim to convince our target groups of the advantages of working for Covestro through comprehensive human resources marketing, including an employer branding campaign. Our human resources policies are based on the principles enshrined in our position on human rights, the Corporate Compliance Policy, and our corporate values. Essential elements include competitive compensation containing performance-related

components as well as an extensive range of training and development opportunities. In addition, our focus on diversity enables us to tap the full potential of the employment market.

Covestro cultivates good relationships with its employees, employee representatives, and unions so that all issues concerning HR policy, working conditions, and change processes can always be resolved by management and labor in a collaborative manner.

Production and Value Creation

We place great importance not only on product safety but also on protecting our employees and the environment.

 See "Health and Safety."

Risks associated with the production, filling, storage, or shipping of products are mitigated using an integrated health, safety, environmental, energy, and quality management system.

 See "Integrated Management System for Health, Safety, Environment, Energy, and Quality."

If these risks were to materialize, this could result in personal injury, property and environmental damage, production stoppages, business interruptions and liability for compensation payments.

Covestro uses large quantities of hazardous substances, generates hazardous wastes, and emits wastewater and air pollutants in its production operations.

 See "Environmental Impact of Own Operations."

Consequently, its operations are subject to extensive environmental, health, and safety (EHS) laws, regulations, rules, and ordinances at the international, national, and local levels in multiple jurisdictions. The company must dedicate substantial resources to complying with these EHS regulations and the additional voluntary commitments. Costs relating to the implementation of and compliance with EHS requirements are part of Covestro's operating costs and must therefore be covered by the prices at which the company is able to sell its products. Competitors of Covestro that are not affected by equally strict EHS requirements may have lower operating costs and, as a consequence, their products may be priced lower than those of Covestro.

Operations at our sites may be disrupted by external influences such as natural disasters, fires/explosions, sabotage, or supply shortages for our principal raw materials or intermediates. We mitigate this risk to the extent possible and economically feasible by distributing production of certain products among multiple sites and by building up safety stocks. Furthermore, a security and crisis management system has been implemented for all our production sites as a mandatory component of our HSEQ management activities. It is aimed at protecting employees, neighbors, the environment, and production facilities from the risks described. The "Corporate Security" and "Crisis Management" Group Regulations forms the foundation for this.

Covestro operates in markets in which the long-term trend is toward a balance between supply and demand. However, in the event of planned or unplanned closures, interruptions, or even the elimination of one of our competitors, Covestro may have the opportunity to capture more of the market in terms of profitability and growth in the short to medium term.

Increased ecological awareness creates opportunities for Covestro in two ways. On the one hand, the development of innovative materials for our customers opens up market potential. On the other hand, if we succeed in increasing the energy efficiency of our own production processes, we can mitigate environmental impacts and achieve cost savings at the same time. By developing new production technologies and applying internationally recognized energy management systems, we aim to help meet increasing environmental requirements, further reduce emissions and waste, and increase energy efficiency. In this way, we not only contribute to sustainable climate protection and the conservation of natural resources, but also achieve cost and competitive advantages.

Organic growth through investment projects may involve risks in relation to the overall project scope, location, and timing. These risks are addressed through established processes that involve a variety of internal and external stakeholders. A robust investment assessment process helps to ensure that we are capitalizing on

organic growth opportunities at the right time. These projects are reviewed throughout the project timeline so that any potential changes in the market situation are considered, enabling us to react in a timely manner, if necessary.

Product Stewardship

The Covestro Group is exposed to the risk of negative publicity, press speculation, and potential or actual legal proceedings in connection with its business, which may harm its reputation. The development of a negative social perception of the chemical industry in general or Covestro's processes, products, or external communications in particular could additionally have a negative impact on the company. The incorrect use and handling of our products by third parties can also harm the company's reputation.

In addition, concerns about product safety and environmental protection could influence public perceptions of Covestro's products and operations, the viability of certain products, its reputation, and its ability to attract and retain employees. Due to the technical expertise required to fully understand the possible effects of the chemical constituents of our products, the company's reputation may suffer due to claims that such compounds are of a harmful nature, even if these claims can be disproved by experts. Such statements may lead to changes in consumer preferences or additional governmental regulations even before any harm is scientifically substantiated and possibly despite scientific evidence to the contrary.

 See "Product Stewardship."

Law and Compliance

Ethical conduct is a matter of essential importance for society. Many stakeholders evaluate companies according to whether they conduct themselves not just "legally" but also "legitimately." The Covestro Group is committed to sustainable development in all areas of its commercial activity. Any violations of this corporate commitment can result in adverse media reporting and thus lead to a negative public perception of the Covestro Group. We counter this risk through responsible corporate management that is geared toward generating not only economic but also ecological and societal benefit.

The Covestro Group is exposed to risks from legal disputes or proceedings to which we are currently a party or that could arise in the future, particularly in the areas of product liability, competition and antitrust law, patent law, tax law, and environmental protection.

Investigations of possible legal or regulatory violations, such as potential infringements of antitrust law or the use of certain marketing and/or sales methods, may result in the imposition of civil or criminal penalties – including substantial monetary fines – and/or other adverse financial consequences. They can also harm Covestro's reputation and ultimately hamper our commercial success.

Legal proceedings currently considered to involve material risks are described in the Notes to the Consolidated Financial Statements.

 See note 26 "Legal Risks" in the Notes to the Consolidated Financial Statements.

Financial Opportunities and Risks

The Covestro Group is exposed to liquidity risks, foreign currency and interest-rate opportunities and risks, credit risks, and risks resulting from obligations for pensions and other post-employment benefits. Appropriate processes to manage financial opportunities and risks have been established and documented. One component of this is financial planning, which serves as the basis for establishing liquidity needs and foreign currency risk. Financial planning comprises a planning horizon of 12 months and is regularly updated.

The section below and the Notes to the Consolidated Financial Statements present the financial opportunities and risks material to the Covestro Group – independent of their likelihood of occurrence.

 [See note 24.2 "Financial Risk Management and Information on Derivatives" in the Notes to the Consolidated Financial Statements.](#)

Liquidity Risk

Liquidity risk is the risk of not being able to meet existing or future payment obligations. The liquidity status of all material Group companies is continuously planned and monitored. Liquidity is secured by cash pooling agreements as well as internal and external financing. A syndicated revolving credit facility totaling €2.5 billion renewed and increased in fiscal 2020 offers additional financial flexibility.

Foreign Currency Opportunities and Risks

For the Covestro Group, foreign currency opportunities and risks result from changes in exchange rates and the related changes in value.

Material foreign currency exposures from operating and financial activities are fully hedged through forward exchange contracts.

Anticipated foreign currency exposures were not hedged in the reporting year. These exposures are also hedged using forward exchange contracts if the foreign currency risk increases significantly.

Interest Rate Opportunities and Risks

Interest rate opportunities and risks for the Covestro Group result from changes in capital market interest rates, which could lead to changes in the fair value of fixed-rate financial instruments and in interest payments in the case of floating-rate instruments. To minimize adverse effects, interest rate risk is managed centrally based on an optimized debt maturity structure.

Credit Risks

Credit risks arise from the possibility that the value of receivables or other financial assets of the Covestro Group may be impaired because counterparties cannot meet their payment or other performance obligations. To manage credit risks from receivables, credit managers are appointed who regularly analyze customers' creditworthiness and set credit limits.

Risk to Pension Obligations from Capital Market Developments

The Covestro Group has obligations to current and former employees related to pensions and other post-employment benefits. Changes in relevant measurement parameters such as interest rates, mortality rates, and salary increase rates may raise the present value of these obligations, resulting in increased costs for pension plans. A proportion of the Covestro Group's pension obligations is covered by plan assets. Declining or even negative returns on the investment of the plan assets may adversely affect their future fair value. Both these effects may negatively impact the company's earnings and may necessitate additional payments by the company.

We address the risk of market-related fluctuations in the value of plan assets through balanced strategic investments and by constantly monitoring investment risks with regard to pension obligations. In addition, funding measures for pension obligations are regularly reviewed, taking into account country-specific regulatory requirements and liquidity to reduce funding gaps and thereby limit this risk.

 [See note 20 "Provisions for Pensions and Other Post-Employment Benefits" in the Notes to the Consolidated Financial Statements.](#)

CORPORATE GOVERNANCE

Covestro's corporate governance is characterized by a sense of responsibility as well as ethical principles. Covestro places great importance on responsible corporate governance. This promise to shareholders, business partners, and our employees is based on our commitment to the German Corporate Governance Code (GCGC) and Articles of Incorporation that reflect these standards. In pursuing our business activities, we follow company principles that exceed the requirements of the law and the GCGC. A key concern is combining business success with environmental and social goals, so when making any business decision, we always consider the three dimensions of sustainability – people, planet, profit. The principles guiding our actions, which are also based on these dimensions, are documented in six policies applicable throughout the Group. These provide our employees with guidance in the areas of value creation; sustainability; innovation; employees; health, safety, environment, energy, and quality (HSEQ); and compliance. The standards contained in these policies are mandatory for all employees worldwide.

 Additional information is available at: www.covestro.com/en/sustainability/service-downloads/policies-commitments

The Board of Management and Supervisory Board provide information pertaining to corporate governance in the sections that follow, including a Declaration on Corporate Governance for Covestro AG pursuant to Section 289f and for the Covestro Group pursuant to Section 315d of the German Commercial Code (HGB). Pursuant to Section 317, Paragraph 2, Sentence 6 HGB, the disclosures in the Declaration on Corporate Governance are not included in the financial statement audit.

Declaration on Corporate Governance

Declaration of Conformity by the Board of Management and the Supervisory Board of Covestro AG on the German Corporate Governance Code Pursuant to Section 161 of the German Stock Corporation Act

The Board of Management and Supervisory Board issued the current Declaration of Conformity with the GCGC pursuant to Section 161 of the German Stock Corporation Act (AktG) in December 2021. In this Declaration, Covestro AG affirms that in the reporting year it complied with the recommendations of the Commission of the German Corporate Governance Code, as amended on December 16, 2019, published by the Federal Ministry of Justice and Consumer Protection on March 20, 2020 in the official part of the Federal Gazette, and will continue to do so in the future. Corporate governance disclosures and supplementary information on the Board of Management and Supervisory Board, along with declarations of conformity with the GCGC from December 2021 and prior years are published on Covestro's website.

 Additional information is available at: www.covestro.com/en/company/management/corporate-governance

Composition, Duties and Activities of the Board of Management and Supervisory Board

Board of Management

Duties and Activities of the Board of Management

The Board of Management runs the company on its own responsibility with the goal of sustainably increasing the company's enterprise value and achieving defined corporate objectives. In doing so, it takes into account the interests of shareholders, employees, and other stakeholders. The Board of Management performs its duties according to the law, the Articles of Incorporation, the Board of Management's rules of procedure, and the recommendations of the GCGC as stated in the Declaration of Conformity. It ensures compliance with the law and internal company policies, and works with the company's other governance bodies in a spirit of trust.

 The current rules of procedure of the Board of Management are available at:
www.covestro.com/en/company/management/corporate-governance

The Board of Management defines the long-term goals and strategy for the company and sets forth the principles and policies for the resulting corporate policies. Furthermore, it coordinates and monitors the most important activities, defines the company's portfolio, develops and deploys managerial staff, allocates resources, and decides on the financial steering and reporting of the Covestro Group.

During their period of service for Covestro, Board of Management members are subject to a comprehensive non-compete clause. They are obligated to work in the company's interests at all times and may not pursue any personal interests in making decisions for the company or take advantage of the company's business opportunities for themselves. All Board of Management members are required to immediately disclose any conflicts of interest to the Chair of the Supervisory Board's Human Resources Committee and the Board of Management Chair, and inform the other Board of Management members of this fact. Other duties, particularly holding seats on Supervisory Boards or comparable governing bodies at companies outside the Group, may only be assumed with the approval of the Supervisory Board.

The members of the Board of Management bear joint responsibility for running the business as a whole. However, the individual members manage the areas assigned to them on their own responsibility within the framework of the decisions made by the full Board. The allocation of duties among the members of the Board of Management is defined in a written schedule appended to its rules of procedure and listed in the following table.

The full Board of Management makes decisions on all matters of fundamental importance and in cases where a decision of the full Board is prescribed by law or otherwise mandatory. The rules of procedure of the Board of Management contain a list of topics that must be dealt with and resolved by the full Board.

Board of Management meetings are held regularly and are convened by the Chair of the Board of Management. Any member of the Board of Management may also request that a meeting be convened, notifying the other members of the matter for discussion. The Board of Management makes decisions by a simple majority of the votes cast, except where unanimity is required by law. In the event of a tie, the Chair casts the deciding vote.

According to the Board of Management's rules of procedure, the Chair bears particular responsibility for functional coordination of all Board of Management areas. The Chair represents the Board of Management as well as Covestro AG and the Group in dealings with the public and other third parties.

Composition of the Board of Management

The Supervisory Board appoints the Board of Management of Covestro AG and its Chair. The Board of Management currently has no committees. In the 2021 fiscal year, the composition of the Board of Management was as follows:

Areas of responsibility¹

Name	Position	Areas of responsibility	Memberships ²
Dr. Markus Steilemann	Chief Executive Officer	<ul style="list-style-type: none"> • Communications • Corporate Audit • Human Resources • Strategy • Sustainability & Public Affairs • Group Innovation 	
Sucheta Govil	Chief Commercial Officer	<ul style="list-style-type: none"> • Performance Materials • Tailored Urethanes • Coatings & Adhesives • Engineering Plastics • Specialty Films • Elastomers • Thermoplastic Polyurethanes • Supply Chain & Logistics EMLA, NA, APAC 	Independent non-executive director of Europcell plc (United Kingdom)
Dr. Klaus Schäfer	Chief Technology Officer	<ul style="list-style-type: none"> • Engineering • Process Technology • Group Health, Safety and Environment • Group Procurement 	Member of the Supervisory Board of TÜV Rheinland AG
Dr. Thomas Toepfer	Chief Financial Officer Labor Director	<ul style="list-style-type: none"> • Accounting • Controlling • Finance & Insurance • Information Technology & Digitalization • Investor Relations • Law, Intellectual Property & Compliance • Portfolio Development • Taxes 	Member of the General Partners' Committee of CLAAS KGaA mbH (since September 1, 2021)

¹ As of December 31, 2021.

² Memberships on supervisory boards and memberships in comparable supervising bodies of German or foreign corporations.

Objectives and Concept for the Composition of the Board of Management

Assisted by the Human Resources Committee and the Board of Management, the Supervisory Board arranges long-term succession planning for individual Board of Management members. It conducts a systematic process for selecting candidates for the Board of Management, while following the recommendations of the GCGC. In accordance with Covestro's corporate values, it also observes the diversity principle, i.e., balancing the Board's composition in terms of age, educational and professional background as well as a balanced ratio of male and female members. For instance, Board of Management members will generally not be appointed if they are over the age of 63. The Board of Management as a whole should represent a variety of backgrounds and possess extensive experience in corporate strategy, innovation, production and technology, marketing and sales, finance, leadership and sustainability management.

When filling specific Board of Management positions, the Supervisory Board also develops a skills profile that is based on the diversity criteria and used to evaluate candidates from within and outside the company. Decisions are made in the company's interest and taking into account all of the circumstances of each individual case.

Implementation Status of the Objectives

Covestro AG's Board of Management currently has four members. The goals regarding age structure and function-specific expertise were generally met in fiscal 2021. The Board of Management additionally meets the education and professional background requirements. The Board of Management's members ranged in age from 49 to 59 in fiscal 2021. As a whole, the Board of Management features members with a range of different educational backgrounds. In particular, they possess many years of experience in the following areas: engineering, physics and chemistry, business administration, and finance. The members of the Board of Management have gathered extensive professional experience in Germany and abroad as well as in the petroleum and chemical industries. In the course of their careers, they have held leadership positions in marketing and sales, innovation, corporate strategy, production and technology, and finance, among others, and possess extensive experience in human resources management and project management.

Promotion of Equal Participation of Women and Men in Leadership Positions

The Act Supplementing and Amending the Law on Equal Participation of Women and Men in Leadership Positions in the Private and Public Sectors of August 7, 2021, (FüPoG II) requires listed companies in Germany that are subject to codetermination rules whose Boards of Management have more than three members to appoint at least one woman and one man in the future. The duty stipulated by the First Leadership Positions Act (FüPoG I) as far back as 2015 remains in effect: these companies are required to define target quotas for appointing women to their Supervisory Boards, Boards of Management, and the two management levels below, and to establish dates by which this quota is to be achieved in each case. If quotas are newly set in percent since FüPoG II entered into force, these may not correspond to fractions.

In accordance with Section 96, Paragraph 2 AktG, the Supervisory Board of a company which is both listed and subject to codetermination rules should be composed of at least 30% women and at least 30% men. As of December 31, 2021, the Supervisory Board of Covestro AG comprised six women and six men. The minimum legal requirement has thus been met.

At the end of the first target attainment period on June 30, 2017, the Supervisory Board decided on a target quota of at least 40% for women on the Board of Management of Covestro AG and an implementation period through June 30, 2022. The statutory requirement to set a minimum quota has therefore already been met. As of December 31, 2021, one woman and three men served on the Board of Management. Women therefore made up 25% of the Board of Management.

In addition, in fiscal 2017 the Board of Management set new targets for the first two management levels below the Board of Management. For the period until June 30, 2022, the goal of Covestro AG and the Covestro Group is to achieve a minimum of 30% women at both levels.

Proportion of women in the first two management levels below the Board of Management

	Covestro AG		Covestro Group	
	As of Dec. 31, 2021	Target by June 30, 2022	As of Dec. 31, 2021	Target by June 30, 2022
Proportion of women in management level 1 ¹	0%	30%	23%	30%
Proportion of women in management level 2 ²	28%	30%	23%	30%

¹ Direct reports to the Board of Management with management responsibilities.

² Direct reports to management level 1 with management responsibilities.

Supervisory Board

Duties and Activities of the Supervisory Board

The Supervisory Board advises and oversees the Board of Management. The Supervisory Board is directly involved in decisions on matters of fundamental importance to the company, regularly conferring with the Board of Management on the strategic alignment of Covestro AG and the Covestro Group, and on the implementation status of the business strategy. The Supervisory Board Chair coordinates its work and presides over the meetings. The Chair also represents the Supervisory Board outside the company and, in this capacity, is generally prepared to conduct Supervisory Board-specific discussions with investors. In accordance with the Articles of Incorporation, the Supervisory Board has issued rules of procedure governing its activity. These rules of procedure are applicable to the Supervisory Board as a whole as well as to individual Supervisory Board committees. They also include rules concerning the composition and work of the committees.

⊕ [Rules of Procedure for the Supervisory Board are available at:](#)

www.covestro.com/en/company/management/corporate-governance

The Supervisory Board members are obligated to work in the company's interests at all times and may not pursue any personal interests in making decisions for the company or take advantage of the company's business opportunities for themselves. They are required to immediately disclose any conflicts of interest to the Chair of the Supervisory Board, in particular including those resulting from executive functions or consulting activities at customers, suppliers, lenders, or other third parties. If the conflict of interest is material and of more than a temporary nature, the Supervisory Board member must step down. In its report to the Annual General Meeting, the Supervisory Board discloses any conflicts of interest and how they were handled.

In fiscal 2021, the Supervisory Board discussed at length the results of the regularly scheduled effectiveness and efficiency review performed as a self-evaluation based on a written questionnaire answered by Supervisory Board members. The main topics covered were the Supervisory Board meeting process; cooperation with the Board of Management; the provision of information to the Supervisory Board; the responsibilities, composition and work of the committees; and cooperation with the shareholder and employee representatives. In addition, an externally facilitated two-day Supervisory Board workshop covered the specific roles, duties, and challenges of the Supervisory Board and its committees. On the whole, the Supervisory Board's activity was evaluated and found to be effective and efficient by its members.

⊕ See "Meetings of the Full Supervisory Board and Member Attendance."

The Board of Management informs the Supervisory Board about business policy, corporate planning, and strategy in regular and open discussions. The Supervisory Board approves the corporate planning and financing framework. It also approves the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group, along with the Group management report, taking into account the auditor's reports and explanations. The Board of Management and Supervisory Board issue an annual compensation report in accordance with Section 162 of the German Stock Corporation Act. The Supervisory Board also regularly meets without the Board of Management in attendance. Employee representatives often hold discussions with members of the Board of Management prior to Supervisory Board meetings.

Composition of the Supervisory Board

The Supervisory Board has 12 members, half of whom are shareholder representatives and half employee representatives pursuant to the German Codetermination Act. The six employee representatives comprise four Covestro employees and two union representatives. The shareholder representatives are elected individually by the Annual General Meeting. On April 16, 2021, the Annual General Meeting elected Lise Kingo as successor to Ferdinando Falco Beccalli, who stepped down from the Supervisory Board.

The Supervisory Board discussed the requirements stipulated by Section 100, Paragraph 5 AktG. Based on its composition, the Supervisory Board as a whole has in-depth industry expertise in the chemical and polymer sector in which Covestro operates. This industry knowledge was acquired by the members either through their jobs or the requisite continuing education.

Supervisory Board members¹

Name/function	Membership on the Supervisory Board	Position	Memberships ²
Dr. Richard Pott (Chair)	Member of the Supervisory Board since August 2015	<ul style="list-style-type: none"> • Member of various supervisory boards • Chair of the Works Council of Covestro at the Uerdingen site • Chair of the General Works Council of Covestro • Vice Chair of Covestro-European Forum • Employee of Covestro Deutschland AG 	<ul style="list-style-type: none"> • Chair of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Freudenberg SE • Member of the Supervisory Board of SCHOTT AG
Petra Kronen (Vice Chair)	Member of the Supervisory Board since October 2015		<ul style="list-style-type: none"> • Vice Chair of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Bayer Beistandskasse VVaG
Ferdinando Falco Beccalli	Member of the Supervisory Board until April 2021	<ul style="list-style-type: none"> • Chair of the Board of Falco Capital AG 	<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG (until April 2021) • Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of MTU Aero Engines AG • Member of the Supervisory Board of OSRAM GmbH (until February 2021) • Member of the Supervisory Board of OSRAM Licht AG (until February 2021) • Member of the Supervisory Board of TÜV SÜD AG • Member of the Supervisory Board of Siemens Energy AG • Member of the Supervisory Board of Siemens Energy Management GmbH
Dr. Christine Bortenländer	Member of the Supervisory Board since October 2015	<ul style="list-style-type: none"> • Executive Member of the Board of Deutsches Aktieninstitut e.V. 	<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG (since April 2021) • Independent Board Director of Sanofi SA, France • Independent Board Director of Aker Horizons ASA, Norway (since April 2021)
Lise Kingo	Member of the Supervisory Board since April 2021	<ul style="list-style-type: none"> • Member of various supervisory boards, governing bodies and committees • Chair of the Works Council of Covestro at the Leverkusen site • Chair of the Group Works Council of Covestro • Vice Chair of the General Works Council of Covestro • Employee of Covestro Deutschland AG 	<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG • Independent Board Director of Aker Horizons ASA, Norway (since April 2021)
Irena Küstner	Member of the Supervisory Board since October 2015	<ul style="list-style-type: none"> • Chair of the Managerial Employees' Committee of Covestro Deutschland AG • Manager of Covestro Deutschland AG 	<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG
Dr. Ulrich Liman	Member of the Supervisory Board since January 2018		<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Continental AG • Member of the Supervisory Board of ProSiebenSat.1 Media SE
Prof. Dr. Rolf Nonnenmacher	Member of the Supervisory Board since August 2015	<ul style="list-style-type: none"> • Member of various supervisory boards • Member of the Executive Committee of the German Mining, Chemical and Energy Industrial Union (IG BCE) (until October 2021) • Secretary for the IG BCE union (since November 2021) • Chair of the Board of August-Schmidt-Stiftung (since November 2021) 	<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of Bayer AG
Petra Reinbold-Knape	Member of the Supervisory Board since January 2020		

¹ As of December 31, 2021.

² Memberships on other supervisory boards and memberships in comparable supervising bodies of German or foreign corporations.

Supervisory Board members¹

Name/function	Membership on the Supervisory Board	Position	Memberships ²
Regine Stachelhaus	Member of the Supervisory Board since October 2015	<ul style="list-style-type: none"> • Member of various supervisory boards • Chair of the Works Council of Covestro at the Brunsbüttel site 	<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG • Member of the Supervisory Board of CECONOMY AG • Member of the Supervisory Board of Leoni AG • Member of the Supervisory Board of SPIE Deutschland und Zentraleuropa GmbH • Director of SPIE SA, France
Marc Stothfang	Member of the Supervisory Board since February 2017	<ul style="list-style-type: none"> • Chair of Covestro-European Forum • Employee of Covestro Deutschland AG 	<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG • Non-Executive Director (Chair) of Johnson Matthey plc, United Kingdom • Non-Executive Director of Akzo Nobel N.V., Netherlands
Patrick Thomas	Member of the Supervisory Board since July 2020	<ul style="list-style-type: none"> • Member of various supervisory boards • District Manager of the German Mining, Chemical and Energy Industrial Union (IG BCE) – district Leverkusen • District Manager of the German Mining, Chemical and Energy Industrial Union (IG BCE) – district Dortmund-Hagen 	<ul style="list-style-type: none"> • Member of the Supervisory Board of Covestro Deutschland AG
Frank Werth	Member of the Supervisory Board since September 2016	(since November 2021)	

¹ As of December 31, 2021.² Memberships on other supervisory boards and memberships in comparable supervising bodies of German or foreign corporations.**Committees of the Supervisory Board**

The Supervisory Board currently has the following committees:

Presidial Committee: The Presidial Committee comprises the Supervisory Board Chair and Vice Chair along with an additional shareholder representative and an additional employee representative. The Presidial Committee serves primarily as the mediation committee pursuant to the German Codetermination Act. It has the task of submitting proposals to the Supervisory Board on the appointment of members of the Board of Management if the necessary two-thirds majority is not achieved in the first vote at a plenary meeting. Certain decision-making powers in connection with capital measures, including the power to amend the Articles of Incorporation, have also been delegated to this committee.

Members: Dr. Richard Pott (Chair), Petra Kronen, Petra Reinbold-Knape, and Regine Stachelhaus

Audit Committee: The Audit Committee has three shareholder and three employee representatives. The current legal requirements for the expertise of Audit Committee members are met in that Prof. Dr. Rolf Nonnenmacher has the requisite expertise in the areas of accounting and auditing. The requirement that the Supervisory Board and Audit Committee should have a second member with financial expertise is subject to a legal transition period. Prof. Dr. Rolf Nonnenmacher meets the requirements of the GCGC for the qualifications and independence of the Chair of the Audit Committee.

The Audit Committee's main responsibilities include auditing the accounts; monitoring the accounting and financial reporting process; monitoring the effectiveness of the internal control system, the risk management system, and the internal audit system; financial statement audits; and compliance. The accounting comprises in particular the consolidated financial statements and the Group Management Report (including sustainability reporting). The Audit Committee is responsible for examining the financial statements, consolidated financial statements and management reports, and for discussing the quarterly and half-yearly reporting with the Board of Management. On the basis of the auditor's report, the Audit Committee develops proposals for resolutions by the Supervisory Board relating to the confirmation of the financial statements, the approval of the consolidated financial statements, and the use of the distributable profit.

The Audit Committee is also responsible for the company's relationship with the external auditor. It submits a proposal to the full Supervisory Board concerning the auditor's appointment and is authorized to award the audit contract to the audit firm appointed on behalf of the Supervisory Board and to agree the auditor's remuneration. It also suggests areas of focus for the audit and monitors the quality of the audit as well as the independence and qualifications of the auditor. To this end, the Audit Committee has obtained a statement of independence from the auditor, who is required to immediately inform the Audit Committee about all possible grounds for exclusion or lack of impartiality arising during the audit or review, and all findings and incidents material to the Supervisory Board's responsibilities, particularly suspected accounting irregularities. Moreover, the Audit Committee has requested that the auditor inform the Committee and make a note in the audit report if facts are identified during the financial statement audit process that indicate an error in the Declaration of Conformity with the German Corporate Governance Code submitted by the Board of Management and Supervisory Board.

Members: Prof. Dr. Rolf Nonnenmacher (Chair), Dr. Christine Bortenländer, Petra Kronen, Irena Küstner, Petra Reinbold-Knape, and Patrick Thomas

Human Resources Committee: On the Human Resources Committee, too, there is parity of representation between shareholders and employees. It consists of the Supervisory Board Chair and three other members. The Committee prepares the personnel decisions of the full Supervisory Board, which resolves on appointments or dismissals of members of the Board of Management. The Human Resources Committee resolves on behalf of the Supervisory Board on the service contracts of the members of the Board of Management. However, it is the responsibility of the full Supervisory Board, based on the recommendations submitted by the Human Resources Committee, to resolve on the total compensation of the individual members of the Board of Management and the respective compensation components, as well as to regularly review the compensation system. The Human Resources Committee also discusses the long-term succession planning for the Board of Management.

Members: Dr. Richard Pott (Chair), Petra Kronen, Dr. Ulrich Liman, and Regine Stachelhaus

Nomination Committee: The Nomination Committee carries out preparatory work when an election of shareholder representatives to the Supervisory Board is to be held. It suggests suitable candidates for the Supervisory Board to propose to the Annual General Meeting for election. The committee comprises the Supervisory Board Chair, the other shareholder representative on the Presidial Committee, and another elected shareholder representative.

Members: Dr. Richard Pott (Chair), Ferdinando Falco Beccalli (until April 2021), Regine Stachelhaus, and Patrick Thomas (since June 2021)

Sustainability Committee: The Sustainability Committee was formed in August 2021. It consists of four Supervisory Board members with parity of representation between shareholders and employees. The Chair of the Sustainability Committee is elected by the Supervisory Board from between the two shareholder representatives elected to the Committee. The committee advises the Supervisory Board, its committees, and the Board of Management, as well as working on sustainable corporate governance and the company's environmental, social, and governance (ESG) activities in particular. It supports, monitors, and issues recommendations on the Board of Management's ESG strategies, targets, and initiatives, including the environmental, social, societal, ethical, and circular economy aspects of Covestro's business along the entire value chain.

The Sustainability Committee additionally helps the Audit Committee examine sustainability-related statements in the context of the audit of the (Group's) nonfinancial statement. Furthermore, it advises the Human Resources Committee on setting ESG targets for Board of Management compensation.

Members: Lise Kingo (Chair), Dr. Ulrich Liman, Marc Stothfang, and Patrick Thomas

Details on the Supervisory Board's activities and its committees are provided by the Supervisory Board in its Report.

⊕ See "Report of the Supervisory Board."

Objectives for the Composition of the Supervisory Board and Diversity Concept

The composition of the Supervisory Board should be such that its members jointly possess the necessary expertise, skills, and professional experience to properly perform their duties, and are sufficiently independent. The Supervisory Board assesses the independence of its members according to the recommendation contained in the GCGC.

Covestro AG's Supervisory Board has agreed the following specific goals for its composition that align with the recommendations of the GCGC and at the same time provide for diversity in terms of age, independence, and professional experience:

- The Supervisory Board has resolved that 75% of its members and more than half of the shareholder representatives on the Supervisory Board are to be independent.
- Absent of special circumstances, a Supervisory Board member shall not serve more than three full terms of office and shall not hold office beyond the end of the next Annual General Meeting following his or her 72nd birthday.
- The Supervisory Board shall not include more than two former members of the company's Board of Management. Supervisory Board members may not perform executive functions or consulting activities for major competitors of the company or any Group company, and they must not be exposed to other significant conflicts of interest.
- One member of the Supervisory Board shall have expertise in the area of accounting and at least one other member shall have expertise in the area of auditing.
- At least two Supervisory Board members must have function-specific knowledge in each of the following areas:
 - Strategy, mergers and acquisitions, capital markets
 - Marketing, sales, supply chain
 - Research and development, innovation
 - Sustainability, circular economy and new technologies
 - Digitalization
 - Human resources, change management
 - Corporate governance, compliance
- The Supervisory Board must have at least two members with experience in industries, sales markets, and/or divisions of importance to Covestro, e.g., (polymer) chemistry, production, and technology.
- Taking into account the specific situation and international operations of Covestro and its affiliated companies, the Supervisory Board strives to ensure sufficient diversity among its members. Moreover, at least three members should have managerial experience in an international enterprise and/or experience serving on other supervisory boards or supervisory bodies.

The objectives described refer to the Supervisory Board as a whole unless resolved otherwise. However, since the Supervisory Board can only nominate candidates for election as shareholder representatives, it can only consider the objectives in making these nominations.

Implementation Status of the Objectives

The Supervisory Board has several members with international business experience and an international background. The objectives pertaining to age limits, length of service, and independence are being met. In the opinion of the Supervisory Board, the shareholder representatives Dr. Richard Pott, Dr. Christine Bortenländer, Lise Kingo, Prof. Dr. Rolf Nonnenmacher, Regine Stachelhaus, and Patrick Thomas are independent pursuant to the GCGC. The requirements for function-specific knowledge are generally being met, but the specific goal of having at least two shareholder representatives per field of expertise is not fulfilled in all areas.

- ⊕ Additional information about Covestro AG's current Supervisory Board members is available at: www.covestro.com/en/company/management/supervisory-board

Shareholdings and Reportable Securities Transactions by Members of the Board of Management or Supervisory Board

In the year under review, members of the Board of Management and Supervisory Board and their close relatives are legally required to disclose all transactions involving the purchase or sale of Covestro AG securities where such transactions total €20,000 or more in a calendar year no later than three business days after the date of the transaction. Covestro publishes the details of reportable transactions in suitable media in the European Union and on its website without delay, but no later than two business days after receipt of the disclosure, and also provides this information to the company register for archiving.

- ⊕ Additional information on securities transactions by members of the Board of Management or Supervisory Board is available at: www.covestro.com/en/investors/share-details/disclosure-of-securities-transactions

Systematic Risk Management

Covestro's enterprise risk management system ensures early identification of any financial or nonfinancial risks. We attempt to avoid or mitigate identified risks, or to transfer them to third parties (such as insurers) to the extent possible and economically acceptable.

The internal control system (ICS) for accounting and financial reporting enables the timely monitoring of risks to prevent or correct potential errors in accounting for business transactions. It thus ensures the availability of reliable data on the company's financial situation.

However, the control and risk management system cannot provide absolute protection against losses arising from business risks or fraudulent actions.

- ☒ See "Opportunities and Risks Report."

Detailed Reporting

We provide regular and timely information on the Covestro Group's position and significant changes in business activities to shareholders, financial analysts, shareholders' associations, the media, and the general public to maximize transparency. Four times a year we report to our shareholders about the company's business performance, its net assets, financial position, and results of operations, and the risks it faces. Covestro's reporting thus complies with the provisions of the GCGC.

In line with statutory requirements, the members of the company's Board of Management provide assurance that, to the best of their knowledge, the financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, and the Combined Management Report provide a true and fair view.

The financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, and the Combined Management Report are published within 90 days following the end of each fiscal year. During the fiscal year, Covestro additionally informs shareholders and other interested parties about developments by means of the half-year financial report and interim reports for the first and third quarters. The half-year financial report is voluntarily subjected to a review by the auditor appointed by the Annual General Meeting.

Covestro also provides information about the current corporate strategy, important growth areas, the financial position and results of operations, and financial targets at regular press conferences and analysts' meetings. The company uses the internet as a platform for the timely disclosure of information, with major publications, such as annual reports, half-year financial reports, and quarterly statements, and the dates of events, such as Annual General Meetings, posted on the Group's website.

In line with the principle of fair disclosure, Covestro treats all shareholders and other key stakeholders equally as regards the communication of valuation-relevant information. All significant new facts are disclosed immediately to the general public. In addition to our regular reporting, we issue ad-hoc statements on developments that otherwise might not become publicly known but have the potential to materially affect the price of Covestro shares.

Shareholders and Annual General Meeting

Covestro's shareholders exercise their rights within the scope provided for by the law and the Articles of Incorporation at the Annual General Meeting and there exercise their right to vote. Each share of Covestro AG confers the same rights and carries one vote at the Annual General Meeting. Shareholders can exercise their voting rights by way of a proxy, e.g., a credit institution, a shareholders' association, or another third party. Shareholders can issue and revoke proxies in respect of the company electronically using the company's online proxy system. The company also makes it easier for its shareholders to exercise their personal rights by appointing voting proxies to cast their votes, subject to their instructions. They are also available during the Annual General Meeting. The Board of Management can enable shareholders to take part in the Annual General Meeting without in-person attendance and without a proxy, and exercise all of their rights or individual rights in whole or in part through electronic means of communication. All of the company's shareholders and interested members of the public may watch the opening of the Annual General Meeting by the meeting chair and follow the report of the Board of Management live online. The Annual General Meeting on April 16, 2021, was held virtually due to the coronavirus pandemic. All documents and information on the Annual General Meeting such as the invitation, including the agenda, and the annual report are available on Covestro's website as well.

- ⊕ The live feed of the opening of the Annual General Meeting and the report of the Supervisory Board are available at:
www.covestro.com/en/investors/financial-calendar/annual-general-meeting

Takeover-Relevant Information

Disclosures Pursuant to Section 289a, Paragraph 1 and Section 315a, Paragraph 1 of the German Commercial Code (HGB)

Investments in Capital Interest Held, Exceeding 10% of Total Voting Rights

We have received no notification nor are we otherwise aware of direct or indirect investments in capital interest held, equal to or exceeding 10% of the voting rights.

- + Additional information on Covestro's ownership structure is available at:
www.covestro.com/en/investors/stock-details/shareholder-structure

Board of Management

Appointment and Dismissal of Members of the Board of Management, Changes to the Articles of Incorporation

The appointment and dismissal of members of the Board of Management are subject to the provisions of Sections 84 and 85 of the German Stock Corporation Act, Section 31 of the German Codetermination Act, and Article 6 of the Articles of Incorporation of Covestro AG. Pursuant to Section 84, Paragraph 1 of the German Stock Corporation Act, the members of the Board of Management are appointed and dismissed by the Supervisory Board. The term of service for a Board of Management member appointed for the first time is generally three years. Since Covestro AG falls within the scope of the German Codetermination Act, the appointment or dismissal of members of the Board of Management requires a majority of two-thirds of the votes of the members of the Supervisory Board on the first ballot pursuant to Section 31, Paragraph 2 of that act. If no such majority is achieved, the appointment is resolved pursuant to Section 31, Paragraph 3 of the Codetermination Act on a second ballot by a simple majority of the votes of the members of the Supervisory Board. If the required majority still is not achieved, a third ballot is held. Here again, a simple majority of the votes of the members suffices, but in this ballot, the Supervisory Board Chair has two votes pursuant to Section 31, Paragraph 4 of the Codetermination Act. Under Article 6, Paragraph 1 of the Articles of Incorporation, the number of members of the Board of Management is determined by the Supervisory Board but must be at least two. The Supervisory Board may appoint one member of the Board of Management to be its Chair and one member to be the Vice Chair pursuant to Section 84, Paragraph 2 of the German Stock Corporation Act and Article 6, Paragraph 1 of the Articles of Incorporation.

Any amendments to the Articles of Incorporation are made pursuant to Section 179 of the German Stock Corporation Act and Articles 10 and 17 of the Articles of Incorporation. Under Section 179, Paragraph 1 of the German Stock Corporation Act, amendments to the Articles of Incorporation require a resolution of the Annual General Meeting. Pursuant to Section 179, Paragraph 2 of the German Stock Corporation Act, this resolution must be passed by a majority of three-quarters of the voting capital represented at the meeting, unless the Articles of Incorporation provide for a different majority. However, where an amendment relates to a change in the object of the company, the Articles of Incorporation may only specify a larger majority. Article 17, Paragraph 2 of the Articles of Incorporation utilizes the scope for deviation pursuant to Section 179, Paragraph 2 of the German Stock Corporation Act and provides that resolutions may be passed by a simple majority of the votes cast or, where a capital majority is required, by a simple majority of the capital represented. Pursuant to Article 10, Paragraph 9 of the Articles of Incorporation, the Supervisory Board may resolve on amendments to the Articles of Incorporation that relate solely to their wording.

Capital

Composition of the Capital Stock

The capital stock of Covestro AG amounted to €193,200,000 as of December 31, 2021, and is composed of 193,200,000 no-par value bearer shares. Each share confers equal rights and one vote at the Annual General Meeting (AGM).

Board of Management's Authorizations to Issue Shares

The AGM passed a resolution on April 16, 2021, authorizing the Board of Management to increase the capital stock by up to € 57,960,000 in the period up to April 15, 2026, with the approval of the Supervisory Board, by issuing new, no-par value bearer shares against cash contributions and/or contributions in kind (Authorized Capital 2021).

On July 30, 2020, the AGM additionally authorized the Board of Management to issue bonds with conversion or exchange rights or warrants, or with conversion obligations, or a combination of these instruments on up to 18,300,000 no-par value bearer shares of Covestro AG. Based on this authorization, convertible/warrant bonds can be issued up to a total nominal value of €2,000,000,000 by the company or a Group company in the period up to July 29, 2025. The 2020 AGM also resolved to conditionally increase the capital stock by up to €18,300,000 by issuing up to 18,300,000 no-par value bearer shares to grant shares to the holders or creditors of such convertible/warrant bonds (Conditional Capital 2020). New shares from Authorized Capital 2021 and the aforementioned bonds can be issued against cash contributions or contributions in kind. They must generally be offered to the shareholders for subscription. The Board of Management is authorized, with the approval of the Supervisory Board, to disapply shareholders' subscription rights when instruments are issued against contributions in kind. When issuing instruments against cash contributions, subscription rights can be disapplied with the approval of the Supervisory Board in the following cases:

- Subscription rights must be disapplied where the subscription ratio gives rise to fractional amounts.
- Subscription rights are disapplied to provide compensation for dilution in connection with convertible/warrant bonds already issued.
- The issue price of the new shares or bonds will not be significantly lower than their stock market price or the theoretical fair value of the bonds calculated using recognized financial valuation methods (disapplication of subscription rights limited to 10% of the capital stock under or in accordance with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act).

Additional restrictions, which are described in greater detail in the respective authorization, may apply to the new shares issued or to be issued against cash contributions or contributions in kind while disapplying the subscription rights of shareholders. In addition, the Board of Management declared in a Corporate Commitment ending no later than April 15, 2026, that it will not increase the company's capital stock from Authorized Capital 2021 and Conditional Capital 2020 by a total of more than 10% of the amount of capital stock at the time of the AGM on April 16, 2021, insofar as capital increases are implemented from Authorized Capital 2021 against cash contributions or contributions in kind while disapplying subscription rights, or for the purpose of servicing convertible/warrant bonds issued under the authorization resolved on July 30, 2020, while disapplying subscription rights.

Acquisition and Use of Treasury Shares

By a resolution adopted by the Annual General Meeting on April 12, 2019, the Board of Management is authorized to acquire and use treasury shares, also using derivatives. The individual details of the resolution are as follows:

1. Authorization Granted to the Board of Management to Acquire and Use Treasury Shares

- 1.1 The Board of Management is authorized until April 11, 2024, to acquire treasury shares with a proportionate interest in the capital stock totaling up to 10% of the company's capital stock existing at the date of the resolution, or if this amount is lower, at the time the authorization is exercised, subject to the proviso that the shares acquired as a result of this authorization, together with other shares of the company that the company has already acquired and still holds, or which are attributable to it under Sections 71a et seqq. of the German Stock Corporation Act, at no time exceed 10% of the capital stock of the company. The provisions in Section 71, Paragraph 2, Sentences 2 and 3 of the German Stock Corporation Act must be complied with.

The acquisition may only take place via the stock exchange or by means of a public purchase offer and must satisfy the principle of the equal treatment of shareholders (Section 53a of the German Stock Corporation Act). If the acquisition takes place via the stock exchange, the purchase price paid by the company (excluding transaction costs) may neither exceed, nor be lower than, the company's share price as determined by the opening auction in Xetra trading (or a comparable successor system) on the Frankfurt Stock Exchange on the trading day, by more than 10%. If the acquisition takes place by means of a public purchase offer, the offer price paid by the company (excluding transaction costs) may neither exceed, nor be lower than, the company's share price as determined by the closing auction in Xetra trading (or a comparable successor system) on the Frankfurt Stock Exchange on the last trading day before the publication of the purchase offer, by more than 10%. If the total number of the shares tendered in response to a public purchase offer exceeds the offer volume, purchases may be made in proportion to the number

of shares tendered (tender ratios); in addition, preferential acceptance of small numbers of shares (up to 50 shares per shareholder), as well as rounding in accordance with commercial principles to avoid notional share fractions, may be provided for. Any further shareholder tender rights are disapproved to this extent.

- 1.2** The authorization may be exercised in full, or in a number of partial amounts split across several acquisition dates, until the maximum purchase volume has been reached. The acquisition may also be carried out by Group companies that are dependent on the company within the meaning of Section 17 of the German Stock Corporation Act, or by third parties on behalf of the company or such Group companies. The authorization may, subject to compliance with the statutory requirements, be exercised for any purpose permissible in law, especially in pursuit of one or more of the purposes listed in 1.3, 1.4, 1.5, and 1.6. Trading in treasury shares is not permitted.

If the treasury shares acquired are used for one or more of the purposes described under 1.3 or 1.4, the shareholders' subscription rights are disapproved. The Board of Management is authorized to disapply subscription rights if the treasury shares acquired are used for the purpose specified in 1.6. Shareholders likewise do not have any subscription rights if the treasury shares acquired are sold via the stock exchange. In the event that the treasury shares acquired are sold by means of a public offer to shareholders, and this public offer complies with the principle of equal treatment, the Board of Management is authorized to disapply the shareholders' subscription rights for fractions.

- 1.3** The Board of Management is authorized to also sell the treasury shares acquired on the basis of the above or an earlier authorization in a manner other than via the stock exchange or by way of an offer to all shareholders, provided that the sale takes place against cash payment and at a price which, at the date of the sale, is not significantly lower than the market price for the same class of shares in the company. This authorization governing the use of shares is restricted to shares whose proportionate interest in the capital stock may not in total exceed 10% of the capital stock either at the date this authorization becomes effective or, if this amount is lower, at the date the present authorization is exercised. The upper limit of 10% of the capital stock is reduced by the proportionate interest in the capital stock that is attributable to those shares which are issued or sold during the term of this authorization while disapproving subscription rights under or in accordance with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act. The upper limit of 10% of the capital stock is further reduced by the proportionate interest in the capital stock that is attributable to those shares which are to be issued to service bonds with warrants or conversion rights or obligations, provided that these bonds are issued during the term of this authorization while disapproving subscription rights in application of Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act, with the necessary modifications.
- 1.4** The Board of Management is authorized to transfer the treasury shares acquired under the above or an earlier authorization to third parties, provided this is done for the purpose of acquiring companies, parts of companies, equity interests in companies, or other assets, or to effect business combinations.
- 1.5** The Board of Management is authorized to retire the treasury shares acquired under the above or an earlier authorization without a further resolution by the Annual General Meeting. The shares may also be retired without reducing the capital by adjusting the proportionate interest of the remaining no-par value shares in the capital stock of the company. In this case, the Board of Management is authorized to amend the number of no-par value shares in the Articles of Incorporation.
- 1.6** The Board of Management is authorized to use the treasury shares acquired under the above or an earlier authorization to pay a scrip dividend.
- 1.7** The Board of Management may only use the authorizations in 1.3, 1.4, and 1.6 with the approval of the Supervisory Board. Moreover, the Supervisory Board may determine that the measures taken by the Board of Management on the basis of this resolution by the Annual General Meeting may only be implemented with its approval.
- 1.8** Overall, the above authorizations governing the use of shares may be utilized on one or several occasions, individually or together, in relation to partial volumes of the treasury shares, or all treasury shares held in total.

2. Authorization for Acquisition Using Derivatives

- 2.1 Treasury shares being acquired as part of the authorization under 1.1 may also be acquired using put or call options. In this case, the option transactions must be entered into with a credit institution, or a company which operates in accordance with Section 53, Paragraph 1, Sentence 1 or Section 53b, Paragraph 1, Sentence 1 or Paragraph 7 of the German Banking Act, that is independent of the company (financial institution), provided that this financial institution, when the option is exercised, only delivers shares which were previously acquired via the stock exchange at a market-driven price in compliance with the principle of equal treatment.
- 2.2 The acquisition of shares using put or call options is limited to a maximum of 5% of the capital stock in existence either at the date of the resolution by the Annual General Meeting or, if this amount is lower, at the date the authorization is exercised.
- 2.3 The option premium paid by the company in the case of call options may not be materially higher and the option premium received in the case of put options may not be materially lower than the theoretical fair value of the options concerned calculated using accepted financial valuation methods. The exercise price agreed in the option transaction (in each case not including transaction costs, but taking into account the option premium received or paid) may not be more than 10% higher or lower than the price of the company's shares as determined by the opening auction in Xetra trading (or a comparable successor system) on the Frankfurt Stock Exchange on the trading day on which the option transaction was entered into.
- 2.4 The term of the individual derivatives may not, in each case, exceed 18 months; it must end at the latest on April 11, 2024, and must be selected so that the shares are not acquired using derivatives after April 11, 2024.
- 2.5 The provisions under 1. also apply to the use of company shares acquired on the basis of the authorization under 2. using derivatives.

Material Conditional Agreements

Some debt financing instruments contain clauses that refer to cases of change of control. Such clauses grant the respective investor additional rights of termination, which may be restricted by additional conditions – such as a rating being downgraded. Our syndicated credit line and our bonds, for example, are governed by change-of-control agreements.

For the case of a takeover offer for Covestro AG, agreements are in place which stipulate that financial benefits in the event of early termination of the service contract of a Board of Management member due to a change of control are subject to the severance cap set out in the German Corporate Governance Code as amended on December 16, 2019, and may not exceed compensation for the remaining term of the contract.

Compliance

Compliance Management System

Our corporate conduct is characterized by a sense of responsibility as well as ethical principles. Compliance with legal and regulatory requirements is integral to our operations. It is only in this manner that we can sustainably increase the company's enterprise value and safeguard our reputation.

Culture and Targets

In its Corporate Compliance Policy, Covestro has specified a Group-wide code of conduct that mandates fundamental principles and rules for all employees. This code of conduct details our commitment to fair competition, integrity in business dealings, the principles of sustainability and product stewardship, data protection, upholding of foreign trade and insider dealing laws, the separation of business and private interests, proper record-keeping and transparent financial reporting, as well as to providing fair, respectful, and nondiscriminatory working conditions. These requirements apply within the company as well as to all interactions with external partners and the general public. Our code of conduct provides a framework for all decisions by the company and our employees. The Corporate Compliance Policy is available on our intranet and on our website, and is part of an information packet distributed to new employees when they are hired.

 Additional information is available at: www.covestro.com/en/company/profile/procurement/sustainability-in-procurement/supplier-code-of-conduct

Covestro is aware that employees will likely embrace and exhibit integrity if managers are excellent role models. The Board of Management states very clearly in its Corporate Compliance Policy for all staff that, above and beyond any legal requirements, Covestro elects not to conduct any business activities that would violate our rules and that management staff is prohibited from instructing employees otherwise. In this way, management continuously fosters our compliance culture by, for example, regularly drawing employees' attention to compliance topics and their significance to the company. At Covestro town hall meetings, for example, Board of Management members regularly present recent compliance cases to employees and underscore the importance of complying with statutory requirements and internal regulations.

 See "Corporate Commitments."

We want to utilize our compliance management system in order to:

- Foster and reinforce conduct per compliance requirements,
- Minimize or even eliminate compliance violations,
- Identify risks for potential violations,
- Implement preventive measures, and
- Uncover, halt, and proactively eliminate a repeat occurrence of any compliance violations committed by individuals acting without authorization and in breach of clear rules.

We have taken steps to meet our targets, including implementing an internal control system to ensure compliance rules are followed. The insights gained from our annual evaluation of effectiveness are leveraged in our efforts to continually improve our compliance management system.

 See "Internal Control System to Ensure Compliance."

Compliance Organization

The Chief Compliance Officer is in charge of all compliance activities at Covestro, and in this function reports directly to the Board of Management. The Law, Intellectual Property & Compliance corporate function is the single point of contact that coordinates Group-wide compliance activities. Chaired by the Chief Financial Officer (CFO) of Covestro, the Compliance Committee is the Group's top-level decision-making body on these issues. The Committee's responsibilities include the following: exercising a Group-wide compliance governance function, initiating and approving compliance-related regulations, and approving the annual training plan. In the reporting period, the Compliance Committee met a total of four times.

A local Compliance Officer has also been appointed for each country in which Covestro has employees. This person serves as a local point of contact for employees on all questions regarding legally and ethically correct conduct in business situations. The country organizations also have local compliance committees.

Communications and Compliance

Covestro systematically conducts training courses on compliance. Once focus areas have been specified, target groups are defined for each content category and the employees are selected as appropriate.

Covestro expressly encourages its employees to openly address any doubts about proper conduct in business situations and to solicit advice. We inform all employees whom they can contact if they have any doubts or questions. Covestro has also set up a whistleblowing tool. Employees and third parties can report potential compliance violations through a hotline accessible worldwide or use an online tool that also permits anonymous reports. In addition, employees can also report any compliance incidents to their supervisors or to the Compliance organization.

 Additional information is available at: www.covestro.com/en/company/management/compliance

An internal policy sets out the principles for handling compliance incidents at Covestro. All suspected compliance incidents are recorded in a central database. Confirmed violations are evaluated, and organizational, disciplinary, or legal measures are taken if necessary.

Compliance incidents are regularly reported to the Supervisory Board, the Board of Management, and the business entities' management teams. Moreover, a current overview of incidents, including additional information on various aspects and developments related to this topic, is published in a monthly Compliance Telegram on the intranet. This ensures a high degree of transparency for all employees.

On a quarterly basis, all companies document risks arising from pending or current legal or administrative proceedings. Relevant cases are reported on a regular basis to the Board of Management and to the Audit Committee of the Supervisory Board. The material legal risks are disclosed in the Notes to the Consolidated Financial Statements.

 See note 26 "Legal Risks" in the Notes to the Consolidated Financial Statements.

[Supplementary information >](#)

Tax Compliance

Principles and Targets

Covestro takes seriously its responsibility to pay the statutory tax liability in accordance with the rules set by each government as well as to meet all registration, documentation, disclosure, and licensing requirements in all the applicable countries and/or tax jurisdictions. Ensuring that tax payments are made in the appropriate amount is a core element of Covestro's responsibility to society, because this is a major source of revenue for governments that is used to carry out economic and social policies.

Our tax principles are as follows:

- Zero tolerance for violations, especially tax fraud/evasion;
- Tax payments in line with the value created in the relevant countries/territories;
- Cooperation with tax authorities.

These principles are also published online.

 [Additional information is available at: \[www.covestro.com/en/sustainability/service-downloads/policies-commitments\]\(http://www.covestro.com/en/sustainability/service-downloads/policies-commitments\)](#)

Our principles are at the heart of a tax policy applicable to the entire Group, which was reviewed and approved by the corporate Taxes function and the Chief Financial Officer (CFO). The tax policy also includes our tax strategy in alignment with our Group strategy and our C³ corporate values. The tax strategy is discussed and amended as necessary in regular exchanges with the CFO.

 See "Strategy."

In addition, we are interested in keeping abreast of ongoing developments in tax law and therefore participate in political discussions in trade association committees. All of our activities rest on compliance with our ethical principles. The aim of our participation in trade associations is fair, transparent, and administratively streamlined evolution of tax law.

Tax Compliance Organization

Responsibility for implementing and continually improving the appropriate tax processes lies with the corporate Taxes function, which reports to the CFO. Local tax experts in Covestro's subsidiaries implement tax processes or support this effort. To the extent that third-party professionals are tasked with tax-related responsibilities in certain countries, they agree to adhere to our principles and compliance rules.

Covestro expressly encourages employees to openly discuss any concerns about proper conduct by the company regarding taxes with their supervisors or local tax departments, and to obtain assistance or advice. Our whistleblower tool is also available to employees and third parties.

 See "Communications and Compliance."

A standardized process is used to report tax risks worldwide to the corporate Taxes function once a year. Tax risks are monitored on an ongoing basis in cooperation with the Group companies and, if necessary, the risk reports are amended. Financial reporting comprises tax risks, which are integrated into the internal control system for the (Group) accounting and financial reporting process and the risk early warning system.

 See "Internal Control System for (Group) Accounting and Financial Reporting" and "Risk Early Warning System."

< [Supplementary information](#)

Compensation Report

The Compensation Report outlines the principles for determining the compensation for the members of the Board of Management and the Supervisory Board of Covestro AG and explains the compensation of the individual members. The Report was prepared by the Board of Management and the Supervisory Board in accordance with the requirements of section 162 of the German Stock Corporation Act (AktG) and conforms to the recommendations of the German Corporate Governance Code (GCGC) as amended on December 16, 2019. Relevant information is published on Covestro's website.

- ⊕ Additional information on the details of the compensation system, the report on the audit of the compensation report, and the resolution of the Annual General Meeting approving the compensation system is available at:
www.covestro.com/en/company/management/corporate-governance

In December 2020, Covestro AG's Supervisory Board resolved to revise the compensation system for Board of Management members approved by the Annual General Meeting (AGM) on May 3, 2016, effective January 1, 2021. The total target compensation remained essentially the same. The changes primarily entailed adding a sustainability component to long-term variable compensation, introducing rules for withholding or recovering variable compensation components (malus and clawback), and defining maximum compensation. These modifications were made pursuant to the provisions of the law and the German Corporate Governance Code (GCGC) as amended on December 16, 2019. The compensation system for the Board of Management members, which was revised as described, was approved by the AGM on April 16, 2021, with a majority of 91.66%; it is available on the company's website.

- ⊕ Additional information is available at:
www.covestro.com/-/media/covestro/corporate/company/management/corporate-governance/documents/en/covestro-compensation-system-board-of-management.pdf

Compensation of the Board of Management

The following section reports the compensation of the Board of Management of Covestro AG for fiscal 2021. The members of the Board of Management of Covestro AG are the same as the members of the Board of Management of Covestro Deutschland AG, which is a wholly owned subsidiary of Covestro AG. Compensation is not paid for the members' work on the Board of Management of Covestro Deutschland AG.

Guiding Principles for Compensation

The compensation structure is standardized for all Covestro employees in line with our "We are 1" corporate culture:

- The variable compensation of the Board of Management and all participating employees is based on a uniform system and identical criteria.
- Differences exist only in the target percentages related to fixed compensation.

The variable compensation is based on Covestro's corporate performance, which is measured based on financial and environmental targets and share performance:

- The system and criteria for [short-term variable compensation](#) are closely aligned to Covestro's annual performance.
- The system and the criteria are agreed upon and binding for a three-year period. The Covestro Profit Sharing Plan (Covestro PSP) is a bonus system based on the company's average expected performance. The Covestro PSP is designed in such a way that an average payout level of 100% can be achieved over a period of up to 10 years. From 2022, a sustainability component will be agreed in addition to the financial performance criteria.
- In very good years, high payout percentages are achieved (such as 239.5% for fiscal 2021), while in less successful years they are significantly lower (such as 10.8% for fiscal 2020).
- The Prisma stock-based compensation program for [long-term variable compensation](#) is based on the performance of Covestro stock, including the dividend, compared with the STOXX Europe 600 Chemicals* index. Since fiscal 2021, Prisma has also been amended to include a sustainability component.

The determination of variable compensation is simple, transparent, and based on objective criteria:

- The system with the underlying curves is defined and documented in the Annual Report.
- All criteria have been audited and are also documented in the Annual Report.

Compensation system and structure at a glance

	In % of target compensation	Target compensation in thousand	Modifiers/target compensation	Further components
30% fixed	30% Fixed annual compensation	CEO: 1,219 OBM: 614 – 746	Fixed	Fringe benefits
70% variable	30% Covestro PSP	CEO: 1,219 OBM: 614 – 746		Malus (100%) Clawback (up to 3 years)
	40% Prisma	CEO: 1,585 OBM: 798 – 970		
	100% ²	CEO: 4,023 OBM: 2,026 – 2,462	Severance cap: 2 times annual compensation	
	Pension benefits ³	CEO: 679 OBM: 182 – 280	Defined contribution plans or defined contribution (company pension): 9 – 17% of target compensation	Share ownership guidelines: 100% of fixed annual compensation within 4 years (CEO & OBM)
	Total compensation ¹	CEO: 4,702 OBM: 2,208 – 2,742	Max. compensation limit (incl. fringe benefits and pension): €9,000 thousand (CEO); €5,500 thousand (OBM)	

¹ Chief Executive Officer (CEO), ordinary Board of Management member (OBM).

² Excluding fringe benefits.

³ Expected pension service cost (IFRSs).

* STOXX Europe 600 Chemicals: Sector index by index issuer STOXX; the STOXX Europe 600 comprises 600 European companies.

Basic Principles for Determining Compensation

Determining Target Compensation

The Supervisory Board determines the total target compensation for the upcoming fiscal year for each Board of Management member in accordance with the compensation system. This compensation is appropriate in view of the Board of Management member's duties and takes into account Covestro's financial situation, performance, and future prospects.

As of January 1, 2021, the fixed compensation of Board of Management members was increased based on the change in the previous year's consumer price index (0.78% from November 2019 to October 2020). The target compensation of individual Board of Management members based on the compensation system in effect is outlined below.

Target compensation of individual Board of Management members¹

	Dr. Markus Steilemann (Chair)		Sucheta Govil (Sales and Marketing)		Dr. Klaus Schäfer (Technology)		Dr. Thomas Toepfer (Finance and Labor Director)	
	2020		2021		2020		2021	
	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand	in %
Fixed annual compensation	1,210	25.7	1,219	25.8	609	27.9	614	27.4
Fringe benefits ²	30	0.6	30	0.6	30	1.4	30	1.3
Total	1,240		1,249		639		644	
Short-term variable compensation ³								
for fiscal 2020	1,210	25.7		609	27.9		609	26.3
for fiscal 2021			1,219	25.8		614	27.4	
Long-term variable compensation ⁴							614	26.3
2020–2023 Prisma tranche	1,573	33.4		792	36.2		792	34.1
2021–2024 Prisma tranche			1,585	33.5		798	35.7	
Pension expense ⁵	681	14.5	679	14.3	146	6.7	182	8.1
Total compensation	4,704		4,732		2,186		2,238	
	2,319				2,319		2,336	
							2,697	
								2,727

¹ Due to rounding, the percentage values do not always add up to 100%.

² Included: Annual mobility allowance of €24 thousand and normally expected costs (e.g., of a health screening examination, and maintenance and repair of security systems installed).

³ Target value: 100% of fixed annual compensation.

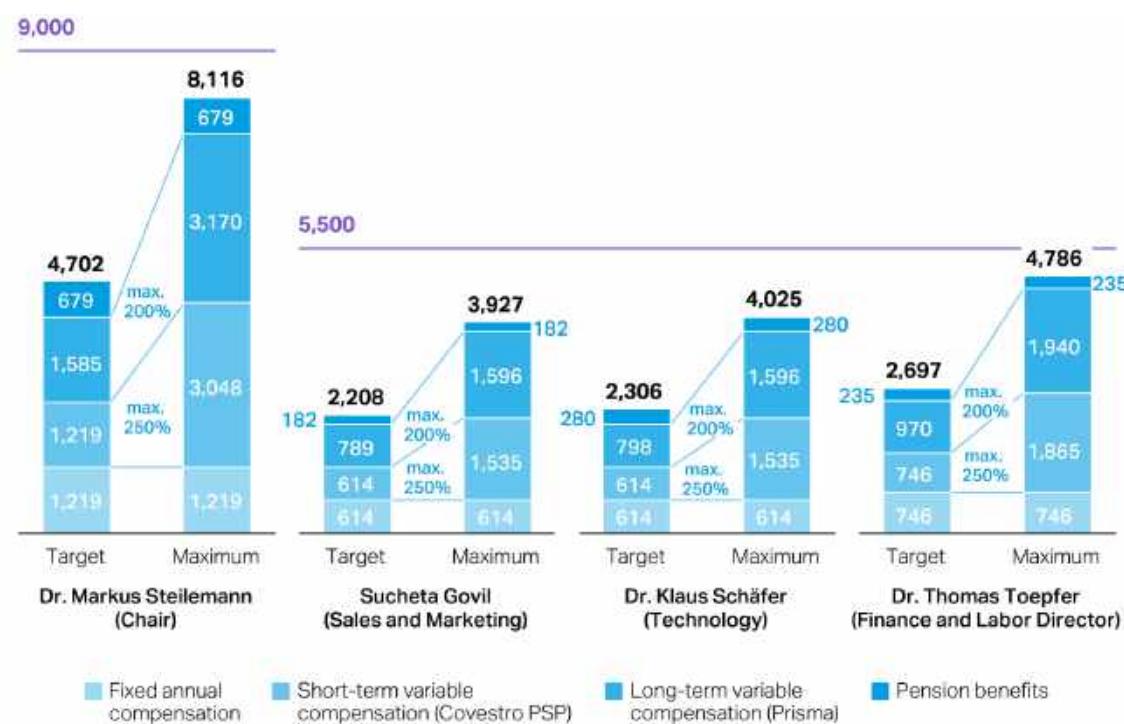
⁴ Target value: 130% of fixed annual compensation.

⁵ Expected pension service cost (IFRSs).

Compliance with Maximum Compensation Limit

Pursuant to Section 87a, Paragraph 1, Sentence 2, No. 1 of the German Stock Corporation Act (AktG), the Supervisory Board has stipulated maximum total compensation for the Board of Management members. The absolute amount in euros for the maximum possible payout includes fixed compensation, fringe benefits (e.g., mobility allowance, payments toward the cost of security equipment, screening examinations, etc.), capped variable compensation components, and pension expenses. As a result, the maximum total compensation for a full fiscal year for the Chair of the Board of Management amounts to €9.0 million, while this amount for the regular Board of Management members is €5.5 million.

A report cannot be provided on compliance with this maximum compensation limit until fiscal 2025, when the Board of Management members are entitled to receive a payout from the 2021–2024 tranche of the Prisma long-term variable compensation program. The possible maximum compensation for fiscal 2021, taking into account the respective caps of 250% for short-term and 200% for long-term variable compensation, is outlined below. Based on these two caps, the aforementioned amounts are guaranteed not to exceed the maximum total compensation for Board of Management members.

Target compensation and maximum compensation for the Board of Management for fiscal 2021 (€ thousand)¹**Review of Appropriateness**

The Supervisory Board commissioned an expert opinion from a third-party consultant firm to ensure the compensation is appropriate compared to other companies. The peer group used was the entire group of DAX and MDAX companies, except banks and insurance companies due to their limited comparability. Based on equally weighted KPIs – revenue, headcount, and market capitalization – Covestro ranks 37th (56th percentile) in this group. The following Board of Management compensation components were compared with the market value for each, i.e., the compensation of board of management members in the peer group:

- Fixed annual compensation
- Target cash compensation = Fixed annual compensation + Target value for short-term variable compensation
- Target direct compensation = Target cash compensation + Target value for long-term variable compensation
- Total target compensation = Target direct compensation + Company pension plan

The costs of the company pension plan were determined by using actuarial methods to calculate a company pension plan premium. This premium indicates the amount that would have to be paid to a third-party pension plan to purchase the relevant pension benefits. Using the same parameters for the calculation, the premium amount, and therefore the costs, can be compared to the pension benefits of the board of management members of other companies.

Based on the expert opinion, the target and maximum compensation of the Board of Management was deemed to be in line with the market standard on the whole and therefore appropriate within the meaning of the AktG.

Furthermore, the Supervisory Board reviewed the company's compensation structure and, for this purpose, compared the fixed annual compensation, target cash compensation, and target direct compensation of the Board of Management members with the corresponding compensation components of the Executive Leadership Team (executives at the two highest contract levels below of the Board of Management) and the workforce as a whole (employees subject and not subject to collective bargaining agreements, including the Executive Leadership Team) at Covestro in Germany. The internal compensation structure was also determined to be appropriate in view of this comparison, which covered the period from 2015 to 2020. No adjustment was therefore made to the compensation structure or maximum compensation, except for the aforementioned increase in fixed annual compensation.

Application of the Compensation System in the Reporting Period

The application of the compensation system in fiscal 2021 is presented below.

Nonperformance-Related Components

Fixed Annual Compensation, Fringe Benefits

The adjustment to fixed annual compensation at the start of the fiscal year was described above in "Determining Target Compensation." Fringe benefits mainly comprise a mobility allowance, maintenance and repair of security installations, as well as reimbursement of the cost of an annual screening examination. Sucheta Govil additionally received reimbursement of the cost of tax preparation by an external consulting firm. Fringe benefits are reported at cost or the amount of the taxable benefit gained.

Post-Employment Benefits

Dr. Markus Steilemann and Dr. Klaus Schäfer, who were appointed to the Board of Management in 2015, will receive lifelong pension benefits after they step down from the Covestro Group, but not before they reach the age of 62. These pension payments will be made monthly. The arrangements for surviving dependents basically provide for a widow's/widower's pension amounting to 60% of the member's pension entitlement, and an orphan's pension amounting to 12% of the member's pension entitlement for each child.

The annual pension entitlement is based on defined contributions. From September 1, 2015, onward, Covestro has provided a hypothetical benefit amounting to 33% of the respective fixed compensation beyond the relevant income threshold in the statutory pension plan. This percentage comprises a 6% basic contribution and a matching contribution of up to 27% – three times the member's maximum personal contribution of 9%. The total annual contribution is converted into a pension module according to the annuity table for the applicable tariff of the Rheinische Pensionskasse VVaG, Leverkusen (Germany), pension fund. The annual pension entitlement upon retirement is the total amount of the accumulated pension modules, including an investment bonus.

Dr. Klaus Schäfer has additionally been granted a vested entitlement to a fixed annual pension of €126,750.

The actual pension entitlement cannot be precisely determined in advance. It depends on the development of the member's compensation, the number of years of service on the Board of Management, and the return on the assets contributed to the Rheinische Pensionskasse VVaG. Certain assets are administered under a pension trust, providing additional insolvency protection for pension entitlements resulting from direct commitments for the members of the Board of Management in Germany. As a rule, future pension payments are adjusted by at least 1% per year. Depending on the pension obligation, an additional adjustment may be made if the investment bonus of the Rheinische Pensionskasse VVaG or the consumer price index exceeds 1% per year.

Sucheta Govil and Dr. Thomas Toepfer have agreed to have their company pensions switched to the newly introduced direct commitment to a defined-contribution company pension plan effective April 1, 2021. Covestro and the Board of Management members will each contribute 3% of their fixed annual compensation up to the social security contribution ceiling to a statutory pension plan. For the portion of compensation exceeding the contribution ceiling, Covestro will provide a basic contribution of 6% and a match of up to 30%, three times the Board of Management member's own contribution of 10%. The aforementioned pension arrangement, which continues to apply for Dr. Markus Steilemann and Dr. Klaus Schäfer, applied to these two members from the date they joined Covestro to March 2021.

Short-Term Variable Compensation

The target value of the short-term variable compensation (Covestro PSP) is currently 100% of the fixed annual compensation. The award is based on the performance criteria of growth, liquidity, and profitability, which are used as part of Covestro's management system to plan, manage, control, and report on business performance. This means that short-term variable compensation is directly linked to the company's success.

These performance indicators are applied to the Group-wide short-term Covestro Profit Sharing Plan (Covestro PSP). The Covestro PSP was introduced in 2016 and is applicable to all of Covestro's employees worldwide (with a few exceptions due to stipulations in collective bargaining agreements). Board of Management members also currently participate in the Covestro PSP. They receive their short-term variable compensation based on the rules of this compensation program, which equally weights the KPIs of core volume growth (CVG) for growth, free operating cash flow (FOCF) for liquidity, and return on capital employed (ROCE) for profitability:

Components of short-term variable compensation



In fiscal 2018, the Supervisory Board defined the global values for the threshold, 100% payout, and the maximum amount for each performance indicator, which are applied for a multi-year period from 2019 to 2021. Between these values, linear interpolation is used to determine the payout. There will be no adjustment after the fact.

Relation between payout and growth, liquidity, and profitability



For each individual performance indicator, the payout can be between 0% (failure to meet minimum requirements) and 300%. The total payout is the arithmetic mean of the individual payouts for all three components. However, it is limited to 250% of the target value corresponding to a maximum payout of 2.5 times the fixed annual compensation. This wide bandwidth ties the short-term variable compensation to the normally cyclical course of our business and ensures that profitable years result in attractive payouts, while in less profitable ones, it can be lower or even zero.

Components of the Covestro Profit Sharing Plan 2019–2021

	Growth: Core volume growth	Liquidity: FOCF	Profitability: ROCE
Threshold (0%)	+1.5%	Cash inflow of €400 million	ROCE = WACC
100% target attainment	+4.0%	Cash inflow of €800 million	+8% points above WACC
Ceiling (300%)	+9.0%	Cash inflow of €1,600 million	+24% points above WACC

For the 2021 reporting year, short-term variable compensation for all Board of Management members, less the solidarity contribution explained as follows, totaled €7,619 thousand. This was based on a payout of 239.5% whose calculation is presented in the table below. The solidarity contribution is made by all employees of the companies covered by agreements with the employee representatives in Germany to help safeguard jobs at the German sites. For the 2021 reporting period, the contribution amounted to 0.36% of each employee's Covestro PSP award. By resolution of the Supervisory Board, this contribution is also withheld from the Board of Management.

Payout of the Covestro Profit Sharing Plan for the year 2021

	Growth: Core volume growth	Liquidity: FOCF	Profitability: ROCE
Achieved value	+10.0%	Cash inflow of €1,429 million	+12.9% points above WACC
Resulting payout	300.0%	257.3%	161.3%
Total payout (arithmetic mean)	239.5%		

Short-Term Variable Compensation Starting in Fiscal 2022

As of fiscal 2022, the Covestro PSP was expanded and aligned with the Sustainable Future corporate strategy, which focuses – among others – on a circular economy and sustainable growth. On the one hand, core volume growth as a KPI was replaced by EBITDA. On the other hand, a fourth KPI relating to ESG criteria (environment, social, governance) was also introduced. This factor determines the payout based on the greenhouse gas emissions (CO₂ equivalents, CO₂e) of Covestro's own operations and the energy purchased by Covestro (Scope 1 and Scope 2 emissions).

In December 2021, the Supervisory Board decided that Board of Management members should continue to receive their short-term variable compensation based on the rules of the Covestro PSP. A detailed explanation of the compensation system, which has been revised to reflect this change, will be published when the 2022 AGM is convened. It will be presented to the AGM for approval at that time.

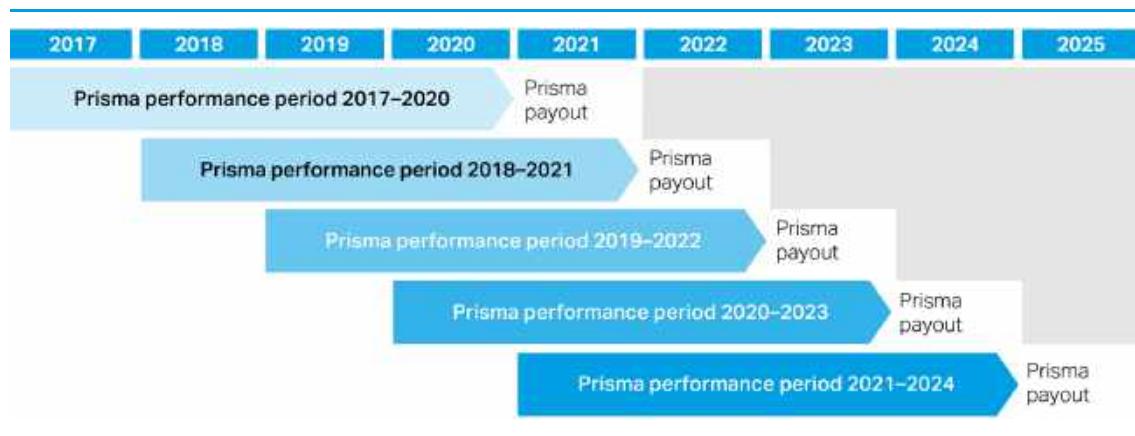
Long-Term Variable Compensation

The Prisma stock-based program for long-term variable compensation takes into account the performance of Covestro shares, including the dividend (total shareholder return) and outperformance against the STOXX Europe 600 Chemicals* index over a period of four years. In fiscal 2021, the LTI plan was expanded to also include a sustainability component. The long-term variable compensation is geared toward the sustained, future-oriented, and continuous growth of the company's value and guarantees the implementation of Covestro's Sustainable Future corporate strategy, particularly since the introduction of the sustainability component. Prisma is applicable to both members of the Board of Management and to Covestro executives. The LTI target value amounts to 130% of fixed annual compensation for members of the Board of Management, and participation requires that they fulfill the share ownership guidelines applicable to them.

A new Prisma tranche with a four-year performance period is issued for each fiscal year. At the beginning of this performance period, the Supervisory Board stipulates the performance criteria for outperformance and sustainability as well as the relative weighting of these two criteria, which are linked to the overall criterion of total shareholder return (TSR) as multipliers.

* STOXX Europe 600 Chemicals: Sector index by index issuer STOXX; the STOXX Europe 600 comprises 600 European companies.

Prisma performance periods



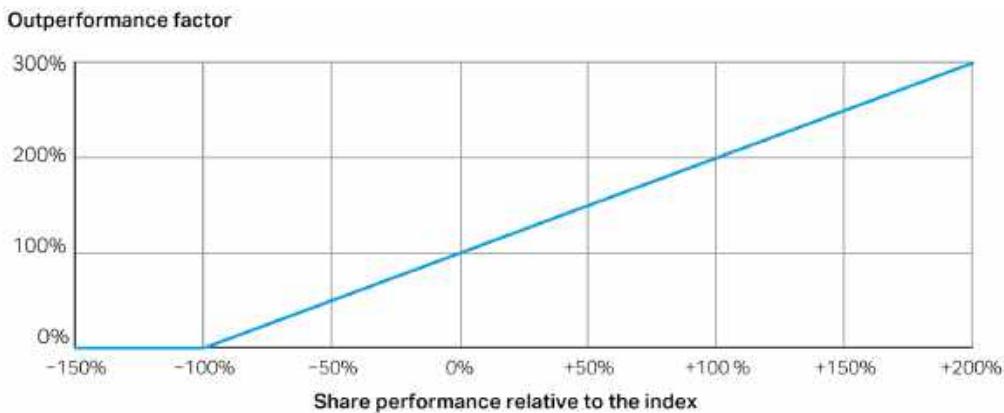
The payout is determined by calculating three factors: the TSR factor, the outperformance factor, and the CO₂ factor.

The TSR factor is the return generated by a share expressed as a percentage (total of the final price of the Covestro share and all dividends distributed per share during the four-year performance period divided by the initial price).

The outperformance factor is based on the performance of Covestro shares during the performance period relative to the performance of the STOXX Europe 600 Chemicals index. For the tranche beginning in fiscal year 2021, the following was determined:

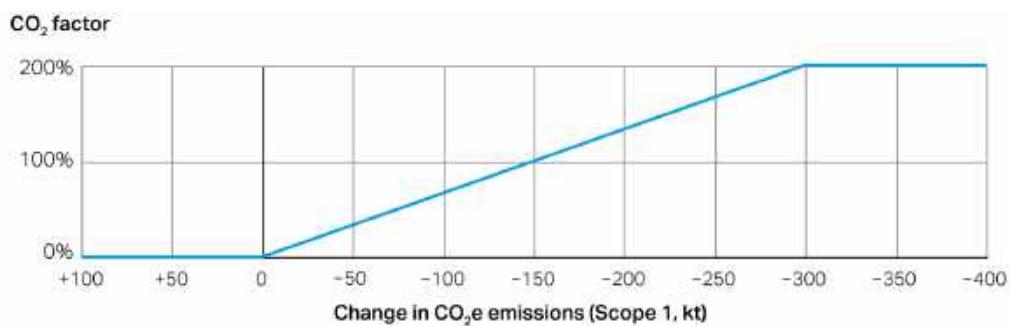
- The outperformance factor amounts to 100% if Covestro's share performance (in %) matches the performance of the index (in %).
- The outperformance factor is 0% if the performance of Covestro shares (in %) underperforms the index by 100 percentage points or more.
- The outperformance factor increases in proportion with the deviation if Covestro's share performance falls within ± 100 percentage points of the performance of the index. The same is true if it outperforms the index by more than 100 percentage points.

Relation between the outperformance factor and Covestro's share performance



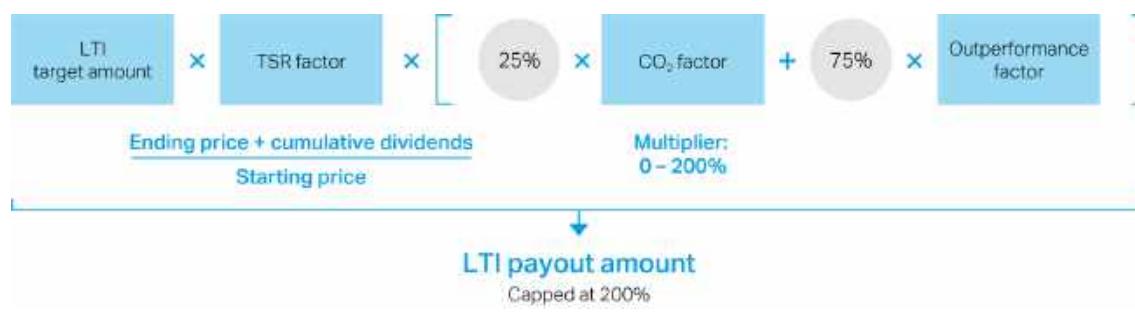
Starting with the tranche issued in fiscal 2021, the sustainability component applied is a reduction target for annual greenhouse gas (GHG) emissions (CO_2e) classified in Scope 1. The CO_2 factor amounts to 100% if these emissions are reduced by 150 kilotonnes (kt) by the end of fiscal 2024 in relation to the baseline year of 2020. This corresponds to an emissions reduction of 12%. If the annual emissions remain unchanged, the CO_2 factor is 0%. Starting with a reduction of 300 kilotonnes, it reaches the maximum value of 200%. Between these values, linear interpolation is used to determine the factor. The Supervisory Board considers the defined reduction targets as significant in relation to the company's actual Scope 1 emissions.

Relation between emissions and CO_2 factor



In order to calculate the total payout for the tranche beginning in fiscal 2021, the LTI target opportunity is multiplied by the TSR factor, the outperformance factor weighted at 75%, and the CO_2 factor weighted at 25%. The total distribution is limited to no more than 200% of the target opportunity. With the target opportunity being defined as 130% of the fixed compensation, the maximum payout is therefore 260% of the fixed annual compensation.

Components of the long-term variable compensation



In the case of the previous tranches which did not include a sustainability component, the payout factor is determined by multiplying the TSR factor and outperformance factor. The total payout in this case is also capped at a maximum of 200% of the target opportunity.

2017–2020 and 2018–2021 Prisma Tranche Payouts

In January of the year under review, Dr. Markus Steilemann and Dr. Klaus Schäfer, who were appointed to the Board of Management in 2015, received payouts from the 2017–2020 Prisma tranche. The payout factor amounted to 39.9%.

Besides Dr. Markus Steilemann and Dr. Klaus Schäfer, Dr. Thomas Toepfer was also entitled for the first time to participate in the 2018–2021 Prisma tranche, which ended on December 31 of the reporting year with a payout factor of 17.7% and a payout date in January 2022.

The following chart and table illustrate how the aforementioned payout factors are calculated.

Calculation of the 2017–2020¹ Prisma tranche

Ending price	+	Cumulative dividends 2017–2020	=	Total shareholder return (TSR) factor
Starting price				
€47.05	+	€7.15	=	+89.4%
		€60.66		
100%	+	(Change in Covestro share price ² – Change in index price ³)	=	Outperformance factor
100%	+	(-22.4% – +33.0%)	=	+44.6%
TSR factor	×	Outperformance factor	=	Prisma payout
+89.4%	×	+44.6%	=	+39.9%

¹ The relevant prices are calculated as the average of the applicable ending prices during the months of November and December in the years 2016 and 2020.

² Percentage change in the ending price of Covestro share for the year 2020 (€47.05) as compared with the starting price of Covestro share for the year 2017 (€60.66).

³ Percentage change in the ending price of the STOXX Europe 600 Chemicals index for the year 2020 (€1,088.78) as compared with the starting price of the STOXX Europe 600 Chemicals index for the year 2017 (€818.81).

Calculation of the payout factors for the 2017–2020 and 2018–2021 Prisma tranches

	2017–2020 Prisma tranche	2018–2021 Prisma tranche
Starting price, Covestro	€60.66 ¹	€84.34 ²
Ending price, Covestro	€47.05 ³	€53.53 ⁴
Change	-22.4%	-36.5%
Starting price, index	€818.81 ¹	€962.86 ²
Ending price, index	€1,088.78 ³	€1,336.97 ⁴
Change	+33.0%	+38.9%
Cumulative dividend	€7.15	€7.10
TSR factor	+89.4%	+71.9%
Outperformance factor	+44.6%	+24.6%
Payout factor	+39.9%	+17.7%

¹ November/December 2016

² November/December 2017

³ November/December 2020

⁴ November/December 2021

The dividend payments for individual years are available on Covestro's website.

⊕ Additional information is available at: www.covestro.com/en/investors/stock-performance/dividends

The amounts paid out for these two tranches, including to former Board of Management members Frank H. Lutz and Patrick Thomas, are shown in the following table.

Payout amounts for 2017–2020 and 2018–2021 Prisma tranches¹

€ thousand	2017–2020 Prisma tranche		2018–2021 Prisma tranche	
	Target value ²	Payout in January 2021 (payout factor 39.9%)	Target value ²	Payout in January 2022 (payout factor 17.7%)
Dr. Markus Steilemann ³	718	286	730	129
Dr. Klaus Schäfer	718	286	730	129
Dr. Thomas Toepfer ⁴			930	165
Frank H. Lutz ⁵	370	148		
Patrick Thomas ⁶	1,495	597	1,140	202

¹ Sucheta Govil was appointed to the Board of Management in August 2019, and therefore will not receive a proportional payout from the 2019–2022 Prisma tranche until early fiscal 2023.

² The target value is based on the position and the corresponding fixed compensation of the respective Board Member at the beginning of each tranche.

³ CEO since June 1, 2018; previously Board of Management member for Sales and Marketing.

⁴ Member of the Board of Management since April 1, 2018.

⁵ Member of the Board of Management until June 2, 2017.

⁶ CEO and member of the Board of Management until May 31, 2018.

Overview of Current Prisma Tranches

The three currently running Prisma tranches with their starting prices and fair values calculated as of the reporting date (market value of the relevant tranche determined with a Monte Carlo simulation) are explained below.

Current Prisma tranches

€	2019–2022 Prisma tranche	2020–2023 Prisma tranche	2021–2024 Prisma tranche ¹
Covestro share			
Starting price	50.22	43.36	47.05
As of December 31, 2021	54.20	54.20	54.20
STOXX Europe 600 Chemicals			
Starting price	832.55	1,010.32	1,088.78
As of December 31, 2021	1,366.92	1,366.92	1,366.92
Fair value, December 2021	+54.5%	+101.5%	+116.5%

¹ The fair value was calculated assuming a value of 100% for the CO₂ factor first introduced with the 2021–2024 tranche.

Share Ownership Guidelines and Shareholdings

As a rule, the members of the Board of Management are contractually obligated to acquire Covestro shares equivalent to 100% of the fixed compensation (as set at the start of their term) on their own account within three years of their initial appointment and to hold these shares for the duration of their service on the Board of Management. If their contracts are extended, this obligation is increased to the amount of the new fixed compensation. The Board of Management member in question must acquire Covestro shares equivalent to the difference within four years of starting the new period of service. The aforementioned rule was first applied in fiscal 2021. The previously applied share ownership guidelines are currently still applicable to the Board of Management members Dr. Markus Steilemann and Dr. Klaus Schäfer and stipulate that they purchase a specified number of Covestro shares by a predefined date. They have already fully met this requirement. They have to hold the shares they purchased for the duration of their Board of Management activities.

The following table lists the number of Covestro shares held by currently serving Board of Management members as of the reporting date.

Number of shares held by Board of Management members at reporting date

Board of Management member	Number of Covestro shares held
Dr. Markus Steilemann	23,100
Sucheta Govil	6,251
Dr. Klaus Schäfer	5,415
Dr. Thomas Toepfer	5,500

Malus and Clawback Clauses

According to the malus and clawback rules introduced in the year 2021, the Supervisory Board can withhold short-term and/or long-term variable compensation or request the return of variable compensation already paid out, either in whole or in part, at its discretion in the event of serious breaches of duty or compliance violations. Moreover, a clawback is possible when the calculation and payout was based on incorrect data.

The Supervisory Board has not exercised the right to claw back variable compensation, because no circumstances arose either before or during the reporting year 2021 that would have triggered this provision.

Benefits Associated with Ending Board of Management Service

If the term of Board of Management service is terminated early without good cause, the company fulfills its commitments up to the time the member leaves the company. In this case, payments to the Board of Management member, including fringe benefits, may not exceed two times annual compensation and may not compensate more than the remaining term of the employment contract (severance cap). Outstanding variable compensation components are paid out at the originally agreed times and conditions, i.e., they are not paid out in advance.

In the event of a change of control that results in a material change of status of an individual Board of Management member – e.g., change in company strategy or change in the Board of Management's job responsibilities – the Board of Management member has the right to terminate the employment contract within 12 months of the change of control. When this right of termination is exercised or if the employment relationship is ended by mutual agreement on the company's initiative within 12 months of the change of control, the Board of Management member is entitled to payment of severance of 2.5 times the fixed annual compensation. The amount of the severance payments, including fringe benefits, is limited to the remaining compensation up to the expiration of the employment contract and is subject to the severance cap.

Third-Party Benefits

In the reporting year, the Board of Management members were not promised nor did they receive, any benefits from third parties for their activities on the Board of Management.

Board of Management Compensation in the Fiscal Year**Compensation Awarded and Due**

The compensation for the fiscal year awarded and due is outlined below in accordance with Section 162, Paragraph 1 AktG. The amounts of short-term and long-term variable compensation are given for the fiscal year in which the activity for which the compensation is paid was performed in full.

Compensation awarded and due to individual Board of Management members (AktG)¹

	Dr. Markus Steilemann (Chair)				Sucheta Govil (Sales and Marketing)				Dr. Klaus Schäfer (Technology)				Dr. Thomas Toepfer (Finance and Labor Director)			
	2020		2021		2020		2021		2020		2021		2020		2021	
	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand	in %
Fixed annual compensation	1,210	73.6	1,219	28.4	609	87.9	614	29.1	609	61.8	614	27.5	740	87.2	746	27.4
Fringe benefits	27	1.6	28	0.7	24	3.5	29	1.4	30	3.0	28	1.3	36	4.2	28	1.0
Total	1,237		1,247		633		643		639		642		776		774	
Short-term variable compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
for fiscal 2020	120	7.3	—	—	60	8.7	—	—	60	6.1	—	—	73	8.6	—	—
for fiscal 2021	—	—	2,909	67.9	—	—	1,465	69.5	—	—	1,465	65.5	—	—	1,780	65.5
Long-term variable compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2017–2020 Prisma tranche	286	17.4	—	—	—	—	—	—	286	29.0	—	—	—	—	—	—
2018–2021 Prisma tranche	—	—	129	3.0	—	—	—	—	—	—	129	5.8	—	—	165	6.1
Total	1,643		4,285		693		2,108		985		2,236		849		2,719	

¹ Due to rounding, the percentage values do not always add up to 100%.**Disclosures Pursuant to the Recommendations of the German Corporate Governance Code**

The GCGC, as amended on December 16, 2019, no longer provides recommendations on reporting Board of Management compensation using the sample tables included in the version dated February 7, 2017. However, for purposes of improved comparability, the following tables continue to show the compensation and fringe benefits as defined in the GCGC paid for the reporting period (2021) and the prior-year period, including the minimum and maximum achievable variable compensation, and the allocation of compensation for the reporting period or the prior-year period.

Compensation and benefits granted for the reporting period (GCGC)

€ thousand	Dr. Markus Steilemann (Chair)				Sucheta Govil (Sales and Marketing)				Dr. Klaus Schäfer (Technology)				Dr. Thomas Toepfer (Finance and Labor Director)			
	Joined August 20, 2015				Joined August 1, 2019				Joined August 20, 2015				Joined April 1, 2018			
	Target value 2020	Target value 2021	Min. 2021	Max. 2021	Target value 2020	Target value 2021	Min. 2021	Max. 2021	Target value 2020	Target value 2021	Min. 2021	Max. 2021	Target value 2020	Target value 2021	Min. 2021	Max. 2021
Fixed annual compensation	1,210	1,219	1,219	1,219	609	614	614	614	609	614	614	614	740	746	746	746
Fringe benefits	27	28	28	28	24	29	29	29	30	28	28	28	36	28	28	28
Total	1,237	1,247	1,247	1,247	633	643	643	643	639	642	642	642	776	774	774	774
Short-term variable compensation	1,210	1,219	—	3,048	609	614	—	1,535	609	614	—	1,535	740	746	—	1,865
Long-term variable compensation (2020–2023 Prisma tranche) ¹	1,279	—	—	—	644	—	—	—	644	—	—	—	782	—	—	—
Long-term variable compensation (2021–2024 Prisma tranche) ¹	—	1,594	—	3,169	—	803	—	1,596	—	803	—	1,596	—	976	—	1,940
Total	3,726	4,060	1,247	7,464	1,886	2,060	643	3,774	1,892	2,059	642	3,773	2,298	2,496	774	4,579
Pension expense	700	954	954	954	174	348	348	348	285	381	381	381	284	491	491	491
Total compensation	4,426	5,014	2,201	8,418	2,060	2,408	991	4,122	2,177	2,440	1,023	4,154	2,582	2,987	1,265	5,070

¹ Fair value when granted.

Allocation of compensation for the reporting period (GCGC)

	Dr. Markus Steilemann (Chair)		Sucheta Govil (Sales and Marketing)		Dr. Klaus Schäfer (Technology)		Dr. Thomas Toepfer (Finance and Labor Director)	
	Joined August 20, 2015	2020	Joined August 1, 2019	2020	2021	Joined August 20, 2015	2020	2021
€ thousand		2020	2021	2020	2021	2020	2020	2021
Fixed annual compensation	1,210	1,219	609	614	609	614	740	746
Fringe benefits	27	28	24	29	30	28	36	28
Total	1,237	1,247	633	643	639	642	776	774
Short-term variable compensation	120	2909	60	1465	60	1465	73	1780
Long-term variable compensation								
2016–2019 Prisma tranche	1,707	–	–	–	1,707	–	–	–
Long-term variable compensation								
2017–2020 Prisma tranche	–	286	–	–	–	286	–	–
Total	3,064	4,442	693	2,108	2,406	2,393	849	2,554
Pension expense	700	954	174	348	285	381	284	491
Total compensation	3,764	5,396	867	2,456	2,691	2,774	1,133	3,045

Prisma Long-Term Variable Compensation

The fair value when granted of the long-term variable compensation (2021–2024 Prisma tranche) is €4,176 thousand (previous year: €3,349 thousand for the 2020–2023 Prisma tranche).

Provisions amounting to €5,391 thousand (previous year: €4,585 thousand) were recognized as of December 31, 2021, for all current tranches of long-term variable compensation in which active and former Board of Management members participate, €202 thousand of which (previous year: €1,015 thousand) is attributable to former Board of Management members.

Long-term variable compensation (IFRSs)

	Board of Management members serving as of Dec. 31, 2021								Former Board of Management members					
	Dr. Markus Steilemann (Chair)		Sucheta Govil (Sales and Marketing)		Dr. Klaus Schäfer (Technology)		Dr. Thomas Toepfer (Finance and Labor Director)		Frank H. Lutz		Patrick W. Thomas		Total	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
€ thousand														
Total expenses/revenues in the reporting period for long-term variable compensation	977	847	293	447	582	405	591	489	20	–	338	(69)	2,801	2,119

Pension Entitlements

The current pension service cost for the members of the Board of Management recognized in the reporting year totaled €2,174 thousand (previous year: €1,443 thousand) according to IFRSs. The respective pension obligations are shown in the following table.

Pension entitlements (IFRSs)

		Service cost for pension entitlements earned in the respective year		Present value of defined pension obligation as of Dec. 31	
		2020	2021	2020	2021
€ thousand					
Dr. Markus Steilemann		700	954	4,839	5,036
Sucheta Govil		174	348	277	485
Dr. Klaus Schäfer		285	381	6,106	5,997
Dr. Thomas Toepfer		284	491	873	1,076
Total		1,443	2,174	12,095	12,594

Compensation of Former Members of the Board of Management

The compensation awarded and due to former Board of Management members for the fiscal year is outlined below in accordance with Section 162, Paragraph 1 AktG.

Compensation awarded and due to former Board of Management members (AktG)

	Patrick Thomas (until May 31, 2018)				Frank H. Lutz (until June 2, 2017)			
	2020		2021		2020		2021	
	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand	in %
Fixed annual compensation								
Fringe benefits								
Total	597		202		148		148	
Short-term variable compensation								
for fiscal 2020								
for fiscal 2021								
Long-term variable compensation								
2017–2020 Prisma tranche	597	100.0			148	100.0		
2018–2021 Prisma tranche			202	100.0				
Total	597		202		148		148	

A provision of €7,696 thousand (previous year: €8,270 thousand) is recognized in the consolidated financial statements as of December 31, 2021, for current pensions for former Board of Management members. The settlement value of direct and indirect pension obligations in the financial statements of Covestro AG amounted to €6,921 (previous year: €6,315 thousand).

Compensation of the Supervisory Board

Compensation System of the Supervisory Board

The compensation of the Supervisory Board, which has not been changed since Covestro AG was founded, is in line with the relevant provisions of the Articles of Incorporation.

The members of the Supervisory Board each receive fixed annual compensation of €100 thousand plus reimbursement of their expenses.

In accordance with the recommendations of the GCGC, additional compensation is paid to the Supervisory Board Chair and Vice Chair, and for chairing and membership in committees. The Supervisory Board Chair receives fixed compensation of €300 thousand, while €150 thousand is paid to the Vice Chair. This compensation includes chairmanship of and membership in committees. The other members of the Supervisory Board are entitled to additional compensation for membership in or chairmanship of committees. The Chair of the Audit Committee receives an additional €50 thousand, the other members of the Audit Committee €25 thousand each. The chairs of the remaining committees receive €30 thousand each, the other members of those committees €20 thousand each. No additional compensation is paid for membership in the Nominations Committee. Work on committees is eligible for compensation for no more than two committees. If this cap is exceeded, compensation is paid for the two highest paid positions. If changes are made to the Supervisory Board and/or its committees during the year, members receive compensation on a prorated basis. The members of the Supervisory Board also receive an attendance fee of €1 thousand each time they personally attend a meeting of the Supervisory Board or a committee. The attendance fee is limited to €1 thousand per day. No attendance fees were paid for meetings held virtually due to the coronavirus pandemic.

 See "Report of the Supervisory Board."

Compensation of the Supervisory Board for the Fiscal Year

The following table outlines the components of each Covestro AG Supervisory Board member's compensation for the 2021 reporting period and the prior-year period:

Compensation of the members of the Supervisory Board of Covestro AG

€ thousand	Fixed compensation		Attendance fee		Total	
	2020	2021	2020	2021	2020	2021
Ferdinando Falco Beccalli (until April 2021)	100	29	2	–	102	29
Dr. Christine Bortenlänger	111	125	–	1	111	126
Johannes Dietsch (until July 2020)	84	–	2	–	86	–
Lise Kingo (since April 2021)	–	82	–	2	–	84
Petra Kronen (Vice Chair)	150	150	2	2	152	152
Irena Küstner	125	125	2	2	127	127
Dr. Ulrich Liman	120	127	1	2	121	129
Prof. Dr. Rolf Nonnenmacher	150	150	3	3	153	153
Dr. Richard Pott (Chair)	300	300	2	2	302	302
Petra Reinbold-Knape (since January 2020)	139	145	2	2	141	147
Regine Stachelhaus	128	140	1	2	129	142
Marc Stothfang	100	107	1	–	101	107
Patrick Thomas (since July 2020)	53	132	–	–	53	132
Frank Werth	100	100	1	2	101	102
Total	1,660	1,712	19	20	1,679	1,732

In addition to their compensation as members of the Supervisory Board, those employee representatives who are employees of Covestro Group companies receive compensation unrelated to their service on the Supervisory Board. The total amount of such compensation was €667 thousand (previous year: €652 thousand).

No compensation was paid or benefits granted to members of the Supervisory Board for personally performed services such as consulting or agency services. The company has purchased insurance for the members of the Supervisory Board to cover their personal liability arising from their service on the Supervisory Board and which to date has included a deductible. The relevant recommendation has been eliminated from the version of the GCGC dated December 16, 2019, so the Supervisory Board's rules of procedure have been amended accordingly. No deductible will be required going forward.

Proposed Changes from Fiscal 2022 Onward

The amount and structure of Supervisory Board compensation at Covestro AG has remained unchanged since fiscal 2015, when the company was still listed in the MDAX. An adjustment to the compensation system described above will be proposed to the 2022 AGM. This is due to the significant increase in quality and time requirements for the Supervisory Board, its committees, and its members in recent years. For the Audit Committee, for example, this also stems from new statutory requirements such as the Act to Strengthen Financial Market Integrity (FISG).

Taking into account the results of a report by an independent external consulting firm, the Supervisory Board has developed the following proposals:

- The ratios between the compensation of the Supervisory Board Chair and the Vice Chair and of the other Supervisory Board members are currently 3:1.5:1, but would be changed to a ratio of 3:2:1.
- The compensation of the committees, including their chairs, will be adjusted to reflect the respective qualitative requirements and the associated workload.
- The fixed compensation, which has remained unchanged since fiscal 2015, is to be increased.

A more detailed presentation of these proposals will be published together with the corresponding amendment to the Articles of Association when the 2022 AGM is convened.

Comparative Presentation of Annual Changes in Compensation and Earnings

The following is the presentation of the annual changes in compensation awarded and due to current and former Board of Management and Supervisory Board members compared with the company's earnings performance and the average compensation of employees (FTEs) from fiscal years 2017 to 2021 as required by Section 162, Paragraph 1, Sentence 2, No. 2 AktG.

Five-year comparison of compensation awarded and due to Board of Management members (AktG)¹

	2017 € thousand	2018 € thousand	2018 in %	2019 € thousand	2019 in %	2020 € thousand	2020 in %	2021 € thousand	2021 in %
Board of Management members as of December 31, 2021									
Dr. Markus Steilemann (Chair)	2,364	3,458	+46.3	3,168	-8.4	1,643	-48.1	4,285	>100
Sucheta Govil (since August 1, 2019)	-	-		320		693	+116.6	2,108	>200
Dr. Klaus Schäfer	2,284	1,724	-24.5	2,462	+42.8	985	-60.0	2,236	>100
Dr. Thomas Toepfer (since April 1, 2018)	-	3,329	0.0	1,014	-69.5	849	-16.3	2,719	>200
Former Board of Management members									
Patrick Thomas (until May 31, 2018)	4,493	2,266	-49.6	3,260	+43.9	597	-81.7	202	-66.2
Frank H. Lutz (until June 2, 2017)	1,562	-	0.0	2,111	0.0	148	-93.0	-	0.0
Total	10,703	10,777	+0.7	12,335	+14.5	4,915	-60.2	11,550	>100

¹ Percentage changes always refer to the change from the respective previous year.

Five-year comparison of compensation awarded and due to Supervisory Board members (AktG)¹

	2017 € thousand	2018 € thousand	2018 in %	2019 € thousand	2019 in %	2020 € thousand	2020 in %	2021 € thousand	2021 in %
Supervisory Board members as of December 31, 2021									
-	-	0.0	-	0.0	-	0.0	-	-	0.0
Dr. Christine Bortenländer	105	105	0.0	106	+1.0	111	+4.7	126	+13.5
Lise Kingo (since April 2021)	-	-	0.0	-	0.0	-	0.0	84	0.0
Petra Kronen (Vice Chair)	162	160	-1.2	160	0.0	152	-5.0	152	0.0
Irena Küstner	135	134	-0.7	134	0.0	127	-5.2	127	0.0
Dr. Ulrich Liman (since January 2018)	-	127	0.0	128	+0.8	121	-5.5	129	+6.6
Prof. Dr. Rolf Nonnenmacher	159	159	0.0	159	0.0	153	-3.8	153	0.0
Dr. Richard Pott (Chair)	313	310	-1.0	309	-0.3	302	-2.3	302	0.0
Petra Reinfeld-Knappe (since January 2020)	-	-	0.0	-	0.0	141	0.0	147	+4.3
Regine Stachelhaus	127	125	-1.6	126	+0.8	129	+2.4	142	+10.1
Marc Stothfang	95	105	+10.5	106	+1.0	101	-4.7	107	+5.9
Patrick Thomas (since July 2020)	-	-	0.0	-	0.0	53	0.0	132	+149.1
Frank Werth	106	105	-0.9	106	+1.0	101	-4.7	102	+1.0
Former Supervisory Board members	-	-	0.0	-	0.0	-	0.0	-	0.0
Ferdinando Falco Beccalli (until April 2021)	105	104	-1.0	106	+1.9	102	-3.8	29	-71.6
Johannes Dietsch (until July 2020)	156	155	-0.6	154	-0.6	86	-44.2	-	
Peter Hausmann (until December 2019)	154	153	-0.6	153	0.0	-			
Dr. Thomas Fischer (until December 2017)	128	-							
Sabine Wirtz (until February 2017)	11	-							
Total	1,756	1,742	-0.8	1,747	+0.3	1,679	-3.9	1,732	+3.2

¹ Percentage changes always refer to the change from the respective previous year.

In addition to the net income/net loss of Covestro AG (which is legally required to be reported), earnings performance includes the key figures of the Covestro Group underlying short-term variable compensation (core volume growth, FOCF, and ROCE) as well as EBITDA. The latter will replace core volume growth as a key management indicator for growth starting in fiscal 2022.

Employee compensation was calculated by dividing personnel expenses (wages and salaries plus social expenses and expenses for pensions and other benefits) disclosed in the annual report for the relevant period by the number of employees expressed as full-time equivalents (FTEs) as of the reporting date.

Five-year comparison of earnings figures (AktG)¹

	2017	2018	2019		2020		2021		
	€ million	€ million	in %	€ million	in %	€ million	in %	€ million	in %
Net income/net loss Covestro AG	488	496	+1.6	623	+25.6	-45	-107.2	648	.
Core volume growth ²	+3.4%	+1.5%		+2.0%		-5.6%		+10.0%	
Free operating cash flow ³	1,843	1,669	-9.4	473	-71.7	530	+12.1	1,429	>100
EBITDA ⁴	3,435	3,200	-6.8	1,604	-49.9	1,472	-8.2	3,085	>100
ROCE ⁵	+33.4%	+29.5%		+8.4%		+7.0%		+19.5%	

¹ Percentage changes always refer to the change from the respective previous year.

² Core volume growth refers to the core products in the Performance Materials and Solutions & Specialties segments. It is calculated as the percentage change in externally sold volumes compared with the prior year. Covestro also takes advantage of business opportunities outside its core business, for example the sale of precursors and by-products such as hydrochloric acid, sodium hydroxide solution, and styrene. These transactions are not included in core volume growth. Retroactive calculation based on the definition of the core business as of March 31 of each subsequent year.

³ Free operating cash flow: cash flows from operating activities less cash outflows for additions to property, plant, equipment, and intangible assets.

⁴ EBITDA: Adjusted operating result (EBIT) plus depreciation, amortization, and impairment losses; less impairment loss reversals on intangible assets and property, plant and equipment.

⁵ ROCE: The return on capital employed is calculated as the ratio of EBIT after taxes to capital employed. The indicator is calculated as a ratio of the adjusted operating result (EBIT) after imputed income taxes to capital employed. Capital employed is the capital used by the company. It is the sum of noncurrent and current assets less noninterest-bearing liabilities such as trade accounts payable.

Five-year comparison of employee compensation (AktG)¹

	2017	2018	2019		2020		2021		
Personnel expenses (in € million)	1,915	1,958	+2.2%	1,762	-10.0%	1,723	-2.2%	2,298	+33.4%
Employees ²	16,176	16,770	+3.7%	17,201	+2.6%	16,501	-4.1%	17,909	+8.5%
Personnel expenses per FTE (€ thousand)	118	117	-1.4%	102	-12.3%	104	+1.9%	128	+22.6%

¹ Percentage changes always refer to the change from the respective previous year.

² The number of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours. The figures do not include employees in vocational training.

Other Information

There were no advances or loans to members of the Board of Management or the Supervisory Board outstanding as of either December 31, 2020, or December 31, 2021.

DISCLOSURES ON SUSTAINABILITY REPORTING

Covestro aims to help protect the environment, conserve limited resources, advance society, and create value, all by firmly integrating sustainability into the our Group strategy and management.

Our sustainability reporting is based on recognized standards. We report on material topics and nonfinancial performance indicators pursuant to Section 315 (3) of the German Commercial Code (HGB) in our Group Management Report and supplement this information with additional content, which is additionally required in accordance with the standards of the Global Reporting Initiative (GRI) "Core" option.

Nonfinancial Group Statement

We publish the nonfinancial Group statement pursuant to Sections 315b and 315c in conjunction with Sections 289c through 289e HGB as an integrated part of the Group Management Report. The respective sections include the strategies we pursue in addressing environmental, labor, and social issues as well as protecting human rights and fighting corruption and bribery, including the due diligence processes followed and measures implemented, as well as the outcomes of these strategies.

We applied the GRI standards as a framework for preparing the nonfinancial Group statement.

Key topics relevant to the nonfinancial Group statement are identified in an internal process and in consideration of their significance and implementation within the company. The starting point for this is the materiality assessment and the material sustainability topics identified or updated as a result, i.e., the topics of high or very high relevance for Covestro. The following table provides an overview of the key sustainability topics with an eye to the relevant aspects and contains references to the specific sections in the Group Management Report. In order to identify and address current developments and sustainability-related opportunities and risks at an early stage, we also review whether there are any new findings relevant to opportunity and risk management. No material risks have been identified in connection with Covestro's own business activities, business relationships, or products that have or are very likely to have a severely negative impact on the nonfinancial aspects of the company's business.

 See "Opportunities and Risks Report."

Key sustainability topics of the Group's nonfinancial statement (HGB)

Key topics of the Group's nonfinancial statement (German Commercial Code)	Relevant aspects in accordance with the Group's nonfinancial statement (German Commercial Code)	Section reference in the Group Management Report
Alternative raw materials	Environmental matters, social matters	"Strategy," "Management," "Circular Economy and Climate Neutrality," "Innovation."
Compliance	Environmental matters, fighting corruption and bribery, respect for human rights	"Opportunities and Risks Report," "Compliance."
Diversity, equity, and inclusion	Social matters, employee matters, respect for human rights	"Employees."
Employer attractiveness	Employee matters	"Employees."
Greenhouse gas emissions	Environmental matters	"Management," "Circular Economy and Climate Neutrality."
Health and safety of our workforce	Employee matters	"Health and Safety."
Human rights due diligence	Social matters, respect for human rights	"Management," "Social Responsibility."
Inclusive business	Social matters	"Management," "Social Responsibility."
Process and plant safety	Environmental matters, social matters	"Health and Safety."
Product safety	Social matters	"Product Stewardship."
Recyclability and end-of-life solutions	Environmental matters	"Strategy," "Circular Economy and Climate Neutrality."
Renewable energy	Environmental matters, social matters	"Strategy," "Circular Economy and Climate Neutrality," "Innovation."
Sustainability in sourcing	Environmental matters, social matters, fighting corruption and bribery, respect for human rights	"Procurement," "Management," "Sustainability in the Supply Chain."
Sustainable product portfolio	Environmental matters, social matters	"Management," "Innovation."
Sustainable R&D-based innovation portfolio	Environmental matters, social matters	"Management," "Innovation."

As an integral part of the Group Management Report, the nonfinancial Group statement was audited by the financial statement auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Germany), as part of the audit of the consolidated financial statements based on an expansion of the audit engagement.

A nonfinancial statement or nonfinancial report does not have to be provided at this time for Covestro AG.

EU Taxonomy

The European Union's Taxonomy Regulation 2020/852 (EU Taxonomy), and particularly its delegated acts, are the basis for various current and future initiatives by the European Union (EU) to facilitate sustainable financial reporting. As a company required to submit a nonfinancial statement, Covestro must, in accordance with Article 8(1) of the Taxonomy Regulation, disclose information about how and the extent to which our activities are associated with economic activities which qualify as environmentally sustainable economic activities based on the Taxonomy Regulation. The Taxonomy Regulation introduces key performance indicators (KPIs) to enable and improve performance measurement. In fiscal 2021, our report includes information in line with the Taxonomy Regulation and its delegated acts, two of which were published at the reporting date. One delegated act defines technical screening criteria for determining activities that contribute substantially to the environmental objectives of climate change mitigation and adaptation. The other delegated act spells out the content and presentation of the information to be disclosed.

We have elected to exercise the exemptions permitted in fiscal 2021. These allow us to initially only report on our taxonomy-eligible economic activities in connection with the aforementioned environmental objectives. Reporting on our taxonomy-aligned activities is not required. Some legal concepts in the EU Taxonomy have not been defined conclusively, which has led to uncertainty regarding their interpretation.

Taxonomy-Eligible Economic Activities

In fiscal 2021, we identified the following taxonomy-eligible economic activities as defined in Article 3 of the Taxonomy Regulation relating to the environmental objectives of climate change mitigation and adaptation:

- Manufacture of hydrogen
- Manufacture of chlorine
- Manufacture of organic base chemicals
- Manufacture of nitric acid
- Manufacture of plastics in primary form

Some activities in our portfolio are not covered by the taxonomy (e.g., the manufacture of isocyanates such as MDI, TDI, etc.)

Calculation of Taxonomy KPIs

We calculate taxonomy KPIs and report on the nature of our taxonomy-eligible economic activities in accordance with Article 10(3) and Article 11(3) of Regulation (EU) 2020/852. The KPIs we are required to report the share of turnover, capital expenditure (CapEx), and operating expenditure (OpEx) that are generated by taxonomy-eligible activities. The way in which we define and document these KPIs and run the data queries for the calculations prevents double-counting amounts when allocating turnover, CapEx, and OpEx to our economic activities. Where data could not be definitively allocated, we apply suitable allocation models to appropriately reflect them in the KPI calculation. Controls in our internal control system are used to support accurate calculation of the taxonomy KPIs reported and the underlying processes.

 See "Internal Control System for (Group) Accounting and Financial Reporting."

In accordance with section 1.2.3. of Annex 1 of the delegated act specifying the content and presentation of information to be disclosed, we have elected not to report on the activities of joint ventures.

Turnover

The EU Taxonomy defines turnover as net sales of goods or services, including intangible goods. The share of turnover generated from taxonomy-eligible economic activities is divided by net sales. In order to determine the turnover generated by Covestro from taxonomy-eligible economic activities, we allocated the relevant Covestro products to these activities. The corresponding turnover for the fiscal 2021 was then calculated for the identified products and a ratio derived using Covestro's sales reported in the Income Statement (denominator).

 See "Covestro Group Consolidated Income Statement."

Capital Expenditure

Covestro's capital expenditure (CapEx) as defined in the EU Taxonomy includes acquisitions of property, plant and equipment and intangible assets during the fiscal year under review before depreciation/amortization/-impairment losses and remeasurement, including those arising from remeasurement and impairment losses for the relevant fiscal year without changes in fair value. This also includes all property, plant and equipment, and intangible assets resulting from business combinations. The taxonomy-eligible CapEx relates to assets or processes associated with taxonomy-eligible economic activities, or that are part of a plan to expand taxonomy-aligned economic activities or to develop taxonomy-eligible into taxonomy-aligned economic activities, or that relate to the acquisition of products from taxonomy-eligible economic activities and individual measures that enable target activities to be conducted in a low-carbon manner or reduce emissions of greenhouse gases.

Covestro uses the investments in and acquisitions of property, plant and equipment and intangible assets as reported in the Notes to the Consolidated Financial Statements in the Annual Report 2021 (denominator). Of these, the share of taxonomy-eligible CapEx must be determined (numerator). To this end, the products identified as originating from taxonomy-eligible economic activities were allocated to the corresponding CapEx. In addition, individual expenditures from the acquisition of products from taxonomy-eligible economic activities and individual measures implemented to reduce greenhouse gas (GHG) emissions are taken into account. For this KPI, we calculated the ratio of various taxonomy-eligible CapEx to investments in and acquisitions of property, plant and equipment and intangible assets for Covestro as reported in the Annual Report.

 See note 13 "Goodwill and Other Intangible Assets" and note 14 "Property, Plant and Equipment" in the Notes to the Consolidated Financial Statements.

Operating Expenditure

Operating expenditure (OpEx) as defined in the EU Taxonomy comprises direct, uncapitalized costs relating to research and development, building renovation projects, short-term leases, maintenance and repairs, and all other expenses directly related to the daily maintenance of assets classified as property, plant and equipment that are necessary for ensuring the Group's functioning. The taxonomy-eligible operating expenditure relates to assets or processes associated with taxonomy-eligible economic activities, or that are part of a plan to expand taxonomy-aligned economic activities or to develop taxonomy-eligible into taxonomy-aligned economic activities, or that relate to the acquisition of products from taxonomy-eligible economic activities and individual measures that enable target activities to be conducted in a low-carbon manner or reduce emissions of greenhouse gases, or to individual building renovation projects.

Covestro uses its expenditure on maintenance and repairs, renovations, research and development, and short-term leasing costs (denominator). Of these, the share of taxonomy-eligible OpEx must be determined (numerator). To this end, the products identified as originating from taxonomy-eligible economic activities were allocated to the corresponding OpEx. In addition, individual operating expenses from the acquisition of products from taxonomy-eligible economic activities and individual measures implemented to reduce GHG emissions and renovate buildings were taken into account. This ratio is calculated exclusively for taxonomy reporting.

Reporting of Taxonomy KPIs

The KPIs below were calculated according to the aforementioned methods:

Taxonomy KPIs¹

	Total € million	Share of taxonomy- eligible economic activities		Share of taxonomy- non-eligible economic activities	
		in %		in %	
Turnover	15,903	+32.0		+68.0	
Capital Expenditure	2,552	+8.3		+91.7	
Operating Expenditure	1,147	+25.6		+74.4	

¹ The calculation of the KPIs does not include the activities of the Resins & Functional Materials (RFM) business acquired from Koninklijke DSM N. V., Heerlen (Netherlands), due to the ongoing systems integration process. They are therefore included in the taxonomy-non-eligible share of Covestro's activities. The share attributable to RFM, if available, is included in the denominator of all of these KPIs; RFM is included in full in the denominator for turnover and CapEx. Regarding OpEx, the RFM share of the costs arising from research and development is included in the denominator. In the future, RFM activities will also be integrated completely into the analysis of taxonomy eligibility.

GRI Index

General Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 102 – General Disclosures				
102-1	Name of the organization		• Company Profile – Organization and Business Model	
102-2	Activities, brands, products, and services		• Company Profile – Organization and Business Model	
102-3	Location of headquarters		• Company Profile – Organization and Business Model	
102-4	Location of operations		• Company Profile – Production Sites and R&D Facilities	
102-5	Ownership and legal form		• Company Profile – Organization and Business Model • Covestro on the Capital Market	The Covestro Group has been legally and financially independent since September 1, 2015. Covestro AG, the parent company of the Covestro Group, is headquartered in Leverkusen (Germany), and has been listed on the stock exchange in Germany since October 6, 2015.
102-6	Markets served		• Company Profile – Business Model	
102-7	Scale of the organization		• Company Profile – Production Sites and R&D Facilities • Results of Operations, Financial Position, and Net Assets of the Covestro Group	Around the world, Covestro has about 500 temporary employees, corresponding to approximately 3.1% of our workforce. In addition, a number of people work for Covestro externally through contracts for work or service agreements. It is not possible to determine the precise number, since performance is defined via trades or in service-level agreements rather than by the number of people or the hours worked.
102-8	Information on employees and other workers	• Employees – Employees by Division	• Employees – Promoting Diversity, Equity, and Inclusion	
102-9	Supply chain	• Company Profile – Procurement		
102-10	Significant changes to the organization and its supply chain	• Company Profile – Organization and Business Model • Strategy – Group Strategy • Notes to the Consolidated Financial Statements of the Covestro Group – Changes in the Scope of Consolidation		
102-11	Precautionary Principle or approach	• Health and Safety – Product Stewardship		
102-12	External initiatives	• Social Responsibility – Social Engagement		
102-13	Membership of associations		• Sustainability – Stakeholder Dialogue	
102-14	Statement from senior decision-maker	• Foreword		
102-16	Values, principles, standards, and norms of behavior	• Management – Corporate Policies	• Management – Corporate Policies	

General Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
102-17	Mechanisms for advice and concerns about ethics	<ul style="list-style-type: none"> • Compliance – Compliance Management System • Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board 		
102-18	Governance structure	<ul style="list-style-type: none"> • Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board 	<ul style="list-style-type: none"> • Sustainability – Sustainability Management 	
102-19	Delegating authority	<ul style="list-style-type: none"> • Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board 	<ul style="list-style-type: none"> • Sustainability – Sustainability Management 	
102-20	Executive-level responsibility for economic, environmental, and social topics	<ul style="list-style-type: none"> • Company Profile – Organization and Business Model 	<ul style="list-style-type: none"> • Sustainability – Sustainability Management 	
102-22	Composition of the highest governance body and its committees	<ul style="list-style-type: none"> • Company Profile – Organization and Business Model • Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board 		
102-23	Chair of the highest governance body	<ul style="list-style-type: none"> • Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board 		
102-24	Nominating and selecting the highest governance body	<ul style="list-style-type: none"> • Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board 		
102-25	Conflicts of interest	<ul style="list-style-type: none"> • Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board • Compliance – Compliance Management System 		
102-26	Role of highest governance body in setting purpose, values, and strategy	<ul style="list-style-type: none"> • Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board 		
102-32	Highest governance body's role in sustainability reporting			The Covestro Management Report and the supplementary information 2021 were approved by the Board of Management and acknowledged by the Supervisory Board.
102-35	Remuneration policies	<ul style="list-style-type: none"> • Management – Management System • Employees – Compensating Employees Transparently and Competitively • Compensation Report 	<ul style="list-style-type: none"> • Employees – Compensating Employees Transparently and Competitively 	

General Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
102-40	List of stakeholder groups		<ul style="list-style-type: none"> • Sustainability – Stakeholder Dialogue • Employees – Compensating Employees 	
102-41	Collective bargaining agreements		Transparently and Competitively	
102-42	Identifying and selecting stakeholders		<ul style="list-style-type: none"> • Sustainability – Stakeholder Dialogue 	
102-43	Approach to stakeholder engagement	• Sustainability – Material Sustainability Topics	<ul style="list-style-type: none"> • Sustainability – Stakeholder Dialogue 	
102-44	Key topics and concerns raised	• Sustainability – Material Sustainability Topics		
102-45	Entities included in the consolidated financial statements	• Notes to the Consolidated Financial Statements of the Covestro Group – Changes in the Scope of Consolidation		
102-46	Defining report content and topic Boundaries	<ul style="list-style-type: none"> • Report Profile – Nonfinancial Reporting • Sustainability – Material Sustainability Topics • Sustainability – Material Sustainability Topics 		
102-47	List of material topics			
102-48	Restatements of information			None.
102-49	Changes in reporting			None.
102-50	Reporting period			This report covers the period from January 1 to December 31, 2021.
102-51	Date of most recent report			The previous Annual Report for fiscal 2020 and the associated GRI supplementary information were published in February 2021.
102-52	Reporting cycle			Covestro's sustainability reporting is carried out annually.
102-53	Contact point for questions regarding the report	• Publishing Information		
102-54	Claims of reporting in accordance with the GRI Standards	<ul style="list-style-type: none"> • Report Profile – Nonfinancial Reporting 		
102-56	External assurance	• Independent Auditor's Report	<ul style="list-style-type: none"> • Report by the independent auditor on an audit to obtain limited assurance with regard to sustainability information. 	

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 200 – Economic topics				
GRI 201 – Economic Performance (2016)				
103-1,2,3	Management Approach		<ul style="list-style-type: none"> • Strategy – Group Strategy • Management – Management System 	
201-1	Direct economic value generated and distributed		<ul style="list-style-type: none"> • Consolidated Financial Statements and Notes 	
GRI 204 – Procurement Practices (2016)				
103-1,2,3	Management Approach		<ul style="list-style-type: none"> • Company Profile – Procurement • Sustainability – Material Sustainability Topics • Sustainability in Sourcing • Social Responsibility – Human Rights • Opportunities and Risks Report – Opportunities and Risks 	
204-1	Proportion of spending on local suppliers		<ul style="list-style-type: none"> • Sustainability in Sourcing – Procurement of Key Products 	Since our locations in Germany, the United States and China cover most of our procurement volume, the sites located in these countries are referred to as main sites within the meaning of the GRI terminology. Local procurement is regarded as purchasing from suppliers located in the same country as the legal entity they supply.
GRI 205 – Anti-corruption (2016)				
103-1,2,3	Management Approach		<ul style="list-style-type: none"> • Sustainability – Material Sustainability Topics • Compliance – Compliance Management System • Opportunities and Risks Report – Group-wide Opportunities and Risk Management System 	<ul style="list-style-type: none"> • Management – Corporate Policies
205-1	Operations assessed for risks related to corruption		<ul style="list-style-type: none"> • Compliance – Compliance Management System 	In 2020 a risk analysis was conducted for every country/every company. Risk analysis was not updated in the reporting period. Definition of location of operations as a legal entity.
GRI 206 – Anti-competitive Behavior (2016)				
103-1,2,3	Management Approach		<ul style="list-style-type: none"> • Opportunities and Risks Report – Opportunities and Risks • Compliance – Compliance Management System 	<ul style="list-style-type: none"> • Management – Corporate Policies
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices			No actions were reported through internal reporting in fiscal 2021.

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 207 – Tax (2019)				
103-1,2,3	Management Approach	• Compliance – Tax Compliance		
207-1	Approach to tax	• Compliance – Tax Compliance		
207-2	Tax governance, control, and risk management	• Compliance – Tax Compliance • Opportunities and Risks Report – Group-wide Opportunities and Risk Management System		
207-3	Stakeholder engagement and management of concerns related to tax	• Compliance – Compliance Management System • Compliance – Tax Compliance		
207-4	Country-by-country reporting			A country-by-country report is not currently provided.
GRI 300 – Environmental topics				
GRI 302 – Energy (2016)				
103-1,2,3	Management Approach	• Sustainability – Material Sustainability Topics • Circular Economy and Climate Neutrality – Climate Neutrality • Opportunities and Risks Report – Opportunities and Risks	• Management – Corporate Policies • Circular Economy and Climate Neutrality – Climate Neutrality	
302-1	Energy consumption within the organization	• Circular Economy and Climate Neutrality		Information pertaining to the share of renewable energy was not included in this report.
302-3	Energy intensity	• Circular Economy and Climate Neutrality		
302-4	Reduction of energy consumption	• Circular Economy and Climate Neutrality	• Circular Economy and Climate Neutrality – Climate Neutrality	In 2005, Covestro began to introduce a certified energy management system. This requires that we compare our performance with a designated base year, and that year was 2005.
GRI 303 – Water (2018)				
103-1,2,3	Management Approach	• Sustainability – Material Sustainability Topics • Environmental Impact of Own Operations – Water and Wastewater	• Environmental Impact of Own Operations – Water Usage	
303-1	Interactions with water as a shared resource	• Environmental Impact of Own Operations – Water and Wastewater	• Environmental Impact of Own Operations – Water Usage	
303-2	Management of water discharge-related impacts	• Environmental Impact of Own Operations – Water and Wastewater	• Environmental Impact of Own Operations – Water Usage	The standards to be applied are oriented to local laws. Water withdrawal is measured in m ³ (cubic meters) since this is the more common approach to measurement. Here, 1 megaliter (ML) corresponds to 1,000 m ³ . Usage of other than fresh water <1,000 mg TDS/l: Pursuant to ISO 14046, Covestro uses no water from sea water sources, thus there is no figure for this in the water balance. At some facilities, it is possible that brackish water >1,000 mg TDS/l is used as cooling water. These amounts are included in the water balance and not reported separately. This water can be returned to the water cycle without further treatment in line with the relevant official permits.
303-3	Water withdrawal	• Environmental Impact of Own Operations – Water and Wastewater	• Environmental Impact of Own Operations – Water Usage	

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 305 – Emissions (2016)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Sustainability – Material Sustainability Topics • Circular Economy and Climate Neutrality – Climate Neutrality • Opportunities and Risks Report – Opportunities and Risks 	<ul style="list-style-type: none"> • Circular Economy and Climate Neutrality – Climate Neutrality 	
305-1	Direct (Scope 1) GHG emissions	<ul style="list-style-type: none"> • Circular Economy and Climate Neutrality – Climate Neutrality 		Biogenic CO ₂ emissions are not reported because they are irrelevant.
305-2	Energy indirect (Scope 2) GHG emissions	<ul style="list-style-type: none"> • Circular Economy and Climate Neutrality – Climate Neutrality 		
305-3	Other indirect (Scope 3) GHG emissions		<ul style="list-style-type: none"> • Circular Economy and Climate Neutrality – Climate Neutrality 	<p>Disclosure as CO₂ equivalent of specific GHG. Emissions of sulfur hexafluoride (SF6) have been recorded. However, because our chemical production processes do not currently cause any SF6 emissions and because Covestro does not use SF6, such emissions do not appear in our reporting.</p>
305-4	GHG emissions intensity	<ul style="list-style-type: none"> • Circular Economy and Climate Neutrality – Climate Neutrality 		<p>Greenhouse gas emissions are reported separately for Scopes 1 and 2. When considering GHG reductions, the specific greenhouse gas emissions are calculated using the total emissions for Scopes 1 and 2 because otherwise any shifts between the categories would lessen the informative value of the results.</p>
305-5	Reduction of GHG emissions	<ul style="list-style-type: none"> • Circular Economy and Climate Neutrality – Climate Neutrality 		<p>Reporting focuses on significant air emissions; persistent organic pollutants (POPs) and hazardous organic pollutants (HAPs) are not reported.</p>
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions		<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Air Quality 	<p>Air emissions are generally measured directly at the source of the emission or are calculated from the stoichiometric determination of the formula mass.</p>
GRI 306 – Waste (2020)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Sustainability – Material Sustainability Topics • Circular Economy and Climate Neutrality – Climate Neutrality • Environmental Impact of Own Operations – Waste 	<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Waste and Recycling 	
306-1	Waste generation and significant waste-related impacts	<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Waste 	<ul style="list-style-type: none"> • Circular Economy and Climate Neutrality – Climate Neutrality • Environmental Impact of Own Operations – Waste 	<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Waste and Recycling
306-2	Management of significant waste-related impacts	<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Waste 	<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Waste and Recycling 	<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Waste and Recycling
306-3	Waste generated		<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Waste and Recycling 	
306-5	Waste diverted from disposal		<ul style="list-style-type: none"> • Environmental Impact of Own Operations – Waste and Recycling 	The distinction of hazardous and non-hazardous waste is only drawn for landfill waste; no differentiation is made for other disposal methods.

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 307 – Environmental Compliance (2016)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Environmental Impact of Own Operations • Opportunities and Risks Report – Opportunities and Risks • Compliance – Compliance Management System 		
307-1	Non-compliance with environmental laws and regulations			In fiscal 2021, no significant administrative or court-ordered sanctions (fines, nonmonetary sanctions) for noncompliance with environmental laws and regulations were reported through internal reporting.
GRI 308 – Supplier Environmental Assessment				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Sustainability in the Supply Chain • Opportunities and Risks Report – Opportunities and Risks 		
308-2	Negative environmental impacts in the supply chain and actions taken	<ul style="list-style-type: none"> • Sustainability in the Supply Chain – Detailed Results of the Supplier Evaluations 		
GRI 400 – Social topics				
GRI 401 – Employment (2016)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Management – Corporate Policies • Employees – Human Resources Profile and Focus, Winning Qualified Employees and Promoting Covestro's Employer Brand • Opportunities and Risks Report – Opportunities and Risks 		
401-1	New employee hires and employee turnover	<ul style="list-style-type: none"> • Employees – Winning Qualified Employees and Promoting Covestro's Employer Brand 		In fiscal 2021, the gender distribution of new hires and the attrition rate was broken down into male and female, as the company was not aware of any employees with other gender identities. Reference is made in the footnote to the small number of employees who did not state their gender. If this should change, the tables will be adjusted accordingly in future.
GRI 403 – Occupational Health and Safety (2018)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Management – Integrated Management System for Health, Safety, Environment, Energy, and Quality • Employees – Designing Healthy Working Conditions and Work Models • Health and Safety – Occupational Health and Safety • Opportunities and Risks Report – Opportunities and Risks 		

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
403-1	Occupational health and safety management system	<ul style="list-style-type: none"> • Management – Integrated Management System for Health, Safety, Environment, Energy, and Quality • Health and Safety – Occupational Health and Safety; Corporate Security • Health and Safety – Corporate Security 	<ul style="list-style-type: none"> • Management – Integrated Management System for Health, Safety, Environment, Energy, and Quality • Health and Safety – Corporate Security 	<p>A list of the legal requirements has been dispensed with. The integrated management system for occupational health and safety covers all our employees across the Group and in some cases also our contractors, regardless of the type of work environment or activity performed.</p>
403-2	Hazard identification, risk assessment, and incident investigation	<ul style="list-style-type: none"> • Health and Safety – Occupational Health and Safety; Corporate Security • Compliance – Compliance Management System 	• Health and Safety – Corporate Security	<p>Every employee, contractor or – as appropriate – visitor must comply with the applicable occupational safety procedures, rules, and relevant protective measures. Employees are authorized to withdraw from work situations that seem to them to represent a direct and serious threat to their lives or health. They are obligated to report such situations to their supervisors immediately. Employees may not be sanctioned for such actions.</p>
403-3	Occupational health services	<ul style="list-style-type: none"> • Employees – Designing Healthy Working Conditions and Work Models 		<p>Depending on site-specific local circumstances, there are dedicated occupational health staff or occupational health services are provided in conjunction with external parties. A country-specific description of the functions of the occupational health services has been dispensed with.</p>
403-4	Worker participation, consultation, and communication on occupational health and safety	• Health and Safety		<p>Depending on legal requirements, some sites have formal employer-employee committees for occupational health and safety that hold regular meetings. In Germany, for instance, this is the occupational safety and health committee as legally required by Section 11 of the Act on Occupational Physicians, Safety Engineers and Other Occupational Safety Specialists (AsiG). All sites are networked in corresponding regional HSE communities. A country-specific list and a description of the committees has been dispensed with.</p>
403-5	Worker training on occupational health and safety	<ul style="list-style-type: none"> • Health and Safety • Employees – Designing Healthy Working Conditions and Work Models 		<p>Our employees receive the applicable statutorily required training as well as further training that exceeds these requirements depending on the individual circumstances at our sites. Our contractors receive site-specific safety instructions.</p>
403-6	Promotion of worker health	<ul style="list-style-type: none"> • Health and Safety – Occupational Health and Safety 		<p>Voluntary services for the promotion and maintenance of health are made available only to Covestro employees.</p>
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<ul style="list-style-type: none"> • Management – Integrated Management System for Health, Safety, Environment, Energy, and Quality • Health and Safety • Sustainability in Sourcing 	• Health and Safety – Corporate Security	
403-9	Work-related injuries	<ul style="list-style-type: none"> • Health and Safety – Occupational Health and Safety; Corporate Security 	• Health and Safety – Corporate Security	<p>We record the most important types and frequency of work-related injuries for all employee groups according to the ASTM standard E2920-14, "Severe Incidents and Fatalities" (A. deaths, B. life-changing/life-altering cases, C. other).</p>

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 404 – Training and Education (2016)				
103-1,2,3	Management Approach	• Management – Corporate Policies • Employees – Promoting and Developing Employees • Opportunities and Risks Report – Opportunities and Risks		
404-2	Programs for upgrading employee skills and transition assistance programs	• Employees – Promoting and Developing Employees	• Employees – Compensating Employees Transparently and Competitively	
GRI 405 – Diversity and Equal Opportunity (2016)				
103-1,2,3	Management Approach	• Sustainability – Material Sustainability Topics • Employees – Promoting Diversity, Equity, and Inclusion • Opportunities and Risks Report – Opportunities and Risks		
405-1	Diversity of governance bodies and employees	• Declaration on Corporate Governance – Composition, duties and activities of the Board of Management and Supervisory Board	• Employees – Promoting Diversity, Equity, and Inclusion	At the end of the year, the Supervisory Board consisted of six women (50%) and six men (50%). The age structure is as follows: 0% are 30-50 years old, and 100% are over 50. Membership in a minority is not recorded for legal reasons. In fiscal 2021, the gender distribution of employees was broken down into male and female, as the company was not aware of any employees with other gender identities. Reference is made in the footnote to the small number of employees who did not state their gender. If this should change, the tables will be adjusted accordingly in future.
GRI 406 – Non-discrimination (2016)				
103-1,2,3	Management Approach	• Sustainability – Material Sustainability Topics • Employees – Promoting Diversity, Equity, and Inclusion • Opportunities and Risks Report – Opportunities and Risks		
406-1	Incidents of discrimination and corrective actions taken			For confidentiality reasons, we do not disclose the type and scope of the incidents reported.
GRI 407 – Freedom of Association and Collective Bargaining				
103-1,2,3	Management Approach	• Sustainability in the Supply Chain • Social Responsibility – Human Rights • Compliance – Compliance Management System		
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	• Sustainability in the Supply Chain – Supplier Evaluation Results	• Sustainability in the Supply Chain – Detailed Results of the Supplier Evaluations	In fiscal 2021, no significant cases were reported using formal grievance mechanisms. There was no high risk for the sites in the year 2021, as the local heads of Human Resources and the local managing directors are required by internal rules to maintain a regular exchange of information with unions and employee representatives.

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 414 – Supplier Social Assessment (2016)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Sustainability in the Supply Chain • Opportunities and Risks Report – Opportunities and Risks 		
414-2	Negative social impacts in the supply chain and actions taken	<ul style="list-style-type: none"> • Sustainability in the Supply Chain – Supplier Evaluation Results 	<ul style="list-style-type: none"> • Sustainability in the Supply Chain – Detailed Results of the Supplier Evaluations 	
GRI 415 – Public Policy (2016)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Sustainability – Material Sustainability Topics 	<ul style="list-style-type: none"> • Management – Corporate Policies 	
415-1	Political contributions		<ul style="list-style-type: none"> • Management – Corporate Policies 	
GRI 416 – Customer Health and Safety (2016)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Sustainability – Material Sustainability Topics • Management – Integrated Management System for Health, Safety, Environment, Energy, and Quality • Health and Safety – Product Stewardship • Opportunities and Risks Report – Opportunities and Risks • Compliance – Compliance Management System 	<ul style="list-style-type: none"> • Management – Integrated Management System for Health, Safety, Environment, Energy, and Quality 	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	<ul style="list-style-type: none"> • Health and Safety – Product Stewardship 		No significant incidents were reported through internal reporting in fiscal 2021.
GRI 417 – Marketing and Labeling (2016)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Company Profile – Marketing and Sales • Sustainability – Material Sustainability Topics 		
417-1	Requirements for product and service information and labeling	<ul style="list-style-type: none"> • Management – Integrated Management System for Health, Safety, Environment, Energy, and Quality • Health and Safety – Product Stewardship • Opportunities and Risks Report – Opportunities and Risks • Compliance – Compliance Management System 	<ul style="list-style-type: none"> • Management – Integrated Management System for Health, Safety, Environment, Energy, and Quality 	
417-2	Incidents of non-compliance concerning product and service information and labeling	<ul style="list-style-type: none"> • Health and Safety – Product Stewardship 		No significant incidents were reported through internal reporting in fiscal 2021.

Specific Standard Disclosures

Disclosure number	Disclosure title	Section in Annual Report	Section in supplementary information on sustainability	Explanation/omission
GRI 419 – Socioeconomic Compliance (2016)				
103-1,2,3	Management Approach	<ul style="list-style-type: none"> • Sustainability – Material Sustainability Topics • Opportunities and Risks Report – Opportunities and Risks • Compliance – Compliance Management System 	<ul style="list-style-type: none"> • Management – Corporate Policies 	In fiscal 2021, no significant administrative or court-ordered sanctions (fines, nonmonetary sanctions) for noncompliance with laws and regulations with respect to the provision and use of products and services were reported through internal reporting.
419-1	Non-compliance with laws and regulations in the social and economic area			

CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED FINANCIAL STATEMENTS OF COVESTRO AG

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COVESTRO GROUP CONSOLIDATED INCOME STATEMENT

	Note	2020	2021
		€ million	€ million
Sales	6	10,706	15,903
Cost of goods sold		(8,207)	(11,475)
Gross profit		2,499	4,428
Selling expenses		(1,195)	(1,428)
Research and development expenses		(262)	(341)
General administration expenses		(310)	(415)
Other operating income	7	63	99
Other operating expenses	8	(99)	(81)
EBIT¹		696	2,262
Equity-method loss		(13)	(15)
Result from other affiliated companies		1	2
Interest income		26	38
Interest expense		(73)	(79)
Other financial result		(32)	(23)
Financial result	10	(91)	(77)
Income before income taxes		605	2,185
Income taxes	11	(151)	(566)
Income after income taxes		454	1,619
of which attributable to noncontrolling interest		(5)	3
of which attributable to Covestro AG shareholders (net income)		459	1,616
		€	€
Basic earnings per share²	12	2.48	8.37
Diluted earnings per share²	12	2.48	8.37

¹ EBIT: income after income taxes plus financial result and income tax.

² Earnings per share: According to IAS 33 (Earnings per Share), earnings per share comprise net income divided by the weighted average number of outstanding no-par voting shares of Covestro AG. The calculation for fiscal 2021 was based on 193,165,396 no-par value shares (previous year: 184,912,207). For more information, see note 12 "Earnings per Share."

COVESTRO GROUP CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Note	2020	2021
		€ million	€ million
Income after income taxes		454	1,619
Remeasurements of the net defined benefit liability for post-employment benefit plans	20	(130)	510
Income taxes	11	48	(161)
Other comprehensive income from remeasurements of the net defined benefit liability for post-employment benefit plans		(82)	349
Changes in fair values of equity instruments	24	1	13
Income taxes	11	–	(4)
Other comprehensive income from equity instruments		1	9
Other comprehensive income that will not be reclassified subsequently to profit or loss		(81)	358
Exchange differences of foreign operations		(210)	367
Reclassified to profit or loss		–	–
Other comprehensive income from exchange differences		(210)	367
Other comprehensive income that may be reclassified subsequently to profit or loss		(210)	367
Total other comprehensive income		(291)	725
of which attributable to noncontrolling interest		(3)	2
of which attributable to Covestro AG shareholders		(288)	723
Total comprehensive income		163	2,344
of which attributable to noncontrolling interest		(8)	5
of which attributable to Covestro AG shareholders		171	2,339

COVESTRO GROUP CONSOLIDATED STATEMENT OF FINANCIAL POSITION

	Note	Dec. 31, 2020	Dec. 31, 2021
		€ million	€ million
Noncurrent assets			
Goodwill	13	255	757
Other intangible assets	13	109	706
Property, plant and equipment	14	5,175	6,032
Investments accounted for using the equity method	15	173	172
Other financial assets	16	32	49
Other receivables	18	65	76
Deferred taxes	11	925	818
		6,734	8,610
Current assets			
Inventories	17	1,663	2,914
Trade accounts receivable		1,593	2,343
Other financial assets	16	1,144	493
Other receivables	18	295	434
Claims for income tax refunds		55	128
Cash and cash equivalents		1,404	649
Assets held for sale		36	–
		6,190	6,961
Total assets	19	12,924	15,571
Equity			
Capital stock of Covestro AG		193	193
Capital reserves of Covestro AG		3,925	3,927
Other reserves		1,489	3,576
Equity attributable to Covestro AG shareholders		5,607	7,696
Equity attributable to noncontrolling interest		37	66
		5,644	7,762
Noncurrent liabilities			
Provisions for pensions and other post-employment benefits	20	2,123	1,199
Other provisions	21	218	223
Financial liabilities	22	2,277	2,349
Income tax liabilities	11	88	98
Other liabilities	23	31	34
Deferred taxes	11	179	300
		4,916	4,203
Current liabilities			
Other provisions	21	155	637
Financial liabilities	22	622	192
Trade accounts payable		1,241	2,214
Income tax liabilities	11	74	239
Other liabilities	23	262	324
Liabilities directly related to assets held for sale		10	–
		2,364	3,606
Total equity and liabilities		12,924	15,571

COVESTRO GROUP CONSOLIDATED STATEMENT OF CASH FLOWS

	Note	2020	2021
		€ million	€ million
Income after income taxes		454	1,619
Income taxes		151	566
Financial result		91	77
Income taxes paid		(155)	(546)
Depreciation, amortization, impairment losses and impairment loss reversals		776	823
Change in pension provisions		25	31
(Gains)/losses on retirements of noncurrent assets		8	(3)
Decrease/(increase) in inventories		160	(987)
Decrease/(increase) in trade accounts receivable		(106)	(462)
(Decrease)/increase in trade accounts payable		(154)	722
Change in other working capital/other noncash items		(16)	353
Cash flows from operating activities	27.1	1,234	2,193
Cash outflows for additions to property, plant, equipment and intangible assets		(704)	(764)
Cash inflows from sales of property, plant, equipment and other assets		6	11
Cash inflows from divestments less divested cash		(3)	12
Cash outflows for noncurrent financial assets		(16)	(34)
Cash inflows from noncurrent financial assets		7	25
Cash outflows for acquisitions less acquired cash		–	(1,469)
Interest and dividends received		30	36
Cash outflows for other current financial assets/ Cash inflows from other current financial assets		(1,089)	188
Cash flows from investing activities	27.2	(1,769)	(1,995)
Capital contributions		444	–
Reissuance of treasury shares		4	2
Dividend payments and withholding tax on dividends		(221)	(262)
Issuances of debt		1,775	51
Retirements of debt		(719)	(675)
Interest paid		(79)	(81)
Cash flows from financing activities	27.3	1,204	(965)
Change in cash and cash equivalents due to business activities		669	(767)
Cash and cash equivalents at beginning of year		748	1,404
Change in cash and cash equivalents due to changes in scope of consolidation		1	–
Change in cash and cash equivalents due to exchange rate movements		(14)	12
Cash and cash equivalents at end of year		1,404	649

COVESTRO GROUP CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Capital stock of Covestro AG € million	Capital reserves of Covestro AG € million	Retained earnings incl. total income € million	Accumulated other comprehensive income € million	Equity attributable to Covestro AG shareholders € million	Equity attributable to noncontrolling interest € million	Equity € million
Dec. 31, 2019	183	3,487	1,122	415	5,207	47	5,254
Capital increase ¹	10	434			444		444
Issuance of treasury shares	–	5			5		5
Dividend payments			(219)		(219)	(2)	(221)
Other changes ²		(1)			(1)	–	(1)
Income after income taxes			459		459	(5)	454
Other comprehensive income			(82)	(206)	(288)	(3)	(291)
Total comprehensive income			377	(206)	171	(8)	163
Dec. 31, 2020	193	3,925	1,280	209	5,607	37	5,644
of which treasury shares	–	(2)			(2)	–	(2)
Dec. 31, 2020	193	3,925	1,280	209	5,607	37	5,644
Issuance of treasury shares	–	2			2		2
Dividend payments			(251)		(251)	(11)	(262)
Other changes ³		–	(1)		(1)	35	34
Income after income taxes			1,616		1,616	3	1,619
Other comprehensive income			358	365	723	2	725
Total comprehensive income			1,974	365	2,339	5	2,344
Dec. 31, 2021	193	3,927	3,002	574	7,696	66	7,762
of which treasury shares	–	–			–	–	–

¹ After deduction of the costs of raising equity.² Other changes in fiscal 2020 include the difference between the historical cost of treasury shares and the issue price in November 2020.³ Other changes in fiscal 2021 include the dilution of the Group's share resulting from a share deal due to additional noncontrolling interests.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS OF THE COVESTRO GROUP

Principles and Methods

1. General Information

Covestro AG (registered at the district trade register, or Amtsgericht, for Cologne, number: HRB 85281) is a stock exchange-listed corporation headquartered at Kaiser-Wilhelm-Allee 60, 51373 Leverkusen (Germany), (Covestro AG). The consolidated financial statements of Covestro AG as of December 31, 2021, cover Covestro AG and its subsidiaries, joint arrangements and associated companies. They have been prepared according to the International Financial Reporting Standards (IFRSs) of the International Accounting Standards Board (IASB), London (United Kingdom), as endorsed by the European Union (EU) and in effect at the reporting date, the Interpretations (IFRICs) of the IFRS Interpretations Committee (IFRS IC) and the Interpretations published by the Standing Interpretations Committee (SIC), as well as the additional requirements of German commercial law pursuant to Section 315e (1) of the German Commercial Code (HGB) for the exempting IFRS consolidated financial statements.

The declaration pertaining to the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG) has been issued and made available to shareholders.

If certain items in the income statement, statement of comprehensive income, statement of financial position, statement of cash flows and statement of changes in equity of the Covestro Group are condensed for the sake of clarity, this is explained in the notes. The income statement has been prepared using the cost-of-sales method. Assets and liabilities are classified by maturity. They are classified as current if they mature or are intended for sale within one year or within the normal business cycle of the Covestro Group. Trade accounts receivable and payable, inventories, and assets held for sale are consistently presented as current. Deferred tax assets, deferred tax liabilities and pension provisions are consistently presented as noncurrent.

The consolidated financial statements are drawn up in euros. Amounts are stated in millions of euros (€ million) unless otherwise noted.

Exchange Rates

In the reporting period, the following exchange rates were used for the major currencies of relevance from the Covestro Group's perspective:

Average rates for major currencies

€1/		Average rates	
		2020	2021
BRL	Brazil	5.80	6.37
CNY	China	7.87	7.63
HKD	Hong Kong ¹	8.84	9.19
INR	India	84.43	87.43
JPY	Japan	121.72	129.82
MXN	Mexico	24.35	23.98
USD	United States	1.14	1.18

Closing rates for major currencies

€1/		Closing rates	
		2020	2021
BRL	Brazil	6.37	6.31
CNY	China	7.98	7.20
HKD	Hong Kong ¹	9.51	8.83
INR	India	89.66	84.23
JPY	Japan	126.49	130.38
MXN	Mexico	24.42	23.14
USD	United States	1.23	1.13

¹ Special Administration Region (China)

2. Effects of New Financial Reporting Standards

2.1 Financial Reporting Standards Applied for the First Time in the Reporting Period

IFRS pronouncement (published on)	Title	Effective for annual periods beginning on or after
Amendments to IFRS 4 (June 25, 2020)	Extension of the Temporary Exemption from Applying IFRS 9	January 1, 2021
Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (August 27, 2020)	Interest Rate Benchmark Reform – Phase 2	January 1, 2021
Amendments to IFRS 16 (March 31, 2021)	Covid 19-Related Rent Concessions	April 1, 2021

Initial application of the standards listed in the table had no or no material impact on the presentation of the net assets, financial position and results of operations of the Covestro Group.

2.2 Published Financial Reporting Standards that have not yet been Applied

The IASB and the IFRS IC have issued the following standards, amendments to standards, and interpretations whose application for fiscal 2021 is not yet mandatory.

IFRS pronouncement (published on)	Title	Effective for annual periods beginning on or after
Endorsed by the EU		
Amendments to IFRS 3 (May 14, 2020)	Reference to the Conceptual Framework	January 1, 2022
Amendments to IAS 16 (May 14, 2020)	Property, Plant and Equipment – Proceeds before Intended Use	January 1, 2022
Amendments to IAS 37 (May 14, 2020)	Onerous Contracts – Cost of Fulfilling a Contract	January 1, 2022
Annual Improvements to IFRSs (May 14, 2020)	2018–2020 Cycle	January 1, 2022
IFRS 17 (May 18, 2017)	Insurance Contracts	January 1, 2023
Amendments to IFRS 17 (June 25, 2020)	Amendments to IFRS 17 – Insurance Contracts	January 1, 2023

The application of the following other standards, amendments to standards, and interpretations issued by the IASB and IFRS IC is conditional upon their endorsement by the European Union (EU). The effective date for the standards is assumed to be the effective date designated by the IASB.

IFRS pronouncement (published on)	Title	Effective for annual periods beginning on or after
Not yet endorsed by the EU		
Amendments to IAS 1 (January 23, 2020, and July 15, 2020)	Classification of Liabilities as Current or Non-current and Classification of Liabilities as Current or Non-current – Deferral of Effective Date	January 1, 2023
Amendments to IAS 1 and the practice statement (February 12, 2021)	Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)	January 1, 2023
Amendments to IAS 8 (February 12, 2021)	Definition of Accounting Estimates (Amendments to IAS 8)	January 1, 2023
Amendments to IAS 12 (May 7, 2021)	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	January 1, 2023
Amendments to IFRS 17 (December 9, 2021)	Initial Application of IFRS 17 and IFRS 9 – Comparative Information	January 1, 2023

The effects of the initial application of the financial reporting standards described below are currently being reviewed. At the time the financial statements were prepared, no material impact on the presentation of the net assets, financial position, and results of operations of the Covestro Group was expected. According to the analysis as it stands currently, initial application of the other standards listed in the table will have no effect on the presentation of the net assets, financial position, and results of operations of the Covestro Group.

On January 23, 2020, the IASB published "Classification of Liabilities as Current or Non-current," an amendment to IAS 1 (Presentation of Financial Statements) that clarifies when a liability with an uncertain settlement date is classified as current or noncurrent in the statement of financial position. Due to the added pressure on companies from the coronavirus pandemic and the possible renegotiation of loans, the IASB issued an amendment to this publication on July 15, 2020, deferring the effective date by one year to January 1, 2023 (previously: January 1, 2022). The amendment must be applied retrospectively.

On February 12, 2021, the IASB issued additional amendments to IAS 1, "Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)," along with an amendment to the relevant practice statement. These amendments require all companies to disclose those material accounting policies in their notes to the consolidated financial statements that are relevant for understanding the financial statements and the underlying transactions ("material accounting policies"), for example in the case of (de facto) accounting options for material individual items in the group, rather than their significant accounting policies in general. Accounting policies are significant, for example, when they relate to high-value positions such as pension provisions, but the standard on which they are based specifies clear accounting policies that apply to every entity. The amendments to IFRS Practice Statement 2 provide guidelines for the application of this materiality concept.

Also on February 12, 2021, the IASB issued amendments to IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors) under the title "Definition of Accounting Estimates (Amendments to IAS 8)." These amendments are intended to clarify the distinction between changes in accounting policies and changes in accounting estimates. This distinction is generally relevant since changes in accounting policies are, subject to transitional provisions, always applied retrospectively to consolidated financial statements, while changes in accounting estimates are only applied prospectively from the date of the change in estimates.

On May 7, 2021, the IASB issued "Deferred Tax related to Assets and Liabilities arising from a Single Transaction," which contains amendments to IAS 12 (Income Taxes). This amendment clarifies that deferred tax assets and liabilities have to be recognized when a transaction gives rise to equal amounts of deductible and taxable temporary differences at the same time. The initial recognition exemption providing that no deferred tax assets or liabilities are to be recognized at the acquisition date of an asset or liability is no longer applicable to such transactions. The amendment has no effect on the presentation of the net assets, financial position, and results of operations of the Covestro Group, since the exemption is not applied at this time.

3. Accounting Policies and Valuation Principles

Covestro's consolidated financial statements are based on the principle of the historical cost of acquisition or production. Exceptions are items measured at fair value, such as certain financial assets, assets held for sale, plan assets, and reportable derivatives.

In preparing the consolidated financial statements, Covestro management has to make assumptions and estimates to a certain extent that may substantially impact the presentation of the Covestro Group's net assets, financial position, and results of operations and could deviate from the actual results. Such assumptions, estimates, and the exercise of discretion mainly relate to the following areas: defining the useful life of noncurrent assets, calculating the discounted cash flows used for impairment testing to be conducted at least annually, purchase price allocations, accounting for income taxes, the assessment of the amount of deferred tax assets recoverable in future periods as well as the recognition of provisions, (e.g., for litigation-related expenses, pensions and other employee benefits, other taxes, environmental compliance and remediation costs, and product liability). Covestro continually monitors changes in legislation connected with climate change. Currently, no laws have been passed that directly or indirectly have a material impact on the notes to the consolidated financial statements. The Group will adjust the basic principles underlying the assumptions made as necessary. In addition, Covestro's management must decide which information is relevant for readers of the IFRS consolidated financial statements and should be included in the notes. Information about exercising discretion in the application of accounting policies that most significantly affect the amounts reported in the consolidated financial statements, and about estimates and assumptions, is disclosed in the following notes.

Consolidation

As of December 31, 2021, the direct and indirect subsidiaries of Covestro AG were fully consolidated in accordance with the principles of IFRS 10 (Consolidated Financial Statements). In addition, joint arrangements as defined by IFRS 11 (Joint Arrangements) were classified as joint operations and consolidated proportionately in the consolidated financial statements, or classified as joint ventures and accounted for in the same way as associated companies using the equity method in accordance with IAS 28 (Investments in Associates and Joint Ventures).

 See note 5.1 "Scope of consolidation and investments."

Joint Operations and Joint Ventures

Joint operations and joint ventures are based on joint arrangements. A joint arrangement is deemed to exist if Covestro AG, through a contractual agreement, indirectly or directly jointly controls an activity together with one or more third parties. Joint control is only deemed to exist if decisions regarding the relevant activities require the unanimous consent of the parties sharing control.

A joint operation is a joint arrangement whereby the parties that have joint control over the arrangement have rights to the assets attributable to the arrangement and obligations with regard to the liabilities attributable to the arrangement. The Covestro Group recognizes the share of assets, liabilities, revenues and expenses in accordance with its rights and obligations in a joint operation.

A joint venture is a joint arrangement whereby the parties that have joint control over the arrangement have rights to the net assets of the arrangement. Joint ventures are accounted for using the equity method.

Associates over which Covestro AG is able to exercise significant influence, directly or indirectly, generally through an ownership interest between 20% and 50%, are also accounted for using the equity method.

Change in Ownership Interest

A change in the interest in a subsidiary without acquiring or relinquishing control is accounted for as an equity transaction.

If the Group loses control over a subsidiary, then the associated assets (including proportional goodwill), liabilities, noncontrolling interests, and other equity items are derecognized. Any resulting gain or loss is recognized in the income statement, and any equity interest retained is measured at fair value on this date and recognized. In the event of joint control, the aforementioned provisions would be applied to joint operations and joint ventures. If the Group maintains significant influence, then as a rule, the equity interest in the associated company continues to be accounted for using the equity method.

Currency Translation

The financial statements of the individual companies for inclusion in the consolidated financial statements are prepared in their respective functional currencies. The majority of consolidated companies carry out their activities autonomously from a financial, economic and organizational point of view, and their functional currencies are therefore the respective local currencies.

In the separate financial statements of the foreign companies, receivables and liabilities in currencies other than the respective functional currency are translated at closing rates. Related exchange differences are recognized in profit or loss and recorded as exchange gains or losses under other financial result.

In the consolidated financial statements, the assets and liabilities of Covestro companies outside the eurozone are translated into euros at closing rates at the start and end of the reporting period, while income and expense items and cash flows are translated into euros at average rates. Equity items are translated at historical rates. Foreign currency differences resulting from the translation of the financial statements of foreign companies are recognized directly in equity in the currency translation reserve.

Sales and Other Operating Income

All revenues from customer contracts, such as the selling of products or rendering of services, or from licensing agreements, are recognized as sales. Other operational revenues are recognized as other operating income.

In principle, the amount of consideration from a contract with a customer to which Covestro expects to be entitled in exchange for the transfer of goods or services is recognized as sales when the customer obtains control of the corresponding goods or services.

Sales are generated primarily from the sale of chemical products. In most cases, control over these products is transferred to the customer at a point in time.

Depending on the contractual agreements made and transportation clauses agreed upon with the customer, in the majority of cases control is transferred to the customer upon delivery at the place of destination, furthermore at the point in time of collection by the customer or upon handover to the freight carrier. In some cases, sales are made through consignment warehouses in which customers primarily obtain control over the delivered goods upon delivery to the consignment warehouse.

In principle, control is considered to be transferred when the customer can direct the use of the product to be delivered and obtain substantially all of the remaining benefits from the product, while this is no longer possible for Covestro.

Determining the point in time of the transfer of control involves considering additional indicators. In particular, it is considered at which point in time Covestro has a present right to payment for the product and when physical possession of the product or, in a broader sense, the possibility of sole access to the product, is transferred to the customer. Depending on the transportation clauses, the possibility of sole access to the product may be transferred even prior to arrival or physical handover of the product to the customer. Furthermore, the point in time when the legal title passes to the customer is also considered to the extent that it constitutes more than a protective right. The point in time when the significant rewards and risks of ownership of a product are transferred to the customer is usually linked closely with the aforementioned indicators and is therefore considered with

these. Based on experience, it is assumed that products sold fulfill the agreed-upon specifications, thus acceptance by the customer is an indicator that does not generally affect the point in time at which control is transferred.

As a result, depending on the contractual agreements made and transportation clauses agreed upon with the customer, the point in time of the transfer of control is determined.

In the case of products sold through a consignment warehouse, the customer generally obtains physical possession of this product upon delivery to the consignment warehouse. In addition, the right to payment for the delivered goods generally arises upon delivery. To the extent that the other three indicators do not lead to a contrary conclusion, control of the products in the case of a sale through a consignment warehouse transfers to the customer upon delivery to the consignment warehouse. The corresponding sales are therefore realized at the time of delivery.

Certain products are only sold to one customer. Some of these customer-specific products have no alternative use for Covestro. Insofar as Covestro has an enforceable right to payment for performance completed to date, sales are recognized on the basis of progress towards complete satisfaction of the performance obligation. As a rule, control over an individual customer-specific product is considered to be transferred when the generally short production process is completed successfully and the product has been tested to confirm that the agreed-upon specifications have been met.

To the extent that, for certain types of performance obligations that are satisfied over time, there is a right to consideration in an amount that corresponds directly with the value of the performance provided by Covestro to date, revenue will normally be realized in the amount to which Covestro has a right to invoice.

Invoices are usually payable in 0 to 90 days. Contracts may contain early payment discounts or rebates. Rebates are generally retroactively granted sales- or volume-dependent rebates based on the sales or volume of a period customarily spanning up to 12 months. Some contracts include pricing formulas used to determine the billable price at the time of delivery. Moreover, the final prices for certain contracts with customers are not yet fixed at the time of transfer of control. Instead, provisional prices are billed initially.

Sales are recognized in the amount of the transaction price that Covestro is expected to receive. Sales do not include amounts collected on behalf of third parties (e.g., sales tax). Where consideration includes a variable component, for example due to the contract clauses described, this component of the consideration is estimated either based on the expected value method or the most likely amount. The method producing the best estimate is used in this case. However, variable consideration is only taken into account to the extent it is not constrained as defined by IFRS 15 (Revenue from Contracts with Customers). Variable consideration is not constrained if it is highly probable that a significant reversal in the amount of sales will not occur when the corresponding uncertainty is subsequently resolved. The transaction price of a contract is allocated to the performance obligations therein using the relative stand-alone selling prices, which generally correspond to the agreed upon prices. If the conditions are met, variable amounts are completely allocated to individual performance obligations.

Refund liabilities result particularly from rebates granted and total the amount of the rebate expected to be refunded, which is calculated based on the methods described. The rebate deemed to be due is reported in other liabilities under refund liabilities until payment.

As a rule, no warranties are issued beyond normal warranties that products will fulfill the agreed-upon specifications.

In the case of contracts with customers, Covestro generally does not expect more than one year to pass between the transfer of a product to a customer and the payment thereof. As a result, the agreed consideration is not adjusted for significant financing components. When incremental costs of obtaining a contract arise, these are immediately recognized as expenses, if the potential amortization period is one year or less.

Government Grants

Asset-related grants from third parties, such as investment grants, are disclosed under **other receivables and liabilities**. Emission rights granted free of payment by government authorities are recognized in the balance sheet at zero euros or at a reminder value. Emission rights acquired in the market in return for payment are capitalized at cost of acquisition and, if the fair value is lower than the acquisition cost, are impaired. Emissions caused generally result in return obligations which have to be recognized.

Research and Development Expenses

Research and development expenses are incurred in the Covestro Group for in-house research and development activities as well as research and development collaborations and alliances with third parties.

According to IFRSs, research costs cannot be capitalized. Development costs, on the other hand, must be capitalized according to closely defined conditions. An intangible asset must be recognized if there is reasonable certainty of receiving future cash flows that will cover an asset's carrying amount. Covestro's development projects are often subject to uncertainties, so the conditions for the capitalization of development costs are normally not satisfied. Each project or contract is reviewed to determine potential capitalization requirements. The recognition, measurement, and presentation rules for other intangible assets apply where development costs are capitalized.

Income Taxes

Income taxes comprise the taxes levied on taxable income in the individual countries along with changes in deferred tax assets and liabilities that are recognized in profit or loss. The income taxes recognized are reflected at the amounts likely to be payable or reimbursable under the statutory regulations in force, or already enacted in relation to future periods, at the end of the reporting period.

As a rule, deferred taxes are recognized in profit or loss. However, if deferred taxes relate to items recognized outside profit or loss in equity, they, too, are recognized outside profit or loss.

The probability that deferred tax assets resulting from temporary differences, tax credits or loss carryforwards can be utilized in the future is the subject of forecasts by the individual companies regarding the future earnings situation in the respective Covestro companies and other parameters.

Deferred tax liabilities are recognized on planned dividend payments by subsidiaries. Where no dividend payment or disposal of corresponding equity investments is planned for the foreseeable future, no deferred tax liability is recognized on the difference between the proportionate equity according to IFRSs and the tax base of the carrying amount of the investment in the subsidiary (outside basis differences).

The expected effects of uncertain deferred and actual income tax positions are estimated in accordance with IFRIC 23 (Uncertainty over Income Tax Treatments) either based on the expected value method or the most likely amount. The method producing the best estimate is used in this case. Tax audits in which the relevant tax authority could take a view differing from Covestro's legal position are by far the most important sources of estimation uncertainties for uncertain tax positions. Uncertain tax positions are accounted for under the assumption that the tax authorities will investigate all relevant matters and have all relevant information at their disposal.

Acquisition Accounting and Goodwill

Businesses acquired are accounted for pursuant to IFRS 3 (Business Combinations) using the acquisition method, which requires that all identifiable assets acquired and all (contingent) liabilities assumed be recognized and measured at their respective fair values on the date control is obtained. Ancillary acquisition costs are recognized as expenses in the periods in which they occur. If the purchase price or the consideration transferred exceeds the value of the equity acquired, goodwill is recognized. If the value of the equity acquired exceeds the purchase price or the consideration transferred by the acquirer, the difference is recognized in profit or loss after an additional review. Goodwill is not amortized. Its carrying amount is subjected to impairment testing annually or more often if there is any indication of possible impairment. Detailed explanations of impairment testing can be found under "Impairment Testing" in this note. Once an impairment loss has been recognized on goodwill, it generally cannot be reversed in subsequent periods. In the event of a restructuring, e.g., the reorganization of financial reporting processes, or external portfolio divestments, any associated goodwill is reallocated or only derecognized in part according to the relative fair value principle.

The Covestro Group recognizes the components of noncontrolling interests in the acquiree either at fair value or at the noncontrolling interest's proportionate share of the acquiree's identified net assets. The Covestro Group exercises this option separately for each business combination in accordance with the standard.

Other Intangible Assets (Excluding Goodwill)

Other intangible assets are identifiable nonmonetary assets without physical substance, other than goodwill (such as software, rights, or capitalized development costs). Other intangible assets, such as individually acquired patents and technologies, are recognized at the cost of acquisition or production. Patents and technologies, licenses, and customer contracts acquired as part of a business combination are recognized at fair value as of the acquisition date and are amortized using the straight-line method if their useful life can be determined. The following useful lives are applicable, except where the actual depletion demands a different amortization pattern.

Useful life of other intangible assets

Patents and technologies	3 to 20 years
Production rights, trademarks and licenses	10 to 20 years
Customer relationships and distribution rights	7 to 20 years
Software	3 to 4 years
Other rights and assets	max. 20 years

Determination of the expected useful lives of other intangible assets is based on estimates of the period for which they will generate cash flows.

Other intangible assets with an indefinite useful life and other intangible assets recognized, but not yet available for use, with a specified useful life are regularly tested for impairment, like goodwill.

Property, Plant and Equipment

Property, plant and equipment are carried at the cost of acquisition or construction and depreciated by the straight-line method over the expected useful life. If necessary, the carrying amount is reduced by impairment losses or increased by impairment loss reversals. Right-of-use assets recognized in accordance with IFRS 16 (Leases) are also included in property, plant and equipment. The residual values and useful lives of assets are regularly reviewed and adjusted for expected changes as necessary.

If the construction phase or manufacturing process of property, plant or equipment extends over a period of 12 months or more, the interest incurred on borrowed capital up to the date of completion is capitalized as part of the cost of acquisition or construction in accordance with IAS 23 (Borrowing Costs).

Costs for regular, comprehensive maintenance work (such as the major overhaul of a technical facility) are capitalized as a separate component if they satisfy special recognition criteria.

The following depreciation periods are generally applied throughout the Covestro Group:

Useful life of property, plant and equipment

Buildings	20 to 50 years
Infrastructure	10 to 20 years
Storage tanks and pipelines	10 to 20 years
Plant installations	6 to 20 years
Machinery and equipment	6 to 12 years
Furniture and fixtures	4 to 10 years
Vehicles	5 to 8 years
Computer equipment	3 to 5 years
Laboratory and research facilities	3 to 5 years

Significant asset components with different useful lives are accounted for and depreciated separately.

When assets are sold, closed down, or scrapped, the difference between the recoverable amount, which normally amounts to the fair value less costs of disposal, and the net carrying amount of the assets is recognized as a gain or loss in other operating income or expenses, respectively.

Inventories

Inventories are recognized at their cost of acquisition or production (production-related full cost) – calculated by the weighted-average method – or at their net realizable value, whichever is lower. The net realizable value is the estimated selling price in the ordinary course of business less estimated cost to complete and selling expenses. Impairment losses on inventories are recognized if their net realizable value on the reporting date is lower than the value calculated using the weighted-average method. Impairment losses are reversed if the net recoverable amount subsequently exceeds the carrying amount.

Financial Instruments

Contracts are recognized as financial instruments in the financial statements which simultaneously give rise to a financial asset at one entity while resulting in a financial liability or equity instrument at another entity. Accordingly, financial assets are recognized in the consolidated financial statements if the Covestro Group has a contractual right to receive cash or other financial assets from another entity. Regular-way purchases and sales of financial assets are generally posted on the settlement date. Financial liabilities are initially recognized in the consolidated financial statements if Covestro has a contractual obligation to transfer cash or other financial assets to another entity. With the exception of trade accounts receivable, financial instruments are measured at fair value plus directly attributable transaction costs upon initial recognition. For financial instruments measured at fair value through profit or loss, transaction costs are recognized directly in the income statement. Trade accounts receivable are recognized at their transaction price. Subsequent measurement of financial instruments is based on their classification in the categories stipulated by IFRS 9 (Financial Instruments).

Financial Assets

Financial assets comprise loans, acquired equity and debt instruments, cash and cash equivalents, other financial assets, and derivatives with positive fair values. The classification and measurement of financial assets is based on the business model pursued by the Covestro Group with regard to the management of its financial assets for the purpose of collecting cash flows, and on the characteristics of the contractual cash flows from the relevant financial assets (cash flow condition). Subsequent measurement takes place according to the measurement rules for the respective category, as described below.

Financial assets carried at amortized cost comprise nonderivative financial assets that are held as part of a business model that aims to collect contractual cash flows and that additionally fulfill the cash flow condition, i.e., the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. This category comprises trade accounts receivable, the loans included in other financial assets, the additional financial receivables reflected in other receivables, and cash and cash equivalents. Interest income from financial assets assigned to this category is determined using the effective interest method.

Financial assets carried at fair value through other comprehensive income encompass debt instruments held as part of a business model that aims to obtain cash flows from the instrument both by collecting contractual

payments as well as through the sale thereof, and that additionally fulfill the cash flow condition. Acquired bonds may be classified in this category to the extent that they are intended to be sold before they mature. Interest income, foreign currency gains and losses, and impairment losses or impairment loss reversals are recognized in the income statement for financial assets in this category. The remaining changes in fair value are recognized in other comprehensive income. Upon derecognition, the cumulative net gains or losses included in other comprehensive income are reclassified to the income statement.

The Covestro Group exercises the option of recognizing changes in the fair value of equity instruments that are not held for trading in other comprehensive income. In contrast to the treatment of debt instruments, the gains and losses recognized in other comprehensive income are not reclassified to the income statement upon derecognition, and no impairment losses are recognized in profit or loss.

Financial assets carried at fair value through profit or loss are all financial assets not assigned to any of the above categories and particularly include derivatives with positive fair values. The Covestro Group does not opt to measure financial assets at fair value, e.g., for the purpose of avoiding or minimizing accounting mismatches.

Financial assets are derecognized when contractual rights to receive cash flows from the financial assets expire or the financial assets are transferred together with all significant risks and rewards.

Cash and Cash Equivalents

Cash and cash equivalents comprise cash, checks received, and balances with banks. Cash equivalents are highly liquid short-term financial investments that are subject to an insignificant risk of changes in value, are easily convertible into a known amount of cash, and have a maturity of three months or less from the date of acquisition or investment.

Derivatives

Derivatives – such as forward exchange contracts – are used to mitigate the risk of fluctuations in exchange rates. Derivatives are recognized at the trade date.

Contracts concluded in order to receive or deliver nonfinancial goods for the company's own purposes are not accounted for as derivatives but treated as pending transactions. Where embedded derivatives are identified that are required to be separated from the pending transactions, they are accounted for separately. To cover possible peak demand, a nonmaterial volume of transactions may be entered into for which the possibility of immediate resale cannot be excluded. Such transactions are allocated to separate portfolios upon acquisition and accounted for as or like derivatives according to IFRS 9 (Financial Instruments).

Reportable derivatives are carried at fair value. This relates to what are known as standalone derivatives as well as derivatives embedded in certain types of contracts and therefore required to be accounted for separately from their host contracts. Positive fair values at the end of the reporting period are reflected in financial assets, negative fair values in financial liabilities. Changes in the fair values of these derivatives are recognized directly in profit or loss in the other operating result. Changes in the fair values of forward exchange contracts and currency options serving as hedging instruments for items in the statement of financial position are divided into an interest and a currency component. The interest component is recognized in interest expense or income and the currency component is recognized as exchange gains or losses in the other financial result. Changes in the fair value of forward exchange contracts used to hedge forecasted transactions in foreign currencies are recognized in other operating result.

Covestro does not apply hedge accounting.

Financial Liabilities

Financial liabilities generally comprise primary financial liabilities and negative fair values of derivatives.

In subsequent periods, such nonderivative liabilities are measured at amortized cost using the effective interest method. The Covestro Group does not opt to measure financial liabilities at fair value, e.g., to avoid or minimize accounting mismatches.

Financial liabilities are derecognized when the contractual obligation is discharged, cancelled, or has expired.

Provisions for Pensions and Other Post-Employment Benefits

Within the Covestro Group, post-employment benefits are provided under defined contribution and defined benefit plans. In the case of defined contribution plans, the company pays contributions to publicly or privately administered pension plans on a mandatory, contractual or voluntary basis. Once the contributions have been paid, the company has no further payment obligations. The regular contributions constitute expenses for the year in which they are due. As such, they are included in the functional cost items, and thus in income after income taxes plus financial result and income tax expense (EBIT). All other post-employment benefit systems are defined benefit plans, which may be either unfunded, i.e., financed by provisions, or funded, i.e., financed through pension funds.

The present value of the defined benefit obligations and the resulting expense are calculated in accordance with IAS 19 (Employee Benefits) by the projected unit credit method. The future benefit obligations are valued by actuarial methods and spread over the entire employment period on the basis of specific assumptions regarding beneficiary structure and the economic environment. These relate mainly to the discount rate, future salary and pension increases, variations in health care costs, and mortality rates.

The discount rates used are calculated from the yields of high-quality corporate bond portfolios in specific currencies with cash flows approximately equivalent to the expected cash outflows from the pension plans. The uniform discount rate derived from this interest rate structure is thus based on the yields, at the closing date, of a portfolio of corporate bonds with at least an AA or AAA rating whose weighted residual maturities approximately correspond to the duration necessary to cover the entire benefit obligation.

The fair value of plan assets is deducted from the present value of the defined benefit obligation for pensions and other post-employment benefits to determine the net defined benefit liability. Plan assets in excess of the benefit obligation are reflected in other receivables, subject to the asset ceiling specified in IAS 19. Comprehensive actuarial valuations for all major plans are performed annually as of December 31.

The balance of all income and expenses relating to defined benefit plans, except the net interest on the net liability, is recognized in EBIT. The net interest is reflected in the financial result.

The effects of remeasurements of the net defined benefit liability are reflected in other comprehensive income. They consist of actuarial gains and losses, the return on plan assets and changes in the effects of the asset ceiling, less the respective amounts included in net interest for the last two components. Deferred taxes relating to the effects of remeasurements are also recognized in other comprehensive income.

Other Provisions

Other provisions are measured in accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets) or, where applicable, IAS 19 (Employee Benefits). Where the cash outflow to settle an obligation is expected to occur after one year, the provision is recognized at the present value of the expected cash outflow. Claims for reimbursements from third parties are separately reflected in other receivables if their realization is virtually certain.

If the projected obligation declines as a result of a change in the estimate, the provision is reversed by the corresponding amount and the resulting income generally recognized in the functional cost item(s) in which the original charge was recognized.

To enhance the information content of the estimates, certain provisions that could have a material effect on the net assets, financial position and results of operations are selected and tested for their sensitivity to changes in the underlying parameters using sensitivity analysis. To reflect uncertainty about the likelihood of the assumed events actually occurring, the impact of a five-percentage-point change in the probability of occurrence is examined in each case.

Provisions for environmental protection are recorded if future cash outflows are likely to be necessary to ensure compliance with environmental regulations or to carry out remediation work based on an obligation, such costs can be reliably estimated, and no future benefits are expected from such measures.

Estimating the future costs of environmental protection and remediation involves many uncertainties, particularly with regard to the status of laws, regulations and the information available about conditions in the various countries and at the individual sites. Significant factors in estimating the costs include previous experiences in similar cases, the conclusions in expert opinions obtained for existing environmental programs, current costs, and new developments affecting these costs. Also taken into consideration are management's interpretation of current environmental laws and regulations, the number and financial position of third parties that may become obligated to participate in any remediation costs on the basis of joint liability, and the remediation methods likely to be deployed. Changes in these assumptions could impact future reported results.

Taking into consideration experience gained to date regarding environmental matters of a similar nature, Covestro's management believes the existing provisions to be adequate based upon currently available information. Given the businesses in which the Covestro Group operates and the difficulties inherent in accurately estimating liabilities for environmental protection, it remains possible that material additional costs will be incurred beyond the amounts accrued. It may transpire during remediation work that additional expenditures are necessary over an extended period and that these exceed existing provisions and cannot be reasonably estimated.

Provisions for restructuring are based either on a legal or a constructive external obligation. They only cover expenses that arise directly from restructuring measures, are necessary for restructuring, and are not related to future business operations. Such expenses include severance payments to employees and compensation payments in respect of rented property that can no longer be used. Prior to recognition of this type of provision, the associated assets are tested for impairment.

Restructuring measures may include the sale or termination of business units, site closures, relocations of business activities, leveraging of portfolio synergies, or fundamental reorganizations of business units. The respective provisions are established when a detailed restructuring plan has been drawn up, resolved by the responsible decision-making level of management, and communicated to the affected employees and/or their representatives. Provisions for restructuring are generally established at the present value of future cash outflows.

As a company with international operations, the Covestro Group is exposed to numerous legal risks for which provisions for litigation must be established under certain conditions – including especially in the areas of product liability, competition and antitrust law, patent disputes, tax law, environmental law, and compliance issues such as corruption and export control.

Litigation and other judicial proceedings often raise complex issues and are subject to many uncertainties and complexities including, but not limited to, the facts and circumstances of each particular case, the jurisdiction in which each suit is brought and differences in applicable law. The outcomes of currently pending and future proceedings generally cannot be predicted. Judgment in court proceedings, regulatory decisions or the conclusion of a settlement may result in the Covestro Group incurring charges for which no accounting measures have been taken for lack of reasonable estimate or which exceed established provisions and insurance coverage.

The Covestro Group considers the need for accounting measures in respect of pending or future litigations, and the extent of any such measures, on the basis of the information available to the Law, Intellectual Property & Compliance corporate function and in close consultation with legal counsel acting for the Covestro Group.

Where it is more likely than not that such a litigation will result in an outflow of resources that is already reasonably estimable, a provision for litigation is normally recorded in the amount of the present value of the expected cash outflows. Such provisions cover the estimated unavoidable payments to the plaintiffs, court and procedural costs, attorney costs, and the cost of potential settlements.

It is often impossible to reliably determine the existence of a present obligation or reasonably estimate the probability that a potential outflow of resources will result from a pending or future litigation. Due to the special nature of these litigations, provisions generally are not established until initial settlements allow an estimate of potential amounts or judgments have been issued, and not before at least a range of possible legal outcomes of such litigations can be determined. Provisions for legal defense costs are established if it is probable that material costs will have to be incurred for external legal counsel to defend the company's legal position.

Internal and external legal counsels evaluate the current status of the material legal risks of the Covestro Group at the end of each reporting period. The need to establish or adjust a provision and the amount of the provision or adjustment are determined on this basis. Adjusting events are reflected up to the date of preparation of the consolidated financial statements.

 See note 26 "Legal Risks."

Personnel-related provisions are mainly those recorded for variable one-time payments, individual performance awards, long-service awards, severance payments in connection with early retirement arrangements, surpluses on long-term accounts and other personnel costs.

Obligations under share-based compensation programs that provide for awards payable in cash are also included in personnel-related provisions. The compensation of the Board of Management of Covestro AG and of managerial employees includes share-based compensation components that are earned with lock-up periods and are reflected in profit or loss as personnel expenses in line with the consideration paid in the performance period. They are measured using a subscription price model at the time of granting and at each reporting date in accordance with IFRS 2 (Share-based Payment).

Miscellaneous provisions include those for other liabilities, for product liability, for warranty, and insurance payments. Rebates to be granted to customers are reported in refund liabilities, however.

Other Receivables and Liabilities

Other receivables are measured at fair value plus the transaction costs directly attributable to the acquisition of this asset. Grants and subsidies from third parties that serve to promote investment are reflected in the statement of financial position under other liabilities, and amortized to income over the useful lives of the respective investments.

Leases

A lease exists when the lessor grants the lessee the contractual right to control an identified asset for a specified period of time and in return the lessor receives consideration from the lessee.

When Covestro is the lessee in a lease, as a rule a right-of-use asset and a corresponding liability (lease liability) are recognized in the statement of financial position on the date the underlying asset is made available for use to Covestro.

The right-of-use asset represents a lessee's right to use the asset being leased in return for payment. Upon initial recognition, the right-of-use asset is generally capitalized at the amount of the corresponding lease liability plus any initial direct costs, any dismantling obligations and lease payments made prior to the commencement date less any lease incentives received. For subsequent measurement, the right-of-use asset is depreciated over the lease term. Contract modifications, as long as these are not measured as separate leases, and reassessment of the lease liability are also reflected in the right-of-use asset. The right-of-use asset is included in the property, plant and equipment line item in the statement of financial position. Impairment testing and reporting of any impairment losses or impairment loss reversals are carried out for the right-of-use assets in the statement of financial position in accordance with the regulations applicable to property, plant and equipment.

The lease liability represents the company's obligation to make contractual lease payments and is measured as the present value of precisely these outstanding lease payments. While IFRS 16 (Leases) requires use of the interest rate implicit in the lease in order to calculate the present value, it is frequently not possible to ascertain this interest rate. Accordingly, the incremental borrowing rate is generally applied in discounting the lease payments. This rate depends on the term, currency, and start date of the lease. If the outstanding lease payments include fixed payments or variable lease payments that depend on an index or an interest rate, these are taken into consideration in the lease liabilities. Variable lease payments that depend on an index or an interest rate are measured at the underlying index or interest rate as soon as this is to be applied. If, as an exception, there are residual value guarantees, purchase options or penalty fees, these are to be recognized accordingly in the lease liability to the extent that they are anticipated. At Covestro, lease agreements usually include fixed contract terms. Additionally, options to extend and terminate the lease exist particularly for the rental of production and logistics infrastructure and of real estate. In order to assess whether options to extend or terminate the lease are reflected in the lease term, all relevant facts are examined to determine the existence of economic incentives to exercise or not to exercise these options. The lease term is only adjusted to reflect changes in the expectations regarding whether or not such options will be exercised if there is reasonable certainty. The effective interest method is used for the subsequent measurement of lease liabilities. Using this method, periodic lease payments with an effect on cash flows are divided into an interest portion which affects profit or loss and a repayment portion not affecting profit or loss. Lease liabilities are reported in financial liabilities classified as current or noncurrent according to their maturity.

Overall, effects on income from leases to be recognized in accordance with IFRS 16 comprise depreciation of the right-of-use asset and any impairment losses on the right-of-use asset (operating result), discounting and subsequent measurement of the lease liability (financial result) and in cases in which a lease agreement is modified. Such lease modifications can result, for instance, from options to terminate or extend a lease which were previously not explicitly stipulated in the contract. Contractual lease payments for leases accounted for in accordance with IFRS 16 are shown solely under cash flows from financing activities.

IFRS 16 provides exemptions for applying the recognition and measurement rules for leases with a term of less than 12 months, those with a low-value underlying asset, or if the underlying asset is an intangible asset. Covestro considers an asset to be of low value if the new value is less than €5,000. Leases are not recognized as a depreciable right-of-use asset on the balance sheet or as a lease liability at Covestro for the exceptions referenced above. Corresponding contractual payments are instead shown in the cash flows from operating

activities and the same amount is recognized as an expense in the operating result. Moreover, the rules in IFRS 16 are not applied to leases on intangible assets.

For leases in which Covestro is the lessor, a differentiation is made between finance lease and operating lease in accordance with IFRS 16. Leases that transfer substantially all the risks and rewards incidental to ownership of the leased asset to the lessee are treated as finance leases. At the commencement date, Covestro recognizes a lease receivable in the statement of financial position in the amount of the net investment in the lease and derecognizes the underlying asset from the noncurrent assets. In an operating lease, the underlying asset continues to be shown under the Covestro's property, plant and equipment and depreciated over the useful life. Lease payments received are recorded as sales.

Impairment Testing

If there are indications that an individual intangible assets that does not constitute goodwill (other intangible asset) or property, plant and equipment (including recognized right-of-use assets from leases) may be impaired, the recoverable amount is compared to the carrying amount to determine whether it is higher or lower. The recoverable amount is generally the higher of the value in use or the fair value less costs of disposal. If the recoverable amount does not equal or exceed the respective carrying amount, an impairment loss is recognized in profit or loss in the amount of the difference between the carrying amount and the recoverable amount. If the reasons for a previously recognized impairment loss no longer apply, the impairment loss is reversed in profit or loss provided that the reversal does not cause the carrying amount to exceed the original (amortized) cost of acquisition or production.

Impairment losses and any impairment loss reversals are like depreciation and amortization recognized in the functional cost in line with the use of the relevant assets.

In addition to impairment testing of individual items of property, plant and equipment and other intangible assets, cash-generating units are globally tested if there is indication of impairment. Recognized goodwill is tested for impairment if there is indication of impairment, but at least once a year. Testing is generally done in the fourth quarter at the level of (groups of) cash-generating units.

A cash-generating unit (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. As a rule, Covestro considers strategic business areas to be cash-generating units. They represent the reporting level below the seven business units that form the two reportable segments, Performance Materials and Solutions & Specialties. In cases where recognized goodwill in groups of cash-generating units is tested for impairment annually, the level tested is the relevant business unit as an exception.

If recognizing an impairment loss is required at the level of a CGU or group of CGUs, goodwill is written down first. In cases where the necessary impairment loss exceeds the goodwill written down, the remaining charge is distributed across other noncurrent, nonfinancial assets in proportion to their carrying amount unless individual assets must be accounted for differently. The impairment loss on goodwill is reported in other operating expenses. Impairment losses on goodwill may not be reversed.

Generally, the recoverable amount of a CGU or group of CGUs is the fair value less costs of disposal. This calculation is based on present value of the future cash flows since no market price can be determined for the individual units. The forecasts of future cash flows generally have a planning horizon of three to five years and are based on the Covestro Group's current planning. In certain cases, longer planning horizons are also considered if advisable due to specific assumptions underlying the planning. Assumptions made for purposes of forecasting cash flow mainly concern future selling prices and volumes, costs, market growth rates, economic cycles, and exchange rates. Changes in these assumptions are based on the Group's own estimates and external sources of information. Where the recoverable amount is the fair value less costs of disposal, this is measured from the viewpoint of an independent market participant. Cash flows beyond the detailed planning period are determined on the basis of the respective individual growth rates derived from market information and the associated long-term business expectations. The measurement of fair value less costs of disposal is based on unobservable inputs ("Level 3" of the fair value hierarchy).

The net cash inflows are discounted at the weighted average cost of capital (WACC), which is calculated as the weighted average cost of equity and cost of debt. To take into account the risk and return profile of the Covestro Group, an after-tax cost of capital is calculated, and a specific capital structure is defined by benchmarking against comparable companies in the same industry sector ("peer group"). The cost of equity corresponds to the return expected by shareholders, while the cost of debt is based on the terms at which the peer group can obtain long-term financing. In principle, both components are derived from capital market information.

Covestro's organizational and reporting structures were reorganized as part of the global LEAP transformation program as of July 1, 2021. This involved dividing up Covestro's business into standard products (Performance Materials segment) and specialties (Solutions & Specialties segment). The implementation of the reorganization measures also resulted in changes in the monitoring and management of recognized goodwill. In some cases, it was necessary to distribute this among the newly created organizational units where a new organizational unit fully or partly absorbed the business of a CGU to which the goodwill was allocated. In these cases, the recognized goodwill was reallocated by applying a relative carrying amount. The allocation of other net assets to the new organizational units was carried out in accordance with the principles described in note 4 "Segment and Regional Reporting."

The changes in the monitoring and management structure for recognized goodwill and the capital cost factors and growth rates used in annual impairment testing are presented in the following table for each CGU or group of CGUs. The growth assumptions reflect in particular economic cycles over several years as well as expectations for capacity and the market for each unit to be tested.

Impairment testing structure and material measurement parameters in fiscal 2021

Goodwill carrying unit	Reporting level	Goodwill in €m	Cost of capital in %	Growth rate in % (after the detailed planning period)
Standard Diphenylmethan-Diisocyanat (SMDI)	Strategic Business Area	49	6.6	1.5
Standard Polyether-Polyole (SPET)	Strategic Business Area	15	6.6	1.0
Standard Polycarbonate (SPCS)	Strategic Business Area	43	6.6	1.0
Engineering Plastics (EP)	Strategic Business Area	78	6.6	1.5
Tailored Urethanes (TUR)	Business Entity	17	6.6	1.1
Coatings & Adhesives (CA)	Business Entity	534	6.8	1.5
Thermoplastic Polyurethanes (TPU)	Strategic Business Area	16	6.6	1.5
Other	Strategic Business Area	5	6.6	1.0–2.0

Impairment testing structure and material measurement parameters in fiscal 2020

Goodwill carrying unit	Reporting level	Goodwill in €m	Cost of capital in %	Growth rate in % (after the detailed planning period)
Diphenylmethan-Diisocyanat (MDI)	Strategic Business Area	55	6.5	2.0
Polyether-Polyole (PET)	Strategic Business Area	21	6.5	1.0
Polycarbonates (PCS)	Strategic Business Area	119	6.5	2.0
Aliphatics (ALI)	Strategic Business Area	25	6.5	2.0
Performance Resins & Dispersions (PRD)	Strategic Business Area	10	6.5	2.0
Thermoplastic Polyurethanes (TPU)	Strategic Business Area	16	6.5	2.0
Other	Strategic Business Area	9	6.5	2.0

The acquisition of the Resins & Functional Materials (RFM) business in the Coatings & Adhesives business unit from Koninklijke DSM N.V., Heerlen (Netherlands), resulted in a significant addition to acquired goodwill in the Coatings & Adhesives business unit compared to fiscal 2020.

As in the previous year, no impairment losses were recognized on reported goodwill in the reporting period on the basis of the global annual impairment testing of the cash-generating units or groups of cash-generating units. In fiscal 2021, impairment losses on property, plant and equipment and other intangible assets amounted to €5 million (previous year: €20 million) and impairment loss reversals on property, plant and equipment and intangible assets amounted to €3 million (previous year: €0 million).

 See note 13 "Goodwill and Other Intangible Assets" and note 14 "Property, Plant and Equipment."

Although the estimates of the useful lives of certain assets, assumptions concerning the macroeconomic environment and developments in the industries in which the Covestro Group operates, and estimates of the discounted future cash flows are believed to be appropriate, changes in assumptions or circumstances could require changes in the analysis. This could lead to additional impairment losses in the future or – except in the case of goodwill – to reversals of previously recognized impairment losses if developments are contrary to expectations.

The sensitivity analysis for cash-generating units or groups of cash-generating units to which goodwill is allocated was based on a 10% reduction in the future free operating cash flow, a 10% increase in the WACC, or a one-percentage-point reduction in the long-term growth rate. Based on these scenarios, there would be no need to recognize an impairment loss for any of the cash-generating units or groups of cash-generating units except for cash generating unit SPET. The same applies at the measurement date to other deviations from the assumptions used in the impairment testing that were deemed possible.

In the case of SPET, the recoverable amount would correspond to its carrying amount at the measurement date if the discounted cash flows were €110 million lower, the WACC was 1.0 percentage points higher, or the long-term growth rate were 1.1 percentage points lower. As of December 31, 2021, the carrying amount of the SPET cash-generating unit amounted to €956 million. A total of €15 million of this amount was attributable to goodwill recognized, €417 million to noncurrent assets, and €524 million to net working capital. In calculating the recoverable amount for SPET, stabilization of the imbalance of global supply and demand dominating fiscal 2021

was factored into the forecast of future cash flows. Expected efficiency gains resulting from planned measures to increase profitability and efficiency as part of the Group-wide LEAP transformation program were generally not considered in impairment testing. The subsequent realization and precise scope of these efficiency gains as well as the extent and pace of the assumed stabilization of the market situation will materially influence the impairment of the SPET cash-generating unit in the next fiscal year.

Fair Value

According to IFRS 13 (Fair Value Measurement), fair value is the price that would be received to sell an asset or paid to transfer a liability at the measurement date in an orderly transaction in a primary market or, if such is not available, in the most favorable market to which the Covestro Group has access at that time. In essence, the fair value of a liability reflects the risk of nonfulfillment.

If available, the Covestro Group calculates the fair value of a financial instrument based on quoted prices in an active market for this instrument. A market is regarded as active when transactions for the respective asset or liability take place with sufficient frequency and volume to provide regular pricing information at the reporting date.

If no quoted prices on an active market exist, measurement methods are used which maximize the use of relevant observable inputs and minimize the use of non-observable inputs. All factors taken into account by market participants in pricing such a transaction are incorporated into the relevant method of measurement.

Depending on the asset or liability category, specific information is provided about the principles for using or determining fair value. In the Covestro Group, this generally applies to items in the financial statements as well as disclosures in the notes.

Impairment Losses

The Covestro Group calculates a risk provision for expected credit losses for the following items:

- Financial assets measured at amortized cost;
- Debt instruments measured at fair value through other comprehensive income;
- Financial guarantees and loan commitments;
- Contract assets.

For financial instruments without a significant increase in credit risk since initial recognition, the amount of the risk provision for expected credit losses equals the credit losses expected to occur within the next 12 months. For financial instruments with a significant increase in credit risk, a risk provision is calculated in the amount of the credit losses expected over their residual maturity.

Relevant data from within and outside the company that can be obtained with reasonable effort is considered when determining whether the credit risk has increased substantially since initial recognition. For instance, the financial data of counterparties or customers, ratings, the payment histories of counterparties or customers, and forward-looking information are all assessed. It is assumed that a significant increase in credit risk has occurred when the financial asset is more than 30 days past due.

A default event has occurred when the Covestro Group comes to the conclusion that the counterparty is highly unlikely to be able to meet its payment obligations in full.

In the case of trade accounts receivable and contract assets, the amount of the risk provision is equal to the credit losses expected over their remaining term.

At each reporting date, the Covestro Group determines whether financial assets measured at amortized cost or at fair value through other comprehensive income are credit impaired. Indicators of possible credit impairment of a financial asset include observable data regarding the following events:

- Significant financial difficulties of the issuer or borrower;
- A breach of contract, such as default or delinquency;
- Concessions that Covestro makes to the borrower for financial or legal reasons relating to the financial difficulties of the borrower that it would not otherwise make;
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganization;
- The loss of an active market for this financial asset.

The gross carrying amount of a financial asset is derecognized when the Covestro Group comes to the conclusion that the counterparty is no longer able to meet its payment obligations. Following derecognition, the Covestro Group assumes that it will no longer be able to recover any significant amounts.

Noncurrent Assets and Disposal Groups Held for Sale

Noncurrent assets and disposal groups classified as held for sale are carried at the lower of the carrying amount or fair value less the costs of disposal. The costs of disposal are the additional costs incurred directly attributable to the disposal of an asset (a disposal group) with the exception of financing costs and income tax expense. The criteria for classifying an asset or a disposal group as held for sale are only fulfilled when the sale is highly probable and the asset or disposal group may be sold immediately in its current condition. The disposal must be possible, as expected, within one year from the date of classification as a completed sale.

Property, plant and equipment and intangible assets classified as held for sale are not depreciated/amortized. Instead, they are recognized at fair value less the costs of disposal if this is lower than the carrying amount.

4. Segment and Regional Reporting

The Board of Management of Covestro AG, as the chief operating decision maker of the Covestro Group, allocates resources to the reportable segments and assesses their performance. The reportable segments are identified, and the disclosures selected, in line with the internal financial reporting system (management approach).

The Group restructured its organization and reporting as of July 1, 2021. The Group's three reportable segments to date (Polyurethanes (PUR), Polycarbonates (PCS) and Coatings, Adhesives, Specialties (CAS)) have been replaced with two new reportable segments: Performance Materials (PM) and Solutions & Specialties (S & S). The reference information was also restated based on the new structure.

The segments pursue the following activities:

Performance Materials

The Performance Materials segment focuses on developing, producing, and reliably supplying high-performance materials such as standard polyurethanes and polycarbonates, as well as base chemicals. These include i.a. diphenylmethane diisocyanate (MDI), toluene diisocyanate (TDI), long-chain polyols, and polycarbonate resins. Those materials are used in sectors such as the furniture and wood processing industry, the construction industry as well as the automotive and transportation industry. These materials are used in roof structures, insulation for buildings and refrigerators, mattresses, and car seats, among other applications.

Solutions & Specialties

The Solutions & Specialties segment consolidates Covestro's solutions and specialties businesses, and combines chemical products with application technology services. A fast pace of innovation is a key success factor since customer requirements change quickly. Covestro's Solutions & Specialties business comprises a variety of polymer products including polycarbonates, precursors for coatings and adhesives, MDI specialties and polyols, thermoplastic polyurethanes, specialty films, and elastomers. They are used in sectors such as the automotive and transportation industry; the electrical, electronics and household appliances industry; the construction industry; and the healthcare industry. These materials include composite resins for wind turbine rotor blades; precursors for coatings and adhesives; laptop cases; floodlights; and high-quality specialty films.

Business activities that cannot be allocated to any of the aforementioned segments, costs associated with central corporate functions, and higher or lower expenses resulting from more or less favorable Covestro share performance as part of long-term variable compensation are reported in "**Others/Consolidation.**" External sales are generated primarily from the sale of energy, site management services, and rentals and leasing.

As a rule, the segment data is calculated in accordance with the International Financial Reporting Standards (IFRSs) listed in note 3 "Accounting Policies and Valuation Principles" with the following exceptions:

- Intersegment sales are based on arm's length transactions between the units that make up Covestro's segments.
- Property, plant and equipment and intangible assets, except goodwill, including noncurrent assets used jointly by both segments and the associated depreciation, amortization, and impairment losses are allocated according to a principle based on major use. An explanation of the approach and effects of global impairment testing of goodwill is provided in note 3 "Accounting Policies and Valuation Principles."
- Core volume growth* refers to the core products in the Performance Materials and Solutions & Specialties segments. It is calculated as the percentage change in externally sold volumes compared with the prior year. Covestro also takes advantage of business opportunities outside its core business, for example the sale of precursors and by-products such as hydrochloric acid, sodium hydroxide solution, and styrene. Such transactions are not included in core volume growth.
- EBIT and EBITDA are not defined in the IFRSs. EBIT is equal to income after income taxes plus financial result and income taxes. EBITDA is EBIT plus amortization and impairment losses on intangible assets, and depreciation and impairment losses on property, plant and equipment, less impairment loss reversals.
- Free operating cash flow, which is not defined in the IFRSs either, equals cash flows from operating activities less cash outflows for additions to property, plant, equipment and intangible assets. The income taxes paid that make up part of cash flows from operating activities are not directly allocated to any of the company's units. For purposes of calculating cash flows from operating activities, the income taxes paid of a reportable segment are determined according to the management approach by multiplying the effective tax rate (ETR) expected for the fiscal year by that segment's EBIT.
- Trade working capital comprises inventories, trade accounts receivable, and contract assets, less trade accounts payable, contract liabilities, and refund liabilities.

EBIT, EBITDA, and free operating cash flow per segment include intersegment sales and, in each case, the effects of the aforementioned allocation of property, plant and equipment and intangible assets, including noncurrent assets used jointly by both segments, and the associated depreciation, amortization, impairment losses, and impairment loss reversals.

* Not an IFRS indicator; reported voluntarily.

The following tables show the segment reporting data:

Key data by segment¹

	Performance Materials	Solutions & Specialties	Others/ Consolidation	Covestro Group
	€ million	€ million	€ million	€ million
2021				
Sales (external)	8,142	7,554	207	15,903
Intersegment sales ²	2,195	27	(2,222)	–
Sales (total) ²	10,337	7,581	(2,015)	15,903
Core volume growth ³	+0.3%	+26.0%		+10.0%
EBITDA ^{2,4}	2,572	751	(238)	3,085
EBIT ^{2,4}	2,003	503	(244)	2,262
Free operating cash flow ²	1,387	145	(103)	1,429
Cash outflows for additions to property, plant and equipment and intangible assets	488	273	3	764
Depreciation, amortization and impairment losses	(569)	(248)	(6)	(823)
of which impairment losses	(3)	(2)	–	(5)
of which impairment loss reversals	3	–	–	3
Research and development expenses	(104)	(227)	(10)	(341)
2020				
Sales (external)	5,468	5,060	178	10,706
Intersegment sales ²	947	23	(970)	–
Sales (total) ²	6,415	5,083	(792)	10,706
Core volume growth ³				-5.6%
EBITDA ^{2,4}	896	743	(167)	1,472
EBIT ^{2,4}	323	545	(172)	696
Free operating cash flow ²	176	446	(92)	530
Cash outflows for additions to property, plant and equipment and intangible assets	498	203	3	704
Depreciation, amortization and impairment losses	(573)	(198)	(5)	(776)
of which impairment losses	(7)	(13)	–	(20)
of which impairment loss reversals	–	–	–	–
Research and development expenses	(82)	(173)	(7)	(262)

¹ The reference information was calculated based on the new organizational and reporting structure as of July 1, 2021.

² The values were recalculated retroactively as of October 1, 2021, based on a change in the underlying market prices for compensation for transactions between the Performance Materials and Solutions & Specialties segments and the reference information restated accordingly.

³ Reference values calculated on the basis of the definition of the core business effective March 31, 2021. Not an IFRS indicator; reported voluntarily. Reference information for the segments based on fiscal 2019 is not presented here due to the new organizational structure.

⁴ The earnings of the Performance Materials and Solutions & Specialties reportable segments include the effect on earnings of intersegment sales.

Trade working capital by segment¹

	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million
Performance Materials	970	1,392
Solutions & Specialties	978	1,560
Total of reportable segments	1,948	2,952
Others/Consolidation	1	–
Trade working capital	1,949	2,952
of which inventories	1,663	2,914
of which trade accounts receivable	1,593	2,343
of which trade accounts payable	(1,241)	(2,214)
of which IFRS 15 items ²	(66)	(91)

¹ The reference information was calculated based on the new organizational and reporting structure as of July 1, 2021.

² The item includes contract assets, contract liabilities, and refund liabilities.

Information by Geographical Areas

The following table shows information by geographical area. The EMLA region consists of Europe, the Middle East, Africa and Latin America except Mexico, which together with the United States and Canada forms the NA region. The APAC region includes Asia and the Pacific region.

Regional reporting¹

	EMLA € million	NA € million	APAC € million	Total € million
2021				
Sales (external) by market	6,876	3,553	5,474	15,903
Sales (external) by point of origin	6,914	3,617	5,372	15,903
2020				
Sales (external) by market	4,600	2,554	3,552	10,706
Sales (external) by point of origin	4,554	2,613	3,539	10,706

¹ No further presentation of interregional sales is provided, as these are neither reported separately to, nor do they influence the EBIT and EBITDA reported to the Board of Management of Covestro AG.

The following table provides a breakdown by countries of external sales by market and of property, plant and equipment as well as intangible assets:

Sales (external) by market and property, plant and equipment and intangible assets by country

	Sales (external) by market € million	Property, plant and equipment and intangible assets € million
2021		
Germany	1,918	2,091
United States	2,962	1,573
China	3,544	1,534
Other	7,479	2,297
Total	15,903	7,495
2020		
Germany	1,342	1,925
United States	2,128	1,129
China	2,250	1,355
Other	4,986	1,130
Total	10,706	5,539

Information on Major Customers

Revenues from transactions with a single customer in no case exceeded 10% of Covestro Group sales in fiscal 2021 or the previous year.

Reconciliation

The following table shows the reconciliation of EBITDA of the segments to income before income taxes of the Group:

Reconciliation of segments' EBITDA to group income before income taxes¹

	2020	2021
	€ million	€ million
EBITDA of reportable segments	1,639	3,323
EBITDA of Others/ Consolidation	(167)	(238)
EBITDA	1,472	3,085
Depreciation, amortization, impairment losses and impairment loss reversals of reportable segments	(771)	(817)
Depreciation, amortization, impairment losses and impairment loss reversals of Others/ Consolidation	(5)	(6)
Depreciation, amortization, impairment losses and impairment loss reversals	(776)	(823)
EBIT of reportable segments	868	2,506
EBIT of Others/ Consolidation	(172)	(244)
EBIT	696	2,262
Financial result	(91)	(77)
Income before income taxes	605	2,185

¹ The reference information was calculated based on the new organizational and reporting structure as of July 1, 2021.

5. Changes in the Scope of Consolidation

5.1 Scope of Consolidation and Investments

As of December 31, 2021, the scope of consolidation comprised Covestro AG and 66 (previous year: 47) consolidated companies.

The increase in the number of consolidated companies in the reporting year 2021 is attributable to the acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands). A total of 27 RFM companies were fully consolidated effective April 1, 2021, for the first time. As a result of the acquisition of the RFM business, DSM NeoResins Holdings B.V., Waalwijk (Netherlands); DSM Resins Holding (Nederland) B.V., Zwolle (Netherlands); and DSM Coating Resins International Holding B.V., Zwolle (Netherlands), merged with Covestro (Netherlands) B.V., Nieuwegein (Netherlands), and Healthy Nest Inc., Wilmington, Delaware (United States), merged with Covestro LLC, Pittsburgh, Pennsylvania (United States), effective between August 3, 2021, and December 1, 2021. Furthermore, the former RFM company Again IP B.V., Horst aan de Maas (Netherlands), was dissolved effective October 1, 2021.

Asellion B.V., Amsterdam (Netherlands), merged with Covestro (Netherlands) B.V., Nieuwegein (Netherlands), effective July 1, 2021.

The sale of the legal entities Pearl Polyurethane Systems FZCO, Dubai (United Arab Emirates), and Pearl Polyurethane Systems L.L.C, Dubai (United Arab Emirates), was successfully completed effective July 26, 2021. This wrapped up the sale of the polyurethane systems house business in the Middle East.

Effective January 14, 2022, the purchase agreement for the remaining 30% of the shares of the joint venture Japan Fine Coatings Co., Ltd., Ibaraki (Japan), formerly held by our joint venture partner JSR Corporation, Tokyo (Japan), was signed and executed. Covestro is now sole owner of the company.

The scope of consolidation includes the joint operation LyondellBasell Covestro Manufacturing Maasvlakte V.O.F, Rotterdam (Netherlands), as of December 31, 2021, which is unchanged from the previous year. Pursuant to IFRS 11 (Joint Arrangements), Covestro's shares of this company's assets, liabilities, revenues and expenses are included in the consolidated financial statements in accordance with Covestro's rights and obligations. The main purpose of LyondellBasell Covestro Manufacturing Maasvlakte V.O.F is the joint production of propylene oxide (PO) for Covestro and its partner LyondellBasell.

Additionally, two (previous year: two) associated companies are accounted for in the consolidated financial statements using the equity method.

Ten (previous year: nine) subsidiaries and two (previous year: two) associated companies that in aggregate are immaterial to the Covestro Group's net assets, financial position, and results of operations are not consolidated but recognized at cost. The immaterial subsidiaries each accounted for no more than 0.1% of Group sales, equity, or total assets in the reporting year 2021.

The consolidated financial statements of Covestro are submitted to the operator of the Federal Gazette (Bundesanzeiger).

Fully consolidated companies

Company name	Place of business	Covestro's interest in %
EMLA		
Covestro (France) SNC	Fos-sur-Mer (France)	100
Covestro (Netherlands) B.V.	Nieuwegein (Netherlands)	100
Covestro (Slovakia) Services s.r.o.	Bratislava (Slovakia)	100
Covestro Amulix V.o.F.	Zwolle (Netherlands)	72
Covestro Bio-Based Coatings B.V.	Zwolle (Netherlands)	100
Covestro Brunsbüttel Energie GmbH	Brunsbüttel (Germany)	100
Covestro Coating Resins B.V.	Zwolle (Netherlands)	100
Covestro Coating Resins Spain S.L.	Barcelona (Spain)	100
Covestro Desotech B.V.	Hoek van Holland (Netherlands)	100
Covestro Deutschland AG	Leverkusen (Germany)	100
Covestro Elastomers SAS	Romans-sur-Isère (France)	100
Covestro First Real Estate GmbH	Leverkusen (Germany)	100
Covestro GmbH	Leverkusen (Germany)	100
Covestro Indústria e Comércio de Polímeros Ltda.	São Paulo (Brazil)	100
Covestro Intellectual Property GmbH & Co. KG	Leverkusen (Germany)	100
Covestro International SA	Fribourg (Switzerland)	100
Covestro Niaga B.V.	Zwolle (Netherlands)	100
Covestro NV	Antwerp (Belgium)	100
Covestro Polyurethanes B.V.	Nieuwegein (Netherlands)	100
Covestro Procurement Services GmbH & Co. KG	Leverkusen (Germany)	100
Covestro Resins (Germany) GmbH	Meppen (Germany)	100
Covestro Resins B.V.	Zwolle (Netherlands)	100
Covestro Resins China Holding B.V.	Zwolle (Netherlands)	100
Covestro S.r.l.	Filago (Italy)	100
Covestro Second Real Estate GmbH	Leverkusen (Germany)	100
Covestro Thermoplast Composite GmbH	Markt Bibart (Germany)	100
Covestro UK Limited	Cheadle Hulme (United Kingdom)	100
Covestro, S.L.	Barcelona (Spain)	100
DSM Coating Resins (China) Holding B.V.	Zwolle (Netherlands)	100
Epurex Films GmbH & Co. KG	Walsrode (Germany)	100
MS Global AG in Liquidation	Köniz (Switzerland)	100
Solar Coating Solutions B.V.	Geleen (Netherlands)	100
NA		
Covestro Coating Resins, Inc.	Wilmington, Massachusetts (United States)	100
Covestro Desotech Inc.	Elgin, Illinois (United States)	100
Covestro International Re, Inc.	Colchester, Vermont (United States)	100
Covestro International Trade Services Corp.	Wilmington, Delaware (United States)	100
Covestro LLC	Pittsburgh, Pennsylvania (United States)	100
Covestro PO LLC	Pittsburgh, Pennsylvania (United States)	100
Covestro, S.A. de C.V.	Mexico City (Mexico)	100
APAC		
Covestro (Hong Kong) Limited	Hong Kong Special Administration Region (China)	100
Covestro (India) Private Limited	Thane (India)	100
Covestro (Shanghai) Investment Company Limited	Shanghai (China)	100
Covestro (Taiwan) Ltd.	Kaohsiung City (Taiwan, Greater China)	95.5
Covestro (Thailand) Co., Ltd.	Bangkok (Thailand)	100

Fully consolidated companies

Company name	Place of business	Covestro's interest in %
Covestro (Viet Nam) Company Limited	Ho Chi Minh City (Vietnam)	100
Covestro Eternal Resins (Far East) Ltd.	Pingtung (Taiwan, Greater China)	60
Covestro Eternal Resins (Kunshan) Co., Ltd.	Kunshan (China)	50
Covestro Far East (Hong Kong) Limited	Hong Kong Special Administration Region (China)	100
Covestro Invest (Far East) Company Limited	Hong Kong Special Administration Region (China)	100
Covestro Japan Ltd.	Tokyo (Japan)	100
Covestro Korea Corporation	Seoul (South Korea)	100
Covestro Material Science and Technology (Shanghai) Company Limited	Shanghai (China)	100
Covestro Polymers (China) Company Limited	Shanghai (China)	100
Covestro Polymers (Qingdao) Company Limited	Qingdao (China)	100
Covestro Polymers (Shenzhen) Co., Ltd.	Shenzhen (China)	100
Covestro Pty Ltd	Mulgrave (Australia)	100
Covestro Resins (Foshan) Company Ltd.	Foshan (China)	100
Covestro Resins (ROA) Ltd.	Taipei City (Taiwan, Greater China)	100
Covestro Resins (Shanghai) Co., Ltd.	Shanghai (China)	100
Covestro Resins (Taiwan) Ltd.	Taipei City (Taiwan, Greater China)	100
DIC Covestro Polymer Ltd.	Tokyo (Japan)	80
Guangzhou Covestro Polymers Company Limited	Guangzhou (China)	100
Japan Fine Coatings Co., Ltd.	Ibaraki (Japan)	70
PT Covestro Polymers Indonesia	Jakarta (Indonesia)	99.9
Sumika Covestro Urethane Company, Ltd.	Hyogo (Japan)	60

According to IFRS 12 (Disclosure of Interests in Other Entities), Covestro's interest in the amount of 50% in Covestro Eternal Resins (Kunshan) Co., Ltd., Kunshan (China), is classified as a fully consolidated company due to the 57% share of voting rights.

The following joint operation was included in the consolidated financial statements in line with Covestro's shares of its assets, liabilities, revenues and expenses:

Joint operation

Company name	Place of business	Covestro's interest in %
LyondellBasell Covestro Manufacturing Maasvlakte V.O.F	Rotterdam (Netherlands)	50

The following associated companies are accounted for in the consolidated financial statements using the equity method:

Associates accounted for using the equity method

Company name	Place of business	Covestro's interest in %
Paltough Industries (1998) Ltd.	Kibbutz Ramat Yochanan (Israel)	25
PO JV, LP	Houston, Texas (United States)	39.4

The following subsidiaries were reflected in the consolidated financial statements at amortized cost due to their immateriality:

Immaterial subsidiaries

Company name	Place of business	Covestro's interest in %
"Covestro" LLC	Moscow (Russia)	100
Asellion (Shanghai) Information Technology Co., Ltd.	Shanghai (China)	100
Covestro Intellectual Property Verwaltungs GmbH	Leverkusen (Germany)	100
Covestro Invest GmbH	Leverkusen (Germany)	100
Covestro Middle East FZ-LLC	Dubai (United Arab Emirates)	100

Immaterial subsidiaries

Company name	Place of business	Covestro's interest in %
Covestro Polímer Anoním Şirketi	Istanbul (Turkey)	100
Covestro Polymers (Tianjin) Co., Ltd.	Tianjin (China)	100
Covestro Procurement Services Verwaltungs GmbH	Leverkusen (Germany)	100
Covestro sp. z o.o.	Warsaw (Poland)	100
Epurex Films Geschäftsführungs-GmbH	Walsrode (Germany)	100

The following associated companies are accounted for in the consolidated financial statements at cost due to their immateriality:

Immaterial associate

Company name	Place of business	Covestro's interest in %
Pure Salt Baytown, LLC	Baytown, Texas (United States)	0
Technology JV, LP	Houston, Texas (United States)	33.3

The 41.2% investment in Crime Science Technology SAS, Loos (France), is classified as a debt instrument in accordance with IAS 32 (Financial Instruments: Presentation) and is measured at fair value through profit or loss in accordance with IFRS 9 (Financial Instruments).

The following fully consolidated domestic subsidiaries availed themselves in fiscal year 2021 of the exemptions granted under Section 264, Paragraph 3 or Section 264b of the German Commercial Code (HGB) regarding the preparation, auditing, and publication of financial statements:

German exempt subsidiaries

Company name	Place of business	Covestro's interest in %
Covestro GmbH	Leverkusen (Germany)	100
Covestro Intellectual Property GmbH & Co. KG	Leverkusen (Germany)	100
Covestro Procurement Services GmbH & Co. KG	Leverkusen (Germany)	100
Covestro Resins (Germany) GmbH	Meppen (Germany)	100
Epurex Films GmbH & Co. KG	Walsrode (Germany)	100

5.2 Acquisitions and Divestitures**Acquisitions**

On April 1, 2021, Covestro successfully completed the acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., which was included in the consolidated financial statements for the first time as of that date. The responsible authorities approved the transaction after Covestro and Koninklijke DSM N.V. reached an agreement on the purchase at the end of September 2020. The acquisition of RFM makes the Solutions & Specialties segment a leading supplier of sustainable coating resins. Thanks to the acquisition, the segment's even more comprehensive and highly innovative product portfolio will offer customers clear added value. The transaction covers innovative projects such as Additive Manufacturing, Advanced Solar Coatings, and Niaga.

The acquisition was accounted for as a business combination in accordance with IFRS 3 (Business Combinations). For purposes of the purchase price allocation, the acquired company's identifiable assets, the assumed liabilities and contingent liabilities, and any noncontrolling interest in the acquiree were recognized at fair value. According to IFRS 3, the purchase price allocation can be adjusted within one year of the acquisition date based on new information and findings. This can affect especially items that are based on assumptions and estimates, which mainly include provisions, contingent liabilities, and deferred taxes. No assurance can be given that other items may not change.

The acquisition also includes the following shares and voting rights in four companies with noncontrolling interests that are nonetheless fully consolidated: the 50% interest (57% voting rights) in Covestro Eternal Resins

(Kunshan) Co., Ltd., Kunshan (China); the 60% interest (60% voting rights) in Covestro Eternal Resins (Far East) Ltd., Pingtung (Taiwan, Greater China); the 72% interest (72% voting rights) in Covestro Amulix V.o.F., Zwolle (Netherlands); and the 70% interest (100% voting rights) in Japan Fine Coatings Co., Ltd., Ibaraki (Japan).

Covestro and Koninklijke DSM N.V. agreed on a preliminary consideration transferred of €1,544 million, which was paid in cash. The purchase price allocation resulted in a goodwill of €489 million. This goodwill includes expected synergies arising from administrative processes and infrastructure, including cost savings in procurement, sales, and general administration, and from unlocking future business opportunities with new customers. Goodwill is not tax deductible in the countries involved in the acquisition, except the United States. The share of tax-deductible goodwill attributable to the United States amounts to €50 million.

The purchase price allocation was prepared by an external appraiser and continually updated during fiscal 2021 based on additional information, analyses, and calculations. As a result, the purchase price allocation was adjusted as of December 31, 2021. The following overview shows the fair value of the identifiable acquired assets and liabilities as of December 31, 2021, adjustments to these fair values since June 30, 2021, the consideration transferred, and the net cash outflow considering acquired cash and cash equivalents:

Acquired assets and assumed liabilities (fair values at the acquisition date) and adjustments

	June 30, 2021	Adjustment of the purchase price allocation	December 31, 2021
		€ million	
Goodwill	481	8	489
Other intangible assets	624	1	625
Property, plant and equipment	462	(8)	454
Inventories	147	8	155
Trade accounts receivable	202	(10)	192
Other receivables	21	(1)	20
Cash and cash equivalents	75	–	75
Deferred tax assets	21	–	21
Provisions	(33)	–	(33)
Financial liabilities	(33)	–	(33)
Trade accounts payable	(194)	–	(194)
Other liabilities	(42)	–	(42)
Deferred tax liabilities	(148)	2	(146)
Net assets	1,583	–	1,583
Noncontrolling interest	(39)	–	(39)
Consideration transferred	1,544	–	1,544
Acquired cash and cash equivalents	(75)	–	(75)
Net cash outflow for acquisitions	1,469	–	1,469

The other intangible assets mainly include customer relationships in the amount of € 412 million as well as technologies relating to water-based hybrid technologies, powder coating resins, and radiation curing resins in the amount of € 176 million. The measurement of this item at fair value is based mainly on discounted payment surpluses.

The fair value of acquired receivables totaling €212 million relates mainly to trade accounts receivable. At the acquisition date, gross contractual receivables amounted to €214 million, with €2 million of this amount estimated to be unrecoverable.

Noncontrolling interests were measured according to the partial goodwill method in the course of initial consolidation. Based on the partial goodwill method, the value of the noncontrolling interests totals €39 million.

Acquisition-related costs associated with the business combination of €42 million were recognized in the income statement as an expense in the amount of €38 million. Costs of €4 million arising as part of the capital increase prior to the RFM acquisition were recognized in equity. Of this total amount, €38 million had already been recognized in the previous year.

The sales generated by the acquired RFM business since the acquisition date amounted to €862 million, with income after taxes amounting to €– 9 million. The income after taxes comprised expenses resulting from one-time effects and the purchase price allocation. If the aforementioned acquisition had been completed by January 1, 2021, Covestro would have reported sales of €16,266 million. Income after taxes would have amounted to €1,635 million, including expenses from one-time effects and the purchase price allocation. Intercompany profits between Covestro and RFM companies were eliminated in this case.

The purchase price allocation for RFM has not yet been completed, because the preparation and audit of the underlying financial information will still take some time. Allocations of the purchase price to the individual assets and liabilities could therefore still change.

Divestitures

On July 26, 2021, Covestro successfully completed the sale of the assets and liabilities (disposal group) of the system house business in the Middle East to the former co-shareholder Pearl Industries Overseas Ltd., Dubai (United Arab Emirates). The sale of this systems house business is part of Covestro's portfolio optimization process, during the course of which Covestro sold the only North American systems house in April 2017 and the European systems house business in November 2019. The systems house business was part of the Solutions & Specialties segment and offers customer-specific polyurethane systems to the construction sector in particular. The transaction was structured as a share deal. The selling price expected in the fourth quarter of 2020 was lower than the value of the net assets to be sold, which were written down accordingly. Impairment charges led to a loss totaling €16 million reported in manufacturing costs, selling expenses, and general administration expenses in fiscal 2020. In connection with this disposal, current assets amounting to €55 million and liabilities of €22 million were sold. Due to impairment charges on the assets in the previous year, the loss of €1 million on the disposal led to an insignificant negative effect on earnings and was recognized in the other operating expenses.

On July 31, 2021, the sale of assets (disposal group) in Taoyuan (Taiwan, Greater China), to Evermore Chemical Industry Co. Ltd., Nantou (Taiwan, Greater China), was completed successfully. These were part of the RFM acquisition and therefore attributable to the Solutions & Specialties segment. Production-related assets totaling €12 million were sold. Inventories, which are measured separately, were also transferred. Due to remeasurement as part of the purchase price allocation, the disposal led to an insignificant negative effect on earnings. The loss of €1 million on the disposal was recognized in the other operating expenses.

Notes to the Income Statement

6. Sales

Sales are categorized according to "geographical regions and key countries" and mainly comprise sales from contracts with customers and an insignificant amount of rental and leasing sales. The table also contains a breakdown of sales by reportable segments.

Disaggregation of sales

	Performance Materials	Solutions & Specialties	Others/Consolidation	Covestro Group
	€ million	€ million	€ million	€ million
2021				
EMLA	3,878	2,835	163	6,876
of which Germany	978	843	97	1,918
NA	1,926	1,594	33	3,553
of which United States	1,620	1,313	29	2,962
APAC	2,338	3,125	11	5,474
of which China	1,572	1,969	3	3,544
2020				
EMLA	2,572	1,894	134	4,600
of which Germany	657	624	61	1,342
NA	1,347	1,175	32	2,554
of which United States	1,156	942	30	2,128
APAC	1,549	1,991	12	3,552
of which China	993	1,252	5	2,250

The following table presents the opening and closing balances of trade accounts receivable, contract assets, and contract liabilities:

Contract balances

	Jan. 1, 2020	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million	€ million
Trade accounts receivable	1,561	1,593	2,343
Contract assets	43	43	62
Contract liabilities	18	22	37

Contract assets are recognized in case the right to consideration in exchange for goods or services that have been transferred to a customer is conditional. This occurs primarily in the event of goods delivered to consignment warehouses of external customers. Where sales are made through consignment warehouses, customers primarily obtain control over the delivered goods upon delivery to the consignment warehouse. Contract assets are recognized as trade accounts receivable upon invoicing.

Contract liabilities are recognized for advance payments received from customers prior to transferring goods or services. These contract liabilities are recognized as sales when the goods or services have been transferred.

Sales from performance obligations satisfied (or partially satisfied) in previous periods and recognized in fiscal 2021 amounted to €2 million (previous year: €2 million).

The changes in contract assets and contract liabilities in the reporting period resulted from the following circumstances:

Reconciliation of contract assets

	2020 € million	2021 € million
Transfers from contract assets recognized at the beginning of the period to trade accounts receivable	(40)	(43)
Increases due to performance obligations fulfilled but not billed at the reporting date	43	62
Catch-up adjustments to revenue that affect the corresponding contract asset	(3)	–
Business combination	–	–
Total	–	19

Reconciliation of contract liabilities

	2020 € million	2021 € million
Revenue recognized that was included in the contract liability balance at the beginning of the period	(18)	(22)
Increases due to cash received, excluding amounts recognized as revenue during the period	22	36
Catch-up adjustments to revenue that affect the corresponding contract liability	–	–
Business combination	–	1
Total	4	15

The following table provides the transaction price allocated to the remaining performance obligations as of balance sheet date. The total amount is divided according to the reporting period when it is expected to be recognized.

Transaction price allocated to the remaining performance obligations

	Dec. 31, 2020 € million	Dec. 31, 2021 € million
2021	648	1,028
2022	633	885
2023	465	696
2024	323	505
2025	102	574
2026 or later	155	73
Total	2,326	3,761

The disclosures on the transaction price allocated to the remaining performance obligations is based on long-term supply contracts according to IFRS 15 (Revenue from Contract with Customers) which stipulate minimum volumes to be purchased as agreed between both parties.

Performance obligations from contracts with an original expected term of 12 months or less are excluded. Similarly, the disclosure of the transaction price excludes performance obligations satisfied over time for which Covestro has the right to consideration in an amount that corresponds directly with the value to the customer of the performance completed to date and for which Covestro may recognize revenue in the amount to which Covestro has the right to invoice.

The transaction price only includes variable consideration arising from contracts with customers, like sales- or volume-based rebates or price formulas, for which the prices are derived from external, market-based indices, to the extent that they are not constrained as defined in IFRS 15.

7. Other Operating Income

Other operating income was comprised as shown in the following table:

Other operating income

	2020 € million	2021 € million
Gains on retirements of noncurrent assets	3	8
Reversals of impairment losses on receivables	4	11
Gains from derivatives	2	1
Miscellaneous operating income	54	79
Total	63	99

Gains from derivatives in fiscal years 2020 and 2021 resulted from embedded derivatives.

Miscellaneous other operating income for the reporting period mainly included insurance reimbursements of €20 million (previous year: €21 million) and insurance premiums received amounting to €30 million (previous year: €13 million).

8. Other Operating Expenses

Other operating expenses were comprised as shown in the following table:

Other operating expenses

	2020 € million	2021 € million
Losses on retirements of noncurrent assets	(12)	(6)
Impairment losses on receivables	(7)	(5)
Losses from derivatives	(3)	(1)
Miscellaneous operating expenses	(77)	(69)
Total	(99)	(81)

Losses from derivatives in fiscal years 2020 and 2021 resulted from embedded derivatives.

Miscellaneous operating expenses in fiscal 2021 mainly related to insurance expenses of €43 million (previous year: €20 million).

9. Personnel Expenses and Employee Numbers

Personnel expenses consisted of the following:

Personnel expenses

	2020	2021
	€ million	€ million
Salaries	(1,341)	(1,895)
Social expenses and expenses for pensions and other benefits	(382)	(403)
of which for defined contribution pension plans	(95)	(111)
of which for defined benefit and other pension plans	(122)	(115)
Total	(1,723)	(2,298)

In 2021, personnel expenses rose chiefly on account of higher expenses for short-term variable compensation as part of the Group's Covestro Profit Sharing Plan (Covestro PSP) and the increased number of employees resulting from the acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), on April 1, 2021.

Average number of employees

	2020	2021
Production	10,885	11,349
Marketing and distribution	3,181	3,257
Research and development	1,213	1,421
General administration	1,457	1,530
Total	16,736	17,557
Employees in vocational training	514	530

The number of permanent or temporary employees is stated in full-time equivalents (FTEs). Part-time employees are included on a pro-rated basis in line with their contractual working hours. The figures do not include employees in vocational training.

10. Financial Result

10.1 Result from Investments in Affiliated Companies

The result from investments in affiliated companies mainly comprised the result of equity-method valuation of €21 million (previous year: €20 million) loss from the associated company PO JV, LP, Houston, Texas (United States), and the €6 million (previous year: €7 million) gain from Paltough Industries (1998) Ltd., Kibbutz Ramat Yochanan (Israel). This figure also included €2 million (previous year: €1 million) in dividend income from other affiliated companies.

See note 15 "Investments Accounted for Using the Equity Method."

10.2 Net Interest Expense

Net interest expense was comprised as shown in the following table:

Net interest expense

	2020	2021
	€ million	€ million
Expenses		
Interest and similar expenses	(50)	(58)
Interest expenses for FX derivatives	(23)	(21)
Income		
Interest and similar income	6	5
Interest income from FX derivatives	20	33
Total	(47)	(41)

Interest and similar expenses primarily resulted from interest expenses from leases totaling €26 million (previous year: €28 million) and bonds issued by Covestro AG totaling €24 million (previous year: €20 million). Interest income and expenses from forward exchange contracts included interest rate-driven changes in the fair value and the forward element.

10.3 Other Financial Result

The other financial result was comprised as shown in the following table:

Other financial result

	2020	2021
	€ million	€ million
Interest portion of interest-bearing provisions	(19)	(13)
Exchange gain/(loss)	3	1
Miscellaneous financial expenses	(16)	(11)
Total	(32)	(23)

The interest portion of interest-bearing provisions mainly comprised €18 million (previous year: €24 million) in interest expense for pension and other post-employment benefit provisions plus €5 million in effects of interest income (previous year: €5 million) from interest rate fluctuations for other provisions and corresponding overfunding in fiscal 2021.

Miscellaneous financial expenses included €5 million (previous year: €2 million) in negative interest on bank deposits and money market funds.

11. Taxes

The breakdown of tax expenses by type is shown in the table below:

Income taxes

	2020 € million	2021 € million
Current taxes	(199)	(628)
of which tax expense current year	(199)	(627)
of which tax expense prior years	–	(1)
Deferred taxes	48	62
of which from temporary differences	14	55
of which from tax loss carryforwards and tax credits	34	7
Total	(151)	(566)

The deferred tax assets and liabilities were allocated to the items in the statement of financial position as shown in the table below:

Deferred tax assets and liabilities

	Dec. 31, 2020			Dec. 31, 2021		
	Deferred tax assets	Deferred tax liabilities	of which recognized in profit or loss	Deferred tax assets	Deferred tax liabilities	of which recognized in profit or loss
	€ million	€ million	€ million	€ million	€ million	€ million
Intangible assets	27	(13)	14	46	(162)	(116)
Property, plant and equipment	119	(258)	(139)	125	(297)	(172)
of which right-of-use assets from application of IFRS 16	–	(127)	(127)	–	(142)	(142)
Financial assets	1	(43)	(42)	–	(57)	(51)
Inventories	41	(1)	40	85	(3)	82
Receivables	6	(24)	(18)	5	(30)	(25)
Provisions for pensions and other post-employment benefits	710	(16)	24	523	(20)	(14)
Other provisions	62	(19)	43	104	(12)	92
Liabilities	116	(3)	113	159	(2)	157
of which lease liabilities from application of IFRS 16	116	–	116	135	–	135
Tax loss carryforwards and tax credits	41	–	41	54	–	54
Total	1,123	(377)	76	1,101	(583)	7
of which noncurrent	1,060	(345)		973	(532)	
Offsetting	(198)	198		(283)	283	
Recognition	925	(179)		818	(300)	

In connection with the acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V. successfully completed on April 1, 2021, deferred tax liabilities totaling €146 million and deferred tax assets totaling €21 million were recognized as an addition to the purchase price allocation taken directly to equity. These deferred taxes were mainly included in intangible assets.

Of the total tax loss carryforwards of €482 million (previous year: €277 million), an amount of €353 million (previous year: €277 million) is expected to be usable within a foreseeable period. The increase in loss carryforwards was mainly due to the initial consolidation of a company with existing loss carryforwards, the increase in loss carryforwards in the reporting year, and tax reassessments for prior years. Deferred tax assets of €52 million (previous year: €41 million) were recognized for the amount of loss carryforwards expected to be usable.

The use of €129 million (previous year: €0 million) of existing tax loss carryforwards was subject to legal or economic restrictions.

Expiration of unusable tax loss carryforwards

	Tax loss carryforwards	
	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million
Within one year	–	8
Within two years	–	19
Within three years	–	19
Within four years	–	15
Within five years	–	11
Thereafter	–	57
Total	–	129

In the reporting year, tax credits of €2 million were recognized.

In fiscal 2021, subsidiaries that reported losses for the reporting year or the previous year recognized net deferred tax assets totaling €506 million (previous year: €719 million) from temporary differences and tax loss carryforwards. Of this amount, €27 million (previous year: €39 million) was attributable to net deferred tax assets from tax loss carryforwards. The net deferred tax assets are mainly attributable to the domestic tax group of Covestro AG. The losses are due in particular to non-recurring declines in sales and earnings in connection with the coronavirus pandemic in fiscal 2020. All of the deferred tax assets were considered to be unimpaired because the companies concerned were expected to generate taxable income and tax strategies ensure that the deferred tax assets will be utilized. Both the temporary differences and the loss carryforwards can be carried forward and used indefinitely. The planning anticipates stable, positive business performance in future business cycles.

Deferred tax liabilities of €13 million (previous year: €8 million) were recognized in the reporting year for planned dividend payments by subsidiaries. No deferred tax liabilities were recognized for temporary differences of €128 million (previous year: €88 million) relating to shares in subsidiaries, as the parent company can control the timing of the reversal of the temporary differences, and it is unlikely that these temporary differences will reverse in the foreseeable future.

The reported tax expense of €566 million (previous year: €151 million) for fiscal 2021 was €59 million higher (previous year: €25 million) than the expected tax expense of €507 million (previous year: €126 million) that would have resulted from applying an expected weighted average tax rate to the pre-tax income of the Covestro Group. This average tax rate was derived from the expected tax rates of the individual Group companies and amounted to 23.2% in fiscal 2021 (previous year: 20.8%). The effective tax rate was 25.9% (previous year: 25.0%).

The Covestro Group operates in various countries. The tax rates range from 14.1% to 34.3% (previous year: 13.9% to 34.0%) due to national regulations.

The reconciliation of expected to actual income tax expense and of the expected to the effective tax rate for the Covestro Group is shown in the following table:

Reconciliation of expected to actual income tax expense

	2020		2021	
	€ million	%	€ million	%
Expected income tax expense and expected tax rate	126	+20.8	507	+23.2
Reduction in taxes due to tax-free income	(12)	-2.0	(12)	-0.6
Increase in taxes due to non-tax-deductible expenses	19	+3.2	28	+1.3
New tax loss carryforwards unlikely to be usable	–	–	3	+0.1
Tax income (–) and expenses (+) relating to other periods	(1)	-0.2	11	+0.5
Tax effects of change in tax rates	–	–	(1)	–
Other tax effects	19	+3.2	30	+1.4
Actual income tax expense and effective tax rate	151	+25.0	566	+25.9

12. Earnings per Share

Earnings per share are calculated according to IAS 33 (Earnings per Share) as the relationship of the Group's income after income taxes (net income) for the fiscal year to the weighted average number of outstanding no-par voting shares of Covestro AG. In fiscal 2021, a weighted average number of outstanding no-par voting shares of 193,165,396 was used to calculate earnings per share, while in fiscal 2020, these shares amounted to 184,912,207. A total of 10,200,000 new, no-par value bearer shares were issued in 2020 by way of a resolution dated October 13, 2020.

Earnings per share

	2020	2021
	€ million	€ million
Income after income taxes	454	1,619
of which attributable to noncontrolling interest	(5)	3
of which attributable to Covestro AG shareholders (net income)	459	1,616
	Shares	Shares
Weighted average number of outstanding no-par voting shares of Covestro AG	184,912,207	193,165,396
	€	€
Basic earnings per share	2.48	8.37
Diluted earnings per share	2.48	8.37

Notes to the Statement of Financial Position

13. Goodwill and Other Intangible Assets

Changes in intangible assets in fiscal 2021

	Acquired goodwill € million	Patents and technolo- gies € million	Marketing and distribu- tion rights € million	Production rights € million	Software € million	Other rights € million	Advance payments € million	Total € million
Cost of acquisition or generation, December 31, 2020	257	28	40	132	170	203	34	864
Acquisitions	489	176	412	–	–	37	–	1,114
Capital expenditures	–	–	–	–	2	2	15	19
Retirements	–	–	–	–	–	(1)	–	(1)
Transfers	–	–	1	–	1	–	–	2
Transfers (IFRS 5)	–	–	–	–	–	–	–	–
Exchange differences	13	4	10	1	(1)	3	–	30
Cost of acquisition or generation, December 31, 2021	759	208	463	133	172	244	49	2,028
Accumulated amortization, impairment losses and impairment loss reversals, December 31, 2021	2	27	64	132	157	183	–	565
Carrying amounts, December 31, 2021	757	181	399	1	15	61	49	1,463
Amortization and impairment losses in 2021	–	13	30	2	8	10	–	63
Amortization	–	13	30	1	8	10	–	62
Impairment losses	–	–	–	1	–	–	–	1
Impairment loss reversals in 2021	–	–	–	–	–	–	–	–

The acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), led to significant additions of goodwill and other intangible assets.

 See note 5.2 "Acquisitions and Divestitures."

In the reporting year, impairment losses of €1 million (previous year: €1 million) were recognized on goodwill and other intangible assets. As in the prior year, there were no impairment loss reversals.

The items of goodwill significant for the Covestro Group and a detailed description of the method for impairment testing goodwill and other intangible assets are presented in section "["Impairment Testing"](#)".

Changes in intangible assets in fiscal 2020

	Acquired goodwill € million	Patents and technolo- gies € million	Marketing and distribu- tion rights € million	Production rights € million	Software € million	Other rights € million	Advance payments € million	Total € million
Cost of acquisition or generation, December 31, 2019	265	28	92	90	156	205	36	872
Acquisitions	–	–	–	–	–	–	–	–
Capital expenditures	–	–	–	–	2	1	14	17
Retirements	–	–	–	–	(4)	(2)	–	(6)
Transfers	–	–	(48)	48	16	–	(16)	–
Transfers (IFRS 5)	–	–	(4)	(4)	–	–	–	(8)
Exchange differences	(8)	–	–	(2)	–	(1)	–	(11)
Cost of acquisition or generation, December 31, 2020	257	28	40	132	170	203	34	864
Accumulated amortization, impairment losses and impairment loss reversals, December 31, 2020	2	14	33	130	150	171	–	500
Carrying amounts, December 31, 2020	255	14	7	2	20	32	34	364
Amortization and impairment losses in 2020	1	1	6	2	7	5	–	22
Amortization	–	1	6	2	7	5	–	21
Impairment losses	1	–	–	–	–	–	–	1
Impairment loss reversals in 2020	–	–	–	–	–	–	–	–

14. Property, Plant and Equipment

Changes in property, plant and equipment in fiscal 2021

	Land and buildings € million	Plant installations and machinery € million	Furniture, fixtures and other equipment € million	Construction in progress and advance payments € million	Total € million
Cost of acquisition or construction, December 31, 2020	3,499	12,184	769	844	17,296
Acquisitions	112	271	24	47	454
Capital expenditures	90	324	54	497	965
Retirements	(47)	(190)	(23)	–	(260)
Transfers	84	385	16	(487)	(2)
Transfers (IFRS 5)	(9)	(1)	(2)	–	(12)
Exchange differences	142	570	43	19	774
Cost of acquisition or construction, December 31, 2021	3,871	13,543	881	920	19,215
Accumulated depreciation, impairment losses and impairment loss reversals, December 31, 2021	2,282	10,309	590	2	13,183
Carrying amounts, December 31, 2021	1,589	3,234	291	918	6,032
Depreciation and impairment losses in 2021	142	539	80	2	763
Depreciation	141	537	80	1	759
Impairment losses	1	2	–	1	4
Impairment loss reversals in 2021	(3)	–	–	–	(3)

The acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), led to significant additions of property, plant and equipment.

 See note 5.2 "Acquisitions and Divestitures."

In the reporting year impairment losses of €4 million (previous year: €19 million) were recognised and €3 million (previous year: €0 million) impairment loss reversals for the property, plant and equipment.

Borrowing costs of €3 million (previous year: €8 million) were capitalized in property, plant, and equipment in the reporting year as part of the cost of qualifying assets. The capitalization rate applied amounted to 1.8% on average (previous year: 2.1%).

Changes in property, plant and equipment in fiscal 2020

	Land and buildings € million	Plant installations and machinery € million	Furniture, fixtures and other equipment € million	Construction in progress and advance payments € million	Total € million
Cost of acquisition or construction, December 31, 2019	3,427	11,856	766	1,188	17,237
Acquisitions	–	–	–	–	–
Capital expenditures	105	199	90	451	845
Retirements	(41)	(115)	(71)	(1)	(228)
Transfers	127	637	15	(779)	–
Transfers (IFRS 5)	(12)	(3)	(1)	–	(16)
Exchange differences	(107)	(390)	(30)	(15)	(542)
Cost of acquisition or construction, December 31, 2020	3,499	12,184	769	844	17,296
Accumulated depreciation, impairment losses and impairment loss reversals, December 31, 2020	2,101	9,519	500	1	12,121
Carrying amounts, December 31, 2020	1,398	2,665	269	843	5,175
Depreciation and impairment losses in 2020	163	507	82	2	754
Depreciation	150	504	81	–	735
Impairment losses	13	3	1	2	19
Impairment loss reversals in 2020	–	–	–	–	–

14.1 Leasing**Covestro as Lessee**

The reported right-of-use assets from leases are recorded under property, plant and equipment.

Changes in right-of-use assets in 2021

	Land and buildings € million	Plant installations and machinery € million	Furniture, fixtures and other equipment € million	Total € million
Carrying amounts, January 1, 2021	267	241	181	689
Additions	60	122	41	223
Retirements	(9)	(10)	(3)	(22)
Depreciation, impairment losses and impairment loss reversals	(42)	(54)	(47)	(143)
Other changes	9	15	11	35
Carrying amounts, December 31, 2021	285	314	183	782

Changes in right-of-use assets in 2020

	Land and buildings € million	Plant installations and machinery € million	Furniture, fixtures and other equipment € million	Total € million
Carrying amounts, January 1, 2020	329	250	178	757
Additions	31	57	67	155
Retirements	(19)	(3)	(5)	(27)
Depreciation, impairment losses and impairment loss reversals	(63)	(52)	(46)	(161)
Other changes	(11)	(11)	(13)	(35)
Carrying amounts, December 31, 2020	267	241	181	689

Right-of-use assets relate mainly to leases for production and logistics infrastructure and real estate leases. Leases for production and logistics infrastructure are mainly related to the rental of tanks and containers as well as rail cars. For tanks and containers, the average lease term is 16 years (previous year: 15 years) and for rail cars, 12 years (previous year: 12 years). Leases for renting real estate, particularly buildings, are for an average lease term of 14 years (previous year: 10 years). Some of the underlying leases include variable lease payments as well as options to extend or terminate the lease.

 [See note 3 "Accounting Policies and Valuation Principles."](#)

The following table shows the amounts for all leases shown in the statement of cash flows and income statement:

Expenses and cash outflows for leases

	2020	2021
	€ million	€ million
Amounts reported in the statement of cash flows		
Total cash outflow for leases	196	184
Amounts reported in the income statement		
Depreciation, impairment losses and impairment loss reversals	161	143
Interest expense	28	26
Expenses relating to short-term leases	11	14
Expenses relating to leases of low-value assets	3	2
Expenses relating to variable lease payments not included in the lease liability	2	2

As of December 31, 2021, the lease commitments for short-term leases not recognized on the balance sheet amount to €6 million (previous year: €3 million).

Further information on the lease liabilities arising from leases and details on payments from leases are described in the following notes:

 [Note 22 "Financing and Financial Liabilities."](#)

 [Note 27 "Notes to the Statement of Cash Flows."](#)

Covestro as Lessor

In the reporting year, leasing income generated from lease contracts under IFRS 16 (Leases) was €8 million (previous year: €11 million). These are mainly related to real estate. In addition, lease payments from rentals of €4 million (previous year: €7 million) are expected to be received in the following year, not including the investment property as outlined below. Lease payments totaling €5 million are expected to be received in the period from 2023–2026, and lease payments totaling €4 million after the year 2026.

At Covestro, risks from renting real estate are usually limited by building insurance policies and by the contractual obligation of the renter to return the real estate to its original condition. In addition, price adjustments based mainly on the consumer price index mechanisms are contractually agreed.

14.2 Investment Property

Internal valuations are used as the primary basis for determining the fair values of investment property. The income approach is used for buildings and developed sites, and the market comparison approach is used for undeveloped sites.

The total carrying amount of investment property as of December 31, 2021, amounted to €23 million (previous year: €24 million), and its fair value totaled €223 million (previous year: €210 million). The rental income from investment property was €13 million (previous year: €17 million) and the operating expenses directly allocable to this property amounted to €10 million (previous year: €14 million). In the reporting period and in the previous year, there were no material operating expenses recognized for investment property not generating any rental income.

Rental income generated from the leasing of properties classified as investment properties stemmed in part from contracts for hereditary building rights and leases granted by the Covestro Group. These contracts with a weighted average remaining term of 34 years relate to space used by companies and contractual partners in the chemical industry at production sites in Germany. Based on current rental prices, around €5 million in compensation will be received annually from these long-term contracts for the use of this space in the coming years.

15. Investments Accounted for Using the Equity Method

The two following tables contain summarized data from the income statement and statement of financial position of the associate PO JV, LP, Houston, Texas (United States), which is accounted for using the equity method, and show the respective amounts recognized in the financial statements of the Covestro Group.

See note 5.1 "Scope of Consolidation and Investments" for an overview of the companies accounted for using the equity method.

In year 2000, the polyols business and parts of the propylene oxide (PO) production operations of former Lyondell Chemicals Company, Houston, Texas (United States), were acquired with the objective of ensuring access to patented technologies and safeguarding the long-term supply of PO, a precursor for polyurethanes. As part of this strategy, a company was established to jointly produce PO (PO JV, LP, in which Covestro continues to hold a 39.4% interest, as in the prior year). Covestro benefits from fixed long-term supply quotas/volumes of PO from this company's production.

Income statement data of PO JV, LP, Houston, Texas (United States)

	2020 € million	2021 € million
Sales	1,231	2,063
Net loss after taxes	(59)	(58)
Share of net loss after taxes	(20)	(21)
Share of total comprehensive income after taxes	(20)	(21)

Statement of financial position data of PO JV, LP, Houston, Texas (United States)

	Dec. 31, 2020 € million	Dec. 31, 2021 € million
Noncurrent assets	358	359
Equity	358	359
Share of equity	157	156
Other	(12)	(15)
Carrying amount	145	141

The item "Other" mainly comprises differences arising from adjustments of data to Covestro's uniform accounting policies, purchase price allocations and their subsequent measurement.

The following table contains the income statement data and carrying amounts of Paltough Industries (1998) Ltd., Kibbuz Ramat Yochanan (Israel) (Covestro's interest unchanged from the prior year at 25%):

Income statement data and carrying amounts of Paltough Industries (1998) Ltd., Kibbuz Ramat Yochanan (Israel)

	2020 € million	2021 € million
Income after taxes	29	25
Share of income after taxes	7	6
Share of total comprehensive income after taxes	7	6
Carrying amount	28	31

16. Other Financial Assets

The other financial assets were comprised as follows:

Other financial assets

	Dec. 31, 2020		Dec. 31, 2021	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Money market funds	771	771	65	65
Loans and bank deposits	365	360	402	394
Other investments	14	—	27	—
Receivables from derivatives	18	13	40	34
Receivables under lease agreements	8	—	8	—
Total	1,176	1,144	542	493

In fiscal 2021, money market funds totaling €500 million were transferred to Metzler Trust e.V., Frankfurt am Main (Germany).

Receivables from derivatives included currency forward contracts of €34 million (previous year: €13 million) and embedded derivatives of €6 million (previous year: €5 million).

See note 24.2 "Financial Risk Management and Information on Derivatives."

See note 24.1 "Financial Instruments by Category" for further information regarding money market funds, loans and bank deposits and other investments.

Receivables under lease agreements relate to finance leases where Covestro is the lessor and the economic owner of the leased assets is the contractual partner. Receivables under lease agreements are based on expected future lease payments of €32 million (previous year: €33 million) including an interest component of €24 million (previous year: €25 million). In the reporting period, interest income for finance leases of €1 million (previous year: €1 million) was recognized. Of the expected lease payments, €1 million is due within one year (previous year: €1 million), €3 million is due within the following four years (previous year: €3 million) and €28 million is due in subsequent years (previous year: €29 million).

17. Inventories

Inventories were comprised as follows:

Inventories

	Dec. 31, 2020		Dec. 31, 2021	
	€ million	€ million	€ million	€ million
Raw materials and supplies	537		830	
Work in process, finished goods and goods purchased for resale ¹		1,123		2,081
Advance payments		3		3
Total		1,663		2,914

¹ In fiscal 2021, work in process comprises approximately 21% (previous year: approximately 19%).

The significant increase in inventories was mainly attributable to external market conditions in fiscal 2021, in particular higher procurement and energy prices, as well as build-up in order to ensure supply reliability in fiscal 2022.

In fiscal 2021, impairment losses on inventories of €22 million (previous year: €24 million) and reversals of impairment losses of €5 million (previous year: €6 million) were recognized through profit or loss in cost of goods sold.

18. Other Receivables

The other receivables were comprised as follows:

Other receivables

	Dec. 31, 2020		Dec. 31, 2021	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Other tax receivables	108	104	226	223
Deferred charges	81	75	99	90
Contract assets	43	43	62	62
Receivables from employees	6	6	8	8
Receivables from divestments	11	–	13	13
Reimbursement claims	2	2	2	2
Net defined benefit asset	2	–	4	–
Miscellaneous receivables	107	65	96	36
Total	360	295	510	434

Other receivables included €30 million (previous year: €31 million) in financial receivables. The impairment losses on financial receivables as of the reporting date are immaterial.

 See note 6 "Sales" for further information on contract assets.

19. Equity

The individual components of equity and changes in equity in fiscal years 2020 and 2021 are presented in the Covestro Group consolidated statement of changes in equity.

Capital stock

The capital stock of Covestro AG changed as follows in fiscal 2021:

Change in capital stock

	Number of shares	Of which treasury shares	Shares carrying dividend rights	Capital stock	
				number	€ million
Dec. 31, 2020	193,200,000	(39,456)	193,160,544		193
Issuance of treasury shares		39,456	39,456		–
Dec. 31, 2021	193,200,000	–	193,200,000		193

Covestro AG's capital stock as of December 31, 2021, is divided into 193,200,000 (previous year: 193,200,000) no-par value bearer shares and is fully paid up. Each share confers the right to one vote.

Treasury Shares

Covestro AG issued 39,456 (previous year: 95,859) treasury shares to employees of the German legal entities under the Covestment share-based participation program. As of December 31, 2021, the company held no treasury shares (previous year: 39,456, corresponding to 0.02% of the capital stock).

Authorized and Conditional Capital

The annual general meeting (AGM) passed a resolution on April 16, 2021, authorizing the Board of Management to increase the capital stock by up to €57,960,000 in the period up to April 15, 2026, with the approval of the Supervisory Board, by issuing new, no-par value bearer shares against cash contributions and/or contributions in kind (Authorized Capital 2021).

The Authorized Capital 2021 has not been utilized to date.

On July 30, 2020, the AGM authorized the Board of Management to issue bonds with conversion or exchange rights or warrants, or with conversion obligations, or a combination of these instruments on up to 18,300,000 no-par value bearer shares of Covestro AG. Based on this authorization, convertible/warrant bonds can be issued up to a total nominal value of €2 billion by the company or a Group company in the period up to July 29, 2025. The AGM in the year 2020 also resolved to conditionally increase the capital stock by up to €18.3 million by issuing up to 18,300,000 no-par value bearer shares to grant shares to the holders or creditors of such convertible/warrant bonds (Conditional Capital 2020).

The Conditional Capital 2020 has not been utilized to date.

Capital Reserves

Covestro AG's capital reserves as of December 31, 2021, amounted to €3,927 million (previous year: €3,925 million). The increase is attributable to the issuance of treasury shares under the Covestment program (€2 million).

Dividend

The dividend available for distribution is based on the distributable profit reported in the annual financial statements of Covestro AG, which were prepared according to the provisions of the German Commercial Code (HGB). The dividend proposed for fiscal 2021 amounts to €3.40 per share carrying dividend rights for a total distribution of €657 million based on the number of shares carrying dividend rights as of December 31, 2021, and depends on authorization by the shareholders at the Annual General Meeting. It is therefore not recognized as a liability in the consolidated financial statements. For fiscal 2020, a dividend of €1.30 per share carrying dividend rights was paid in April 2021.

Equity Attributable to Noncontrolling Interest

The equity attributable to noncontrolling interest mainly relates to the equity of Sumika Covestro Urethane Company, Ltd., Hyogo (Japan); Covestro Eternal Resins (Kunshan) Co., Ltd., Kunshan (China); Japan Fine Coatings Co., Ltd., Ibaraki (Japan); Covestro Eternal Resins (Far East) Ltd. Pingtung (Taiwan, Greater China); DIC Covestro Polymer Ltd., Tokyo (Japan); and Covestro (Taiwan) Ltd., Kaohsiung City (Taiwan, Greater China).

The changes in equity attributable to noncontrolling interest are presented in the following table:

Components of noncontrolling interest in equity

	2020	2021
	€ million	€ million
January 1	47	37
Change in equity not recognized in profit or loss		
Exchange differences on translation of operations outside the eurozone	(3)	2
Other changes in equity	–	35
Dividend payments	(2)	(11)
Change in equity recognized in profit or loss	(5)	3
December 31	37	66

Accumulated Other Comprehensive Income

Accumulated other comprehensive income was as follows:

Accumulated other comprehensive income

	Currency translation	Accumulated other comprehensive income
	€ million	€ million
Jan. 1, 2020	415	415
Other comprehensive income	(206)	(206)
Total comprehensive income	(206)	(206)
Dec. 31, 2020	209	209
Other comprehensive income	365	365
Total comprehensive income	365	365
Dec. 31, 2021	574	574

20. Provisions for Pensions and Other Post-Employment Benefits

Provisions for pensions and other post-employment benefits were recognized for defined benefit obligations.

See note 9 "Personnel Expenses and Employee Numbers" for the expenses for defined contribution obligations.

The net defined benefit liability for post-employment benefit plans was accounted for as follows:

Net defined benefit liability reflected in the statement of financial position

	Pensions		Other post-employment benefits		Total	
	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million	€ million	€ million	€ million	€ million
Provisions for pensions and other post-employment benefits	1,977	1,054	146	145	2,123	1,199
Germany	1,862	948	–	–	1,862	948
Other countries	115	106	146	145	261	251
Net defined benefit asset	2	4	–	–	2	4
Germany	2	3	–	–	2	3
Other countries	–	1	–	–	–	1
Net defined benefit liability	1,975	1,050	146	145	2,121	1,195
Germany	1,860	945	–	–	1,860	945
Other countries	115	105	146	145	261	250

The expenses for defined benefit plans and for other post-employment benefits included the components described as follows:

Expenses for defined benefit plans

	Pension plans						Other post-employment benefit plans	
	Germany		Other countries		Total		Other countries	
	2020	2021	2020	2021	2020	2021	2020	2021
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Current service cost	97	97	11	12	108	109	2	2
Past service cost	12	3	–	1	12	4	–	–
Service cost	109	100	11	13	120	113	2	2
Interest expense from defined benefit obligation	41	31	15	11	56	42	4	3
Interest income from plan assets	(24)	(19)	(12)	(8)	(36)	(27)	–	–
Net interest	17	12	3	3	20	15	4	3
Total expenses	126	112	14	16	140	128	6	5

In fiscal 2021, a total of €510 million in income (previous year: expense of €130 million) in effects of remeasurements of the net defined benefit liability was also recognized in other comprehensive income. This resulted largely from a rise in discount rates. Of this amount, €500 million (previous year: expense of €119 million) relates to pension obligations and €10 million (previous year: expense of €11 million) to other post-employment benefit obligations.

The changes in the net defined benefit liability for post-employment benefit plans were as follows:

Changes in the present value of the defined benefit obligation

	2020			2021		
	Germany		Other countries	Total	Germany	
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	4,154		790	4,944	4,487	771
Acquisition	–	–	–	–	16	6
Divestment	(3)	(3)	(6)	–	–	–
Current service cost	97	13	110	97	14	111
Past service cost	12	–	12	3	1	4
Interest expense from defined benefit obligation	41	19	60	31	14	45
Net actuarial (gain)/loss	225	69	294	(388)	(41)	(429)
of which due to change in financial assumptions	223	64	287	(363)	(46)	(409)
of which due to change in demographic assumptions	–	(4)	(4)	–	–	–
of which due to experience adjustments	2	9	11	(25)	5	(20)
Employee contributions	10	1	11	14	1	15
Payments due to plan settlements ¹	8	(8)	–	2	(1)	1
Benefits paid out of plan assets	(28)	(41)	(69)	(31)	(46)	(77)
Benefits paid by the company	(29)	(17)	(46)	(33)	(13)	(46)
Exchange differences	–	(52)	(52)	–	47	47
December 31	4,487		771	5,258	4,198	753
of which other post-employment benefits	–	147	147	–	147	147

¹ Payments due to plan settlements may include transfers from and to other companies in the course of employee transfers for which benefits are granted as part of a multi-employer plan managed as a pension plan by the transferring and receiving company.

Changes in fair value of plan assets

	2020			2021		
	Germany		Other countries	Total	Germany	
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	2,457		526	2,983	2,627	510
Acquisition	–	–	–	–	1	5
Divestment	(1)	(3)	(4)	–	–	–
Interest income from plan assets	24	12	36	19	8	27
Return or (expense) on plan assets excluding amounts recognized as interest result	116	47	163	93	(10)	83
Employer contributions	43	10	53	531	8	539
Employee contributions	10	1	11	14	1	15
Payments due to plan settlements ¹	6	(7)	(1)	–	(1)	(1)
Benefits paid out of plan assets	(28)	(41)	(69)	(31)	(46)	(77)
Plan administration cost paid out of plan assets	–	–	–	(1)	–	(1)
Exchange differences	–	(35)	(35)	–	30	30
December 31	2,627		510	3,137	3,253	505
of which other post-employment benefits	–	1	1	–	2	2

¹ Payments due to plan settlements may include transfers from and to other companies in the course of employee transfers for which benefits are granted as part of a multi-employer plan managed as a pension plan by the transferring and receiving company.

Effects of the asset ceiling

	2020			2021		
	Germany		Other countries	Total	Germany	
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	–	2	2	2	–	–
Remeasurement of asset ceiling	–	(1)	(1)	–	–	2
Exchange differences	–	(1)	(1)	–	–	–
December 31	–	–	–	–	–	2
of which other post-employment benefits	–	–	–	–	–	–

Development of the net defined benefit liability

	2020			2021		
	Germany		Other countries	Total	Germany	
	€ million	€ million	€ million	€ million	€ million	€ million
January 1	1,697	266	1,963	1,963	1,860	261
Acquisition	–	–	–	–	15	1
Divestment	(2)	–	(2)	(2)	–	–
Current service cost	97	13	110	110	97	14
Past service cost	12	–	12	12	3	1
Net interest	17	7	24	24	12	6
Net actuarial (gain) / loss	225	69	294	294	(388)	(41)
(Return) or expense on plan assets excluding amounts recognized as interest result	(116)	(47)	(163)	(163)	(93)	10
Remeasurement of asset ceiling	–	(1)	(1)	(1)	–	2
Employer contributions	(43)	(10)	(53)	(53)	(531)	(8)
Employee contributions	–	–	–	–	–	–
Payments due to plan settlements ¹	2	(1)	1	1	2	–
Benefits paid out of plan assets	–	–	–	–	–	–
Benefits paid by the company	(29)	(17)	(46)	(46)	(33)	(13)
Plan administration cost paid out of plan assets	–	–	–	–	1	–
Exchange differences	–	(18)	(18)	(18)	–	17
December 31	1,860	261	2,121	2,121	945	250
of which other post-employment benefits	–	146	146	146	–	145
						145

¹ Payments due to plan settlements may include transfers from and to other companies in the course of employee transfers for which benefits are granted as part of a multi-employer plan managed as a pension plan by the transferring and receiving company.

The benefit obligations pertained mainly to Germany (85%; previous year: 85%) and the United States (11%; previous year: 11%). In Germany, current employees accounted for about 57% (previous year: about 61%) of entitlements under defined benefit plans, retirees or their surviving dependents for about 35% (previous year: about 31%), and former employees with vested pension rights for about 8% (previous year: about 8%). In the United States, current employees accounted for about 38% (previous year: about 40%) of entitlements under defined benefit plans, retirees or their surviving dependents for about 54% (previous year: about 53%), and former employees with vested pension rights for about 8% (previous year: about 7%).

The actual income from plan assets of defined benefit plans for pensions amounted to €110 million (previous year: €199 million). No income was accrued from plan assets for other post-employment benefits either in the reporting period or the prior year.

The following table shows the defined benefit obligations for pensions and other post-employment benefits along with the funded status of the funded obligations:

Defined benefit obligation and funded status

	Pension obligations		Other post-employment benefit obligations		Total	
	2020	2021	2020	2021	2020	2021
	€ million	€ million	€ million	€ million	€ million	€ million
Defined benefit obligation	5,111	4,804	147	147	5,258	4,951
Unfunded	94	135	144	143	238	278
Funded	5,017	4,669	3	4	5,020	4,673
Funded status of funded obligations						
Overfunding	2	6	–	–	2	6
Underfunding	1,883	919	2	2	1,885	921

Pension Entitlements and Other Post-Employment Benefit Obligations

The Covestro Group provides retirement benefits for most of its employees, either directly or by contributing to privately or publicly administered funds. The way these benefits are provided varies according to the legal, tax, and economic conditions of each country, the benefits generally being based on employee compensation and years of service. The obligations relate both to existing retirees' pensions and to pension entitlements of future retirees.

Funded pension plans exist for employees in various countries. In principle, an individual investment strategy is determined for each of the Covestro Group's defined benefit pension plans taking into account the risk structure of the obligations (especially demographics, the current funded status, the structure of the expected future cash flows, interest sensitivity, biometric risks, etc.), the regulatory environment, and the existing level of risk tolerance or risk capacity. A strategic target investment portfolio is then developed in line with the plan's risk structure, taking capital market factors into consideration. Further determinants are risk diversification, portfolio efficiency and the need for both a country-specific and a global risk/return profile centered on ensuring the payment of all future benefits. In principle, as the capital investment strategy for each pension plan is developed individually in light of the plan-specific conditions listed above, the investment strategies for different pension plans may vary considerably. The investment strategies are generally aligned less toward maximizing absolute returns and more toward the reasonable assurance of financing pension commitments over the long term. For plan assets, stress scenarios are simulated and other risk analyses (such as value at risk) are undertaken with the aid of risk management systems.

In addition to investment strategies tailored to the obligations, funding in the form of regular or unscheduled contributions is also an effective instrument for reducing risk. Potential funding measures for pension obligations are therefore selected taking into account country-specific regulatory requirements and liquidity. If an unscheduled contribution is made, the funded status may increase significantly under certain circumstances and thereby reduce the volatility of the net defined benefit liability recognized. As a consequence the level of liability-driven investments in plan assets can be further increased. In addition, the expected future liability on operating cash flows is reduced due to the increase in plan assets that are available to settle pension payments.

Bayer-Pensionskasse VVaG, Leverkusen (Germany), (Bayer-Pensionskasse) is a significant pension plan for Covestro. It has been closed to new members since January 1, 2005. This legally independent fund is regarded as a life insurance company and is therefore subject to the German Insurance Supervision Act. The benefit obligations covered by Bayer-Pensionskasse comprise retirement, surviving dependents' and disability pensions. It is financed with contributions by the active members and by their employers. The company contribution is a certain percentage of the employee contribution. This percentage is the same for all participating employers and is set by agreement between the plan's executive committee and supervisory board, acting on a proposal from the responsible actuary. It takes into account the differences between the actuarial estimates and the actual values for the factors used to determine liabilities and contributions. Bayer AG, Leverkusen (Germany), (Bayer AG) may adjust the company contribution in agreement with the plan's executive committee and supervisory board, acting on a proposal from the responsible actuary. The plan's liability is governed by Section 1, Paragraph 1, Sentence 3 of the German Law on the Improvement of Occupational Pensions (BetrAVG). This means that if the

pension plan exercises its right under the articles of association to reduce benefits, each participating employer has to make up the resulting difference. Covestro is not liable for the obligations of other participating employers, even if they cease to participate in the plan.

Pension entitlements were granted via Rheinische Pensionskasse VVaG, Leverkusen (Germany), (Rheinische Pensionskasse) between January 1, 2005, and December 31, 2020. It has been closed to new members since January 1, 2021. Future pension payments from this plan are based among other things on contributions and the return on plan assets; a guaranteed interest rate applies.

The Bayer-Pensionskasse and Rheinische Pensionskasse pension obligations are classified as multi-employer plans as defined by IAS 19 (Employee Benefits). A defining characteristic of multi-employer plans is that assets from various employers not under common control are pooled at plan level and used to collectively grant pension benefits to employees. Allocation mechanisms that would permit an exact distribution of the plan assets managed by the pension plan to individual employers often do not exist, as in the case of Bayer-Pensionskasse and Rheinische Pensionskasse. Covestro therefore applies an estimation method that is adequately suited to this purpose to calculate its proportional share of the assets of the pension plans.

Pension entitlements for newly hired employees have been granted by Pensionplan2021 since January 1, 2021. This is a funded company pension plan. Contributions are invested in an age-based investment model at the individual employee level. Future pension payments are determined based on the contributions paid in and the return achieved. The pension entitlements are managed by Metzler Trust e. V., Frankfurt am Main, (Germany), (Metzler Trust). Individuals employed at Covestro prior to January 1, 2021, who acquired pension entitlements via Rheinische Pensionskasse are entitled to switch to Pensionsplan2021.

Metzler Trust is also used as a pension vehicle for further obligations than Pensionplan2021. This vehicle covers further retirement provision arrangements for German employees of the Covestro Group, such as the conversion of salary entitlements into pension entitlements, pension obligations, and components of other direct commitments. Metzler Trust covers the majority of funded pension commitments in Germany. Around 35% of the investment total adheres to ESG (environmental, social, and governance) criteria.

The defined benefit pension plans in the United States have been frozen for some years, and no significant new entitlements can be earned under these plans. The assets of all the U.S. pension plans are held by a master trust for reasons of efficiency. The applicable regulatory framework is based on the Employee Retirement Income Security Act (ERISA). The actuarial risks, such as investment risk, interest rate risk and longevity risk, remain with the company.

The other post-employment benefit obligations outside Germany are mainly related to retirees' health care benefit payments in the United States.

The fair value of the plan assets to fund pensions and other post-employment benefit obligations was as follows:

Fair value of plan assets as of December 31

	Pension obligations				Other post-employment obligations	
	Germany		Other countries		Other countries	
	2020 € million	2021 € million	2020 € million	2021 € million	2020 € million	2021 € million
Plan assets based on quoted prices in active markets						
Real estate and special real estate funds	–	–	6	6	–	–
Equities and equity funds	556	495	52	51	–	–
Callable debt instruments	–	–	9	10	–	–
Noncallable debt instruments	782	727	72	45	–	–
Bond funds	415	415	233	253	–	–
Derivatives	1	–	–	–	–	–
Cash and cash equivalents	154	759	8	10	–	–
Other	–	–	9	10	–	–
	1,908	2,396	389	385	–	–
Plan assets for which quoted prices in active markets are not available						
Real estate and special real estate funds	145	194	–	–	–	–
Equities and equity funds	29	70	–	–	–	–
Callable debt instruments	199	224	–	–	–	–
Noncallable debt instruments	331	303	–	–	–	–
Bond funds	–	–	–	–	–	–
Derivatives	–	–	–	–	–	–
Cash and cash equivalents	–	–	–	–	–	–
Other	15	66	120	118	1	2
	719	857	120	118	1	2
Total plan assets	2,627	3,253	509	503	1	2

No properties leased by Group companies were included in the fair value of the domestic plan assets. Likewise, there were no Covestro shares or bonds held through funds. The other plan assets comprise mortgage loans granted, other receivables and qualified insurance policies. In November 2021, current financial assets (money market funds) in the amount of €500 million were transferred to Metzler Trust to cover future pension entitlements and are reported in plan assets under cash and cash equivalents.

Risks

The risks from defined benefit plans arise partly from the defined benefit obligations and partly from the investment in plan assets. The risks lie in the possibility that higher direct pension payments will have to be made to the beneficiaries and/or that additional contributions will have to be made to plan assets in order to meet current and future pension obligations.

Demographic/Biometric Risks

Since a large proportion of the defined benefit obligations comprises lifelong pensions or surviving dependents' pensions, longer claim periods or earlier claims may result in higher benefit obligations, higher benefit expense and/or higher pension payments than previously anticipated.

Investment Risks

If the actual return on plan assets were below the return anticipated on the basis of the discount rate, the net defined benefit liability would increase, assuming there were no changes in other parameters. This could happen as a result of a drop in share prices, increases in market rates of interest, default of individual debtors or the purchase of low-risk but low-interest bonds, for example.

Interest Rate Risks

Declining capital market interest rates, especially for high-quality corporate bonds, would increase the defined benefit obligation. This effect would be at least proportionately offset by the ensuing increase in the fair values of the debt instruments held in plan assets.

Measurement Parameters and their Sensitivities

The bond portfolio consists exclusively of high-quality corporate bonds with a rating of at least AA or AAA. The portfolio does not include any government-guaranteed or secured bonds. The following weighted parameters were used to measure the pension obligations as of December 31 and the expense for pensions and other post-employment benefits in the respective reporting year.

Parameters for benefit obligations

	Germany		Other countries		Total	
	2020	2021	2020	2021	2020	2021
	%	%	%	%	%	%
Pension obligations						
Discount rate	0.70	1.20	1.70	2.15	0.80	1.30
Projected future salary increases	2.75	2.75	2.95	2.95	2.75	2.80
Projected future benefit increases	1.60	1.80	2.72	2.75	1.75	1.90
Other post-employment benefit obligations						
Discount rate	–	–	2.30	2.75	2.30	2.75

In Germany, the Heubeck 2018 G mortality tables were used, in the United States the MP-2021 Mortality Tables. The parameters for measuring the benefit expense are the same as those used to measure the benefit obligations in the most recent annual financial statements.

The parameter sensitivities were computed by expert actuaries based on a detailed evaluation similar to that performed to determine the net defined benefit liability. Altering individual parameters by 0.5 percentage points (mortality by 10% per beneficiary) while leaving the other parameters unchanged would have impacted pension and other post-employment benefit obligations as of the end of fiscal year 2021 as follows:

Sensitivity analysis of benefit obligations

	Germany		Other countries		Total	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations						
0.5 percentage points change in discount rate	(401)	464	(32)	36	(433)	500
0.5 percentage points change in projected future salary increases	28	(26)	3	(3)	31	(29)
0.5 percentage points change in projected future benefit increases	244	(221)	2	(2)	246	(223)
10% change in mortality	(130)	147	(12)	13	(142)	160
Other post-employment benefit obligations						
0.5 percentage points change in discount rate	–	–	(9)	10	(9)	10
10% change in mortality	–	–	(4)	5	(4)	5

Sensitivity analysis of benefit obligations (previous year)

	Germany		Other countries		Total	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations						
0.5 percentage points change in discount rate	(457)	533	(36)	40	(493)	573
0.5 percentage points change in projected future salary increases	37	(34)	3	(3)	40	(37)
0.5 percentage points change in projected future benefit increases	269	(242)	3	(2)	272	(244)
10% change in mortality	(145)	164	(12)	13	(157)	177
Other post-employment benefit obligations						
0.5 percentage points change in discount rate	–	–	(9)	10	(9)	10
10% change in mortality	–	–	(4)	5	(4)	5

Provisions are also set up for the obligations, mainly of Covestro LLC, Pittsburgh, Pennsylvania (United States), to provide post-employment benefits in the form of health care cost payments to retirees. The valuation of health care costs was based on the assumption that they will increase at a rate of 6% (previous year: 7%), which should gradually decline to 5% (previous year: 5%) by 2032. The following table shows the impact of a one-percentage-point change in the assumed health care cost increase rates:

Sensitivity analysis of health care cost increases

	2020		2021	
	Increase of one percentage point	Decrease of one percentage point	Increase of one percentage point	Decrease of one percentage point
	€ million	€ million	€ million	€ million
Impact on other post-employment benefit obligations	13	(10)	11	(10)

Employer Contributions Made or Expected

The following payments or transfers correspond to the employer contributions made or expected to be made to funded benefit plans:

Employer contributions made or expected

	Germany				Other countries			
	2020	2021 expected	2021	2022 expected	2020	2021 expected	2021	2022 expected
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations	43	38	531	33	8	7	7	9
Other post-employment benefit obligations	–	–	–	–	2	–	1	–
Total	43	38	531	33	10	7	8	9

Pensions and other post-employment benefits payable in the future from funded and unfunded plans are estimated as follows:

Future benefit payments

	Payments out of plan assets						Payments by the company					
	Pensions			Other post-employment benefits			Pensions			Other post-employment benefits		
	Germany		Other countries	Germany		Other countries	Germany		Other countries	Germany		Other countries
	€ million	€ million	€ million	Total	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
2022	37	46	–	83	40	6	6	291	36	39	52	52
2023	40	30	–	70	42	5	7	–	–	–	54	54
2024	42	36	–	78	44	6	7	–	–	–	57	57
2025	45	32	–	77	47	7	7	–	–	–	61	61
2026	49	32	–	81	50	7	7	–	–	–	64	64
2027-2031	296	172	2	470	–	–	–	–	–	–	366	366

The weighted average term of the pension obligations is 20.8 years (previous year: 23.3 years) in Germany and 11.5 years (previous year: 12.4 years) in other countries. The weighted average term of the obligations for other post-employment benefits in other countries is 12.3 years (previous year: 12.8 years).

21. Other Provisions

Changes in the various provision categories in fiscal 2021 were as follows:

Changes in other provisions

	Taxes € million	Environ- mental protection € million	Restruc- turing € million	Trade- related commit- ments € million	Litigations € million	Personnel commit- ments € million	Miscele- neous € million	Total € million
December 31, 2020	3	44	3	12	4	267	40	373
Acquisitions	–	1	–	–	–	14	1	16
Additions	3	4	7	26	2	617	47	706
Utilization	(3)	(3)	(3)	(18)	(2)	(172)	(14)	(215)
Reversal	–	–	(1)	(2)	–	(22)	(8)	(33)
Interest cost	–	–	–	–	–	(2)	–	(2)
Exchange differences	–	2	1	–	–	12	–	15
December 31, 2021	3	48	7	18	4	714	66	860
thereof long-term	–	45	3	2	–	148	25	223

Taxes

Provisions for taxes comprise provisions for other types of non-income taxes amounting to €3 million (previous year: €3 million).

Environmental Protection

Provisions for environmental protection mainly relate to the rehabilitation of contaminated land and recultivation of landfills as well as water protection measures at sites in the United States and Spain.

Restructuring

As of December 31, 2021, provisions for restructuring included €7 million (previous year: €2 million) for severance payments.

Personnel Commitments

Personnel-related provisions are mainly those recorded for variable one-time, short-term and long-term incentive payments and other personnel-related provisions.

Long-term Incentive Programs

The long-term incentive programs of the Covestro Group entail commitments offered collectively to different groups of employees. In principle, all obligations from long-term compensation programs are covered by provisions. As of the reporting date, their amount corresponds to the fair value of the entitlement earned of the respective commitments to the employee groups. All resulting valuation adjustments are recognized in profit or loss.

The Board of Management, senior executives and other managerial employees at Covestro are entitled to participate in the Prisma long-term, share-based compensation program. A percentage of the employee's annual base salary – based on his/her position – is defined as a target for variable payments (Prisma target opportunity). The payout is calculated by multiplying the Prisma target opportunity by the total shareholder return (total of Covestro's closing share price* and all of the dividends distributed in the respective performance period divided by the opening share price) and the performance of Covestro stock relative to the STOXX Europe 600 Chemicals benchmark index. In 2021, Prisma was expanded to include a sustainability component that covers Covestro's target for reducing greenhouse gas emissions (CO₂ equivalents, CO₂e).

 See "Compensation Report" in the Group Management Report for more information on the LTI sustainability component.

* Calculated as the average price for the last 30 days of trading in the relevant performance period.

The payout is capped at 200% of the Prisma target opportunity. If Covestro's shares were to significantly underperform the STOXX Europe 600 Chemicals index (e.g., if the share price went down while the index increased in value), Prisma target attainment could amount to zero, in which case there would be no payout. The target achievement for the 2017–2020 tranche amounted to 39.9% and was distributed in the amount of €9 million mainly in January 2021.

The net expense for all long-term incentive programs amounted to €17 million (previous year: €23 million), of which €5 million (previous year: €3 million) was attributable to the Covestment share-based participation program, explained in greater detail in the following section.

The fair value for the Prisma share-based incentive program recognized in the provision amounted to €40 million as of December 31, 2021 (previous year: €35 million). The fair value was calculated using the Monte Carlo simulation method on the basis of the following key parameters pertaining to the reporting date:

Monte Carlo simulation parameters

	Tranche		
	2019	2020	2021
Risk-free interest rate	-0.47%	-0.27%	-0.15%
Stock price volatility	+28.08%	+36.56%	+35.12%
STOXX Europe 600 Chemicals volatility	+13.67%	+22.70%	+20.63%
Correlation between stock price and STOXX Europe 600 Chemicals	0.60	0.74	0.73

Share-Based Participation Program (Covestment)

Under the Covestment program, employees of numerous Group companies could invest a fixed amount of their compensation in Covestro shares in fiscal 2021, which Covestro supplemented through an employer subsidy. The discount granted for fiscal 2021 was generally 20%–30% of the subscription amount and is set every year. The total individual investment amount was capped at €3,600, depending on the Group company and the employee's position. Overall, 99% of Covestro's global workforce was authorized to participate in Covestment.

Around 282,000 shares were purchased by employees at a weighted average share price of €55.04 under the Covestment program in fiscal 2021. Depending on the Group company, the purchased shares are subject to a vesting period of at least one year from the subscription date.

22. Financing and Financial Liabilities

The €5.0 billion Debt Issuance Program launched in the first quarter of 2016 is a key form of external financing. In fiscal 2016, Covestro placed euro bonds totaling €1.5 billion, of which one fixed-rate tranche with a term until September 2024 (a coupon of 1.75% and a volume of €500 million) remains in the portfolio. One tranche with a term until October 2021 (a coupon of 1.00% and a volume of €500 million) was repaid ahead of schedule in full at par value on July 7, 2021. An additional €1.0 billion in euro bonds was placed in 2020. The fixed-rate bonds have terms expiring in February 2026 (a coupon of 0.875% and a volume of €500 million) and June 2030 (a coupon of 1.375% and a volume of €500 million).

Moreover, Covestro AG arranged a credit facility for a total of €50 million in December 2021.

As of December 31, 2021, the Group had total credit facilities of €2,817 million (previous year: €3,969 million) at its disposal. Of this amount, €2.5 billion is attributable to the five-year syndicated revolving credit facility arranged in March 2020. It includes two options to extend the term by one year in each case. One option to extend was exercised in March 2021 to extend the term of the syndicated revolving credit facility to March 2026. An important feature of the credit line is its link to an ESG (environment, social, and governance) rating: The better (worse) the externally calculated ESG score is, the lower (higher) the interest component of the credit facility.

A total of €275 million (previous year: €227 million) of the existing credit facilities was drawn down, while €2,542 million (previous year: €3,742 million) remained unused.

Financial liabilities were comprised as follows:

Financial liabilities

	Dec. 31, 2020		Dec. 31, 2021	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Bonds	1,990	500	1,492	–
Liabilities to banks	227	2	275	50
Lease liabilities	672	111	761	130
Liabilities from derivatives	9	9	11	11
Other financial liabilities	1	–	2	1
Total	2,899	622	2,541	192

Maturities of financial liabilities

Maturity	Dec. 31, 2020		Dec. 31, 2021	
		€ million		€ million
2021		622		192
2022		115		135
2023		90		580
2024		554		293
2025		268		556
2026 or later		1,250		785
Total		2,899		2,541

The financial liabilities of the Covestro Group are mainly unsecured.

Lease Liabilities

Lease payments of €893 million (previous year: €782 million) are to be made to the respective lessors in future years; of this amount, the interest component amounts to €132 million (previous year: €110 million). The lease liabilities mature as follows:

Lease liabilities

Maturity	Dec. 31, 2020			Maturity	Dec. 31, 2021		
	Lease payments	Interest component	Lease liabilities		Lease payments	Interest component	Lease liabilities
	€ million	€ million	€ million		€ million	€ million	€ million
2021	131	20	111	2022	150	20	130
2022	132	17	115	2023	154	19	135
2023	104	14	90	2024	96	15	81
2024	67	11	56	2025	81	13	68
2025	51	8	43	2026	69	10	59
2026 or later	297	40	257	2027 or later	343	55	288
Total	782	110	672	Total	893	132	761

 See note 24.2 "Financial Risk Management and Information on Derivatives" for further information on the accounting for liabilities from derivatives.

23. Other Liabilities

Other liabilities were comprised as follows:

Other liabilities

	Dec. 31, 2020		Dec. 31, 2021	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Other tax liabilities	63	63	59	59
Deferred income	13	13	18	18
Grants and subsidies received from governments	11	2	20	8
Liabilities to employees	25	21	38	34
Liabilities for social expenses	11	11	13	13
Accrued interest on liabilities	12	12	11	11
Contract liabilities	22	22	37	37
Refund liabilities	87	87	116	116
Miscellaneous liabilities	49	31	46	28
Total	293	262	358	324

The miscellaneous liabilities included €3 million (previous year: €3 million) in liabilities from derivatives.

 See note 6 "Sales" for further information on contract liabilities.

24. Financial Instruments

24.1 Financial Instruments by Category

The following tables show the carrying amounts and fair values of the individual financial assets and liabilities based on IFRS 9:

Carrying amounts of financial instruments and their fair values as of December 31, 2021

	Measurement according to IFRS 9					
	Carrying amount	Fair value		Fair value recognized in profit or loss	Measurement according to IFRS 16	Fair value
		Carried at amortized cost	through other comprehensive income			
	€ million	€ million	€ million	€ million	€ million	€ million
Financial assets						
Trade accounts receivable	2,343	2,343	–	–		2,343
Other financial assets	542					
Money market funds	65	–	–	65		65
Loans and bank deposits	402	393	–	9		402
Other investments	27		27	–		27
Receivables under lease agreements	8				8	19
Derivatives that do not qualify for hedge accounting	40			40		40
Other receivables ¹	30	22	–	8		30
Cash and cash equivalents	649	649	–	–		649
Financial liabilities						
Financial debt	2,541					
Bonds	1,492	1,492		–		1,568
Lease liabilities	761				761	
Liabilities to banks	275	275		–		280
Other financial liabilities	2	2		–		2
Derivatives that do not qualify for hedge accounting	11			11		11
Trade accounts payable	2,214	2,214		–		2,214
Other liabilities ²	172					
Derivatives that do not qualify for hedge accounting	3			3		3
Refund liabilities	116	116		–		116
Miscellaneous other liabilities	53	53		–		53

¹ The other receivables recognized in the consolidated statement of financial position also include nonfinancial assets totaling €480 million.

² The other liabilities recognized in the consolidated statement of financial position also include nonfinancial liabilities totaling €186 million.

Carrying amounts of financial instruments and their fair values as of December 31, 2020

	Measurement according to IFRS 9					
	Carrying amount	Carried at amortized cost	Fair value through other comprehensive income	Fair value recognized in profit or loss	Measurement according to IFRS 16	Fair value
			€ million	€ million	€ million	
Financial assets						
Trade accounts receivable	1,593	1,593	–	–		1,593
Other financial assets	1,176					
Money market funds	771	–	–	771		771
Loans and bank deposits	365	360	–	5		365
Other investments	14		14	–		14
Receivables under lease agreements	8				8	21
Derivatives that do not qualify for hedge accounting	18			18		18
Other receivables ¹	31	25	–	6		31
Cash and cash equivalents	1,404	1,404	–	–		1,404
Financial liabilities						
Financial debt	2,899					
Bonds	1,990	1,990		–		2,107
Lease liabilities	672				672	
Liabilities to banks	227	227		–		234
Other financial liabilities	1	1		–		1
Derivatives that do not qualify for hedge accounting	9			9		9
Trade accounts payable	1,241	1,241		–		1,241
Other liabilities ²	150					
Derivatives that do not qualify for hedge accounting	3			3		3
Refund liabilities	87	87		–		87
Miscellaneous other liabilities	60	60		–		60

¹ The other receivables recognized in the consolidated statement of financial position also include nonfinancial assets totaling €329 million.

² The other liabilities recognized in the consolidated statement of financial position also include nonfinancial liabilities totaling €143 million.

The fair values of financial instruments are determined and reported in accordance with IFRS 13 (Fair Value Measurement) on the basis of the fair value hierarchy described below:

Level 1 covers fair values determined on the basis of unadjusted prices which exist in active markets.

Level 2 comprises fair values determined on the basis of parameters which are observable in an active market.

Level 3 applies to fair values determined using parameters whose input factors are not based on observable market data.

The following table shows the assignment of the financial instruments to the three-level fair value hierarchy:

Fair value hierarchy of financial instruments

	Fair value				Fair value					
	Dec. 31, 2020		Level 1	Level 2	Level 3	Dec. 31, 2021		Level 1	Level 2	Level 3
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	
Financial assets carried at fair value										
Money market funds	771	—	771	—	65	—	65	—	—	
Loans and bank deposits	5	—	—	5	9	—	—	—	9	
Other investments	14	5	—	9	27	4	—	—	23	
Derivatives that do not qualify for hedge accounting	18	—	13	5	40	—	34	—	6	
Other receivables	6	—	—	6	8	—	—	—	8	
Financial assets not carried at fair value										
Receivables under lease agreements	21	—	—	21	19	—	—	—	19	
Financial liabilities carried at fair value										
Derivatives that do not qualify for hedge accounting	12	—	9	3	14	—	11	—	3	
Financial liabilities not carried at fair value										
Bonds	2,107	2,107	—	—	1,568	1,568	—	—	—	
Liabilities to banks	234	—	234	—	280	—	280	—	—	
Other financial liabilities	1	—	1	—	2	—	2	—	—	

Reallocation between the different levels of the fair value hierarchy takes place at the end of the reporting period in which the change occurred. During the fiscal year, no transfers were made between the levels of the fair value hierarchy.

Because of the generally short maturities of cash and cash equivalents, loans and bank deposits, trade accounts receivable and payable, and other receivables and liabilities, their carrying amounts do not significantly differ from the fair values.

The fair value of the bonds issued by Covestro AG is based on quoted, unadjusted prices in active markets and therefore assigned to Level 1 of the fair value hierarchy. The fair value of some of the other investments is also based on quoted prices in active markets (Level 1).

The fair values stated for noncurrent financial assets and liabilities are the present values of the respective future cash inflows or outflows. These are determined by discounting the cash flows at a reporting-date interest rate that takes into account the term of the assets or liabilities and the creditworthiness of the counterparty. For this reason, these values are assigned to Level 2 of the fair value hierarchy.

The fair values of money market funds correspond to the quoted prices of the funds in accordance with Article 29 in conjunction with Article 33 of EU Regulation 2017/1131 on money market funds (Level 2).

The fair values of derivatives for which no publicly quoted market prices exist are determined using valuation techniques based on observable market data as of the reporting date (Level 2). Credit value adjustments and debt value adjustments are determined to allow for both the contracting party's credit risk and Covestro's own credit risk. The currency forward contracts are measured individually at their forward rates or forward prices as of the reporting date. These depend on spot rates or prices including time spreads.

Fair values measured using unobservable inputs are categorized within Level 3 of the fair value hierarchy. The fair values of noncurrent receivables under lease agreements are calculated on the basis of interest curves observable in the market. Additionally, a discount for cash flows that are very far in the future is applied as an unobservable factor.

Covestro works with and invests in start-ups under the auspices of the Covestro Venture Capital (COVeC) approach, which was newly developed in fiscal 2020. Investments associated with COVeC activities are recognized either as debt instruments at fair value through profit and loss or other financial investments at fair value directly in equity, depending on the contractual design. The fair value is calculated as the present value of the future cash flows estimated based on available performance indicators. The cash flows are discounted at the current interest rate for the appropriate term on the reporting date and reflecting the creditworthiness of the venture capital company. The main input factors are not based on observable market data (Level 3). The estimated fair value of the debt instruments classified in Level 3 would rise (fall) if the expected cash inflows were to be higher (lower) or if the risk-adjusted discount rate were to be lower (higher).

Other financial investments are recognized at fair value directly in equity because they are held for the long term for strategic reasons. The fair value of some of the other investments is based on quoted prices in active markets (Level 1). Where there are no quoted, unadjusted prices in an active market for identical or similar instruments, and there is no suitable valuation method where all major input factors are based on observable market data, the fair value of the other investments is determined using a market price-oriented valuation method where the main input factors are not based on observable market data (Level 3). The valuation of certain other investments is based on available performance indicators as well as on market valuation multipliers. The estimated fair value of the equity instruments categorized within Level 3 would rise (fall) if the multiple applied were to be greater (smaller).

Further, the fair values of embedded derivatives are determined on the basis of unobservable input factors (Level 3). They are separated from their respective host contracts, which are purchase agreements relating to the operational business. The embedded derivatives cause the cash flows from the contracts to vary with fluctuations in exchange rates, or regional and industry-specific price indices, for example. The internal measurement of embedded derivatives is mainly performed using the discounted cash flow method, which is based on unobservable inputs. These include prices or price indices derived from market data. The estimated fair value of the embedded derivative would rise (fall) if the expected payment flows were to be higher (lower) as a result of fluctuations in exchange rates or prices.

Other receivables include a contingent purchase price receivable from divestments. The fair value of the receivable is measured as the present value of the future cash inflows. The basis is the expected EBITDA of the business unit sold for fiscal year 2021. The cash flows are discounted at the current interest rate for the appropriate term on the reporting date and reflecting the creditworthiness of the buyer. The contingent purchase price receivable is assigned to Level 3 of the fair value hierarchy. The estimated fair value would rise (fall) if the expected cash inflows were to be higher (lower) or if the risk-adjusted discount rate were to be lower (higher).

The table below shows the changes in Level 3 financial instruments:

Changes in the net amount of financial assets and liabilities recognized at fair value based on unobservable inputs

	2020 € million	2021 € million
Net carrying amounts, Jan. 1	21	22
Gains (losses) recognized in profit or loss	(5)	2
of which related to assets/liabilities recognized in the statement of financial position	(5)	2
Gains (losses) recognized outside profit or loss	1	14
Additions of assets (liabilities)	5	5
Net carrying amounts, Dec. 31	22	43

The gains and losses from Level 3 financial assets and liabilities are reported as follows:

- gains and losses from embedded derivatives recognized in profit or loss are reported in other operating expenses or income;
- gains and losses from the contingent purchase price receivable from divestments and debt instruments recognized in profit or loss are reported in other financial result;
- gains and losses from other financial investments are reported in other comprehensive income from equity instruments.

Other financial investments amount to €27 million (previous year: €14 million), of which €18 million (previous year: €4 million) is attributable to Hydrogenious LOHC Technologies GmbH, Erlangen (Germany), and €4 million (previous year: €4 million) to Hi-Bis GmbH, Bitterfeld-Wolfen (Germany). In fiscal 2021, the Covestro Group received dividends of €2 million (previous year: €1 million) from other financial investments, all of which was attributable to Hi-Bis GmbH.

The following table shows income, expenses, gains and losses from financial instruments assigned to the measurement categories in accordance with IFRS 9:

Net result by measurement category in accordance with IFRS 9

	2020 € million	2021 € million
Financial assets carried at amortized cost	(56)	15
of which net interest	1	3
Equity instruments measured at fair value through other comprehensive income	1	2
of which net interest	–	–
Financial instruments measured at fair value through profit or loss	23	33
of which net interest	(3)	12
Financial liabilities carried at amortized cost	(20)	(87)
of which net interest	(46)	(53)

24.2 Financial Risk Management and Information on Derivatives

Capital Management

The main purpose of financial management is to ensure solvency at all times, continuously optimize capital costs and reduce the risks of financing measures. Financial management for the Covestro Group is performed centrally by Covestro AG.

Covestro AG currently holds a Baa2 investment-grade rating with a stable outlook from the rating agency Moody's Investors Service, London (United Kingdom). Covestro uses the debt ratios published by prominent rating agencies in managing its capital and pursues a conservative debt policy along with a balanced financing portfolio. This is based for the most part on bonds, syndicated credit facilities, and bilateral loan agreements.

Credit Risk

Credit risk is the risk of a loss for the Covestro Group when a counterparty is unable to meet its payment obligations arising from a financial instrument as contractually stipulated. The payment obligations to the Covestro Group primarily comprise trade accounts receivable, debt instruments, other financial assets and contract assets.

The carrying amount of the financial assets and the contract assets represents the maximum credit risk exposure.

The impairment loss for financial assets and contract assets recognized during the year resulted almost exclusively from impairment losses on trade accounts receivable. Net reversals of impairment losses amounted to €6 million (previous year: net impairment losses of €3 million) in the reporting year.

Trade Accounts Receivable and Contract Assets

The credit risk the Covestro Group is exposed to through its trade accounts receivable and contract assets depends largely on the creditworthiness of the customer. In order to manage this risk, the Covestro Group's Credit Management implemented a process that uses internal and external data to assess each customer in terms of its creditworthiness. Quantitative and qualitative data are evaluated during the assessment process. The assessment reflects financial data, ratings, payment history, and data on the customer's environment. The customer is allocated to one of five risk categories on the basis of the final assessment. The categories range from A to E, with risk category A representing the most creditworthy companies and risk category E the least.

Meaningful data is used to determine an expected loss rate for each risk category. Data such as default probabilities from rating agencies and credit insurance firms, historical impairment losses recognized by the Covestro Group, and the empirical data from Credit Management are used to determine the expected loss rates. In addition, forward-looking information such as the country rating is also used in determining the expected loss rates. Every year the expected and actual losses are compared (backtesting).

The following table presents the gross carrying amounts and the expected losses for trade receivables and contract assets:

Expected credit loss by category as of December 31

	Cluster					Total
	A	B	C	D	E	
2021						
Expected loss rate (%)	0.01	0.03	0.12	0.70	6.00	
Gross amount (€ million)	665	724	823	167	30	2,409
Expected loss (€ million)	–	–	(2)	(1)	(2)	(5)
2020						
Expected loss rate (%)	0.03	0.14	0.51	1.79	9.37	
Gross amount (€ million)	337	535	582	175	18	1,647
Expected loss (€ million)	–	(1)	(5)	(3)	(2)	(11)

The accumulated impairment losses amounted to €25 million (previous year: €24 million) for those customers that the Covestro Group considers credit impaired on the basis of this assessment. The corresponding gross carrying amount amounted to €25 million (previous year: €24 million). Indicators that trade accounts receivable and contract assets are at risk of credit impairment include significant financial difficulties of the customer and a breach of contract such as default or delinquency. Determining that a customer is credit impaired does not occur automatically when payments are overdue for more than 90 days but is instead always based on the individual assessment conducted by Credit Management.

Total impairment losses for trade accounts receivable and contract assets changed as follows:

Reconciliation of expected credit loss

	2020	2021
	€ million	€ million
Valuation allowances, Jan. 1	(36)	(35)
Net remeasurement impairment loss	(3)	6
Write-offs	3	1
Foreign exchange differences	1	(1)
Valuation allowances, Dec. 31	(35)	(29)

The Covestro Group limits the credit risk exposure from trade accounts receivable by stipulating the shortest payment terms possible. In addition, the Covestro Group has a widely diversified customer portfolio. In order to avoid concentration of risk, customer limits are set, regularly monitored and exceeded only in agreement with Credit Management.

Receivables of €34 million (previous year: €27 million) are secured mainly by letters of credit.

Debt Instruments

The Covestro Group generally pursues a conservative investment policy based on a strategy of maintaining liquidity and safeguarding value. Consequently, the investments are limited to counterparties with investment grade ratings, simple debt instruments and short-term investment horizons. Credit risks, particularly concentration of risk with individual counterparties, are managed by means of a Group-wide limit system in conjunction with ongoing monitoring. Covestro also acts as a start-up investor as part of the Covestro Venture Capital (COVeC) approach newly developed in fiscal 2020. The resulting debt instruments have a long-term investment horizon and are carried at fair value through profit or loss.

The general approach for calculating and recording impairment losses in accordance with IFRS 9 applies to all debt instruments, loan commitments and financial guarantees recognized at amortized cost or at their fair values directly in equity. Covestro uses a general, three-stage approach for measuring the risk provision for expected credit losses as follows:

- Stage 1: The risk provision is calculated as the 12-month expected credit loss, whereby the default probability is derived from historical data published by prominent rating agencies. The Covestro Group assumes that investment grade ratings imply a low level of credit risk.
- Stage 2: The amount of the risk provision is the expected credit loss over the lifetime of the debt instrument if the credit risk has increased significantly since its initial recognition. Changes in credit risk are assessed using the actual payment history and external information. Whenever available, Covestro uses credit default swap prices and other forward-looking information such as ratings outlooks in addition to external ratings.
- Stage 3: If Covestro determines that the collectability of a debt instrument has deteriorated, it is reclassified to stage 3. This is the case, for instance, when a counterparty has obtained insolvency status; when there is sufficient information available to show that the counterparty has applied for insolvency proceedings; or when debt instruments are more than 90 days overdue.

No reclassification between the stages of the general impairment approach took place, and the Covestro Group held no collateral to secure its debt instruments either in the reporting period or in the reference period.

Because of the low credit risk profile, the Covestro Group is not exposed to significant credit risk from debt instruments. For fiscal 2021 and for the previous year, the risk provision calculated using the general approach is immaterial both overall and for the individual stages.

Currency Risks

Currency opportunities and risks for the Covestro Group result from changes in exchange rates and the related changes in the value of financial instruments (including receivables and payables) and of future payment receipts and disbursements in foreign currencies. Material receivables and payables in liquid currencies from operating and financial activities are generally fully hedged through forward exchange contracts. A value-at-risk approach is used to manage foreign currency exposures arising from planned receivables and liabilities. As in the previous year, the planned foreign currency exposure was not hedged. They will be hedged using forward contracts if the foreign currency risk increases significantly. The extent of the currency risk is represented below by a sensitivity analysis.

The currency risk shown in the sensitivity analysis results from the following:

- The unsecured portion of receivables and payables in nonfunctional currencies,
- Unsecured bank deposits and liabilities to banks in nonfunctional currencies,
- Currency risks from embedded derivatives.

Sensitivities were determined based on a hypothetical scenario in which the euro depreciates by 10% against all other currencies compared with the year-end exchange rates. Under this scenario, the estimated hypothetical gains recognized in profit or loss as of December 31, 2021, would have totaled €5.9 million (previous year: €7.1 million). The table below shows the distribution of these effects among the individual currencies:

Sensitivity by currency

	2020		2021
Currency	€ million	Currency	€ million
USD	2.7	USD	2.8
CNY	3.5	CNY	1.4
AUD	0.2	AUD	0.6
Other	0.7	Other	1.1
Total	7.1	Total	5.9

Liquidity Risk

Liquidity risk is the risk of not being able to meet existing or future payment obligations. The liquidity status of all material Group companies is continuously planned and monitored. Liquidity is secured by cash pooling agreements as well as internal and external financing. The syndicated, revolving credit facility amounting to €2.5 billion and running until March 2026 offers additional financial flexibility.

The liquidity risks to which the Covestro Group was exposed from its financial instruments can be divided into obligations for interest and repayment installments on financial liabilities, payment obligations arising from derivatives and loan commitments. The following tables show the maturity structure of the nondiscounted contractually agreed payments arising from these line items:

Maturity analysis of financial liabilities and derivative financial instruments

	Carrying amount	Contractual cash flows							
		Dec. 31, 2021		2022		2023		2024	
		€ million	€ million	€ million	€ million	€ million	€ million	€ million	
Financial liabilities									
Bonds	1,492	20	20	520	11	511	528		
Liabilities to banks	275	51	1	1	226	—	—		
Lease liabilities	761	150	154	96	81	69	343		
Other financial liabilities	2	1	—	—	—	—	1		
Trade accounts payable	2,214	2,214	—	—	—	—	—		
Other liabilities									
Accrued interest on liabilities	11	11	—	—	—	—	—		
Refund liabilities	116	116	—	—	—	—	—		
Miscellaneous other liabilities	42	26	4	—	—	—	12		
Liabilities from derivatives									
Derivatives that do not qualify for hedge accounting	14	13	1	—	—	—	—		
Receivables from derivatives									
Derivatives that do not qualify for hedge accounting	40	37	3	—	—	—	—		
Loan commitments	—	219	—	—	—	—	—		
Financial liabilities									
	Carrying amount	Contractual cash flows							
		Dec. 31, 2020		2021		2022		2023	
		€ million	€ million	€ million	€ million	€ million	€ million	€ million	
Bonds	1,990	523	20	20	520	11	1,039		
Liabilities to banks	227	3	1	1	1	226	—		
Lease liabilities	672	131	132	104	67	51	297		
Other financial liabilities	1	—	—	—	—	—	1		
Trade accounts payable	1,241	1,241	—	—	—	—	—		
Other liabilities									
Accrued interest on liabilities	12	12	—	—	—	—	—		
Refund liabilities	87	87	—	—	—	—	—		
Miscellaneous other liabilities	48	32	2	2	—	—	12		
Liabilities from derivatives									
Derivatives that do not qualify for hedge accounting	12	10	1	1	—	—	—		
Receivables from derivatives									
Derivatives that do not qualify for hedge accounting	18	15	2	1	—	—	—		
Loan commitments	—	219	—	—	—	—	—		

In addition to the primary financial liabilities and derivative financial instruments, there was an obligation under certain conditions to make a loan totaling €219 million (previous year: €219 million) to the effective initial fund of Bayer-Pensionskasse VVaG, Leverkusen (Germany), and Rheinische Pensionskasse VVaG, Leverkusen (Germany), which may result in payments by Covestro AG in subsequent years. This is reflected in the loan commitments shown in the table above.

 See note 25 "Contingent Liabilities and Other Financial Commitments."

In this analysis, foreign currencies were translated at the closing rates. Derivative financial instruments are reported as net amounts.

Interest Rate Risks

Interest rate opportunities and risks for the Covestro Group result from changes in capital market interest rates, which could lead to changes in the fair value of fixed-rate financial instruments and in interest payments in the case of floating-rate instruments. To minimize adverse effects, interest rate risk is managed centrally based on an optimized debt maturity structure.

A sensitivity analysis based on our net floating-rate receivables and payables position at the end of fiscal 2021, taking into account the interest rates relevant for our receivables and payables in all principal currencies, produced the following result: A hypothetical increase in the interest rates by 100 basis points or one percentage point would (assuming currency exchange rates remain constant) result in an increase in interest expense of €3.6 million (previous year: €4.8 million).

Raw Material Price Risks

The Covestro Group requires significant quantities of different forms of energy and petrochemical feedstocks for its production processes. Procurement prices for energy and raw materials may fluctuate significantly. Important raw materials are procured on the basis of long-term supply agreements and active supplier management to minimize substantial price fluctuations. During the past fiscal year, derivative financial instruments were not used to hedge raw material price risks.

Derivatives

As of the reporting date, the nominal volume of the forward exchange contracts used to hedge currency risk amounted to €2,822 million (previous year: €1,722 million). Other market risks are not hedged as of the reporting date.

Covestro has entered into master netting or similar agreements for derivative financial instruments. These take effect in particular in the event of the insolvency of one of the contractual partners involved. The derivative financial instruments covered by netting agreements from the perspective of the Covestro Group are presented in the table below:

Disclosures for netting of financial assets and liabilities as of December 31

	Gross amounts of financial assets / liabilities	Net amounts of financial assets / liabilities presented in the balance sheet	Balance sheet amounts eligible for netting covered by netting agreements	Net amounts after possible netting	
				€ million	€ million
2021					
Receivables from derivatives	34	34	4	30	
Liabilities from derivatives	11	11	4	7	
2020					
Receivables from derivatives	13	13	2	11	
Liabilities from derivatives	9	9	2	7	

25. Contingent Liabilities and Other Financial Commitments

Contingent Liabilities

The following table presents warranty contracts as well as other contingent liabilities existing as of the reporting date:

Contingent liabilities

	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million
Warranty contracts	3	4
Other contingent liabilities	3	5
Total	6	9

Other Financial Commitments

The other financial commitments were as follows:

Other financial commitments

	Dec. 31, 2020	Dec. 31, 2021
	€ million	€ million
Orders already placed for started or planned investment projects	236	335
Loan commitments to pension funds	219	219
Purchase agreement in regard to the acquisition of RFM from Koninklijke DSM N.V. ¹	1,629	–
Total	2,084	554

¹ For additional information, see note 5.2 "Acquisitions and divestitures."

Some of the pension obligations allocable to the Covestro Group are funded through pension institutions used jointly with other companies (especially Bayer AG). In such cases, it can generally be contractually ensured that Covestro participates accordingly in funding measures that serve to guarantee adequate funding status and/or adequate solvency capital of these pension institutions for the long term. To this end, Covestro AG agreed to grant interest-bearing loans of up to €208 million for Bayer-Pensionskasse VVaG, Leverkusen (Germany), and up to €11 million for Rheinische Pensionskasse VVaG, Leverkusen (Germany), for the effective initial fund to be drawn down as required.

26. Legal Risks

As a company with international operations, the Covestro Group is exposed to numerous legal risks, particularly in the areas of product liability, competition and antitrust law, patent disputes, tax law, environmental law, and compliance issues such as corruption and export control. The outcome of any current or future proceedings cannot be predicted. It is therefore possible that legal judgments or regulatory decisions or future settlements could give rise to expenses that are not covered, or not fully covered, by insurers' compensation payments and could significantly affect the earnings of the Covestro Group.

Legal proceedings currently considered to involve material risks are outlined below. The legal proceedings referred to do not necessarily represent an exhaustive list:

Carbon Monoxide Pipeline from Dormagen to Krefeld-Uerdingen

The carbon monoxide pipeline is intended to connect the chemical production sites at Dormagen and Krefeld-Uerdingen and complement the network already existing between Dormagen and Leverkusen. The aim is to ensure a safe and reliable supply of carbon monoxide to and across all sites. Although the pipeline was almost completed by the end of year 2009, it cannot currently be put into operation because of ongoing court proceedings. Following confirmation by the Düsseldorf Administrative Court in the year 2011 that there were no grounds to challenge the material aspects of the planning permission decision, in particular the safety of the materials used and the legal conformity of the relevant pipeline act (Rohrleitungsgesetz), the plaintiffs and the regional government against which legal proceedings had been instituted lodged appeals before the Higher Administrative Court for the state of North Rhine-Westphalia in Münster (Higher Administrative Court). In the year 2014, the Higher Administrative Court raised no objections in principle to the safety and routing of the pipeline, but questioned the constitutionality of the pipeline act which forms the legal basis for the project. On December 21, 2016, the German Federal Constitutional Court dismissed the corresponding constitutionality question referred to it by the Higher Administrative Court as inadmissible and confirmed the legal opinion of the Covestro Group. Subsequently, the Higher Administrative Court again considered the facts of the appeal and, in a decision handed down on August 31, 2020, dismissed the actions against the planning permission decision. In addition, the Higher Administrative Court rejected an appeal against its ruling. The plaintiffs then filed a complaint against the denial of leave to appeal with the Federal Administrative Court in Leipzig in February 2021. The German Federal Constitutional Court dismissed the denial of leave to appeal on December 14, 2021. The judgment by the Higher Administrative Court is therefore final. A number of actions against the planning permission decision are pending at Düsseldorf Administrative Court which could proceed only on the basis of the final judgment by the Higher Administrative Court.

Civil Class Action Lawsuits over Diisocyanates (in the United States)

On July 9, 2018, Covestro LLC, Pittsburgh, Pennsylvania (United States) – as one of numerous other defendants – was served the first of now 12 class action lawsuits initiated by various U.S. diphenylmethane diisocyanate (MDI) and toluene diisocyanate (TDI) customers. The plaintiffs allege that the defendants have violated various provisions of the Sherman Antitrust Act since January 1, 2015, by acting in coordination to limit production capacities of MDI and TDI and, at the same time, raising prices for these products in the market. On October 3, 2018, the Judicial Panel on Multidistrict Litigation ruled that all class action lawsuits in pretrial proceedings would be centralized in the District Court for the Western District of Pennsylvania. Based in essence on the same assertions and the violations of federal consumer protection and antitrust laws allegedly resulting from them, the attorney general of the state of Mississippi filed a separate civil complaint against Covestro LLC and numerous other defendants on behalf of the state and its citizens in September 2019. In November 2020, the parties suspended these lawsuits without prejudice for a period of two years. Covestro currently considers these claims without merit and will therefore use all legal means to defend itself against these allegations – also in light of the official conclusion in November 2018 of the six-month investigation by the U.S. Department of Justice into possible anticompetitive practices in relation to MDI. The case is currently in the discovery phase.

Other Information

27. Notes to the Statement of Cash Flows

27.1 Cash Flows from Operating Activities

The net cash of €2,193 million (previous year: €1,234 million) provided by operating activities comprises the cash surplus from operating activities and reflects the changes in working capital and other noncash transactions.

Cash flows from operating activities were €959 million (77.7%) higher than in the prior year mainly due to an increase in EBIT by €1,566 million, which stood in contrast to €258 million higher cash outflows from working capital and a €391 million increase in income tax payments.

In November 2021, money market funds were transferred to Metzler Trust e.V., Frankfurt am Main (Germany), in the amount of €500 million. The transfer was a noncash transaction and therefore did not result in a cash outflow from operating activities.

27.2 Cash Flows from Investing Activities

Net cash outflow for investing activities in fiscal 2021 amounted to €1,995 million (previous year: €1,769 million).

This was primarily attributable to cash outflows for additions to property, plant, equipment, and intangible assets of €764 million (previous year: €704 million) and cash outflows for acquisitions less acquired cash of €1,469 million for the acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands). In addition, there were cash inflows from other current financial assets of €188 million (previous year: cash outflows of €1,089 million).

The transfer of money market funds amounting to €500 million to Metzler Trust e.V. was a noncash transaction and therefore did not result in a cash inflow from investing activities.

27.3 Cash Flows from Financing Activities

The net cash outflow for financing activities amounted to €965 million in fiscal 2021 (previous year: net cash inflow from financing activities of €1,204 million). Net credit repaid amounted to €624 million (previous year: net credit assumed of €1,056 million). Short-term debt assumed and repaid was netted.

In April 2021, dividend totaling €251 million was paid to Covestro AG shareholders (previous year: €219 million).

The interest paid totaling €81 million (previous year: €79 million) reflected in cash flows from financing activities relates mainly to lease liabilities of €26 million (previous year: €28 million), bonds of €23 million (previous year: €14 million), and forward exchange contracts used to hedge foreign currency risks of €20 million (previous year: €27 million).

Reconciliation of financial debt in 2021

	Carrying amounts Dec. 31, 2020	Changes cashflow realized	Changes cashflow not realized					Carrying amounts Dec. 31, 2021
			Changes due to exchange rate movements	Changes in measurement	Acquisitions (IFRS 3)	Lease contracts	Other changes	
			€ million	€ million	€ million	€ million	€ million	
Bonds	1,990	(500)	–	2	–	–	–	1,492
Liabilities to banks	227	19	–	–	29	–	–	275
Lease liabilities	672	(143)	31	–	4	197	–	761
Other financial liabilities	1	–	–	–	–	–	1	2
Financial debt¹	2,890	(624)	31	2	33	197	1	2,530

¹ Not including forward exchange contracts used to hedge currency risks.

Reconciliation of financial debt in 2020

	Carrying amounts Dec. 31, 2019	Changes cashflow realized	Changes cashflow not realized				Carrying amounts Dec. 31, 2020
			Changes due to exchange rate movements	Changes in measurement	Lease contracts	Other changes	
			€ million	€ million	€ million	€ million	
Bonds	997	991	–	2		–	1,990
Liabilities to banks	10	218	(1)	–		–	227
Lease liabilities	735	(152)	(35)	–	127	(3)	672
Other financial liabilities	–	(1)	–	–		2	1
Financial debt¹	1,742	1,056	(36)	2	127	(1)	2,890

¹ Not including forward exchange contracts used to hedge currency risks.

28. Related Companies and Persons

28.1 Related Companies

Related entities as defined in IAS 24 (Related Party Disclosures) are those legal entities that are able to exert at least significant influence on Covestro AG and its subsidiaries or over which Covestro AG or its subsidiaries exercise control or have at least a significant influence, or are controlled by a related person or close family member of such a person. They include nonconsolidated subsidiaries, joint ventures, associated companies and other related companies and persons.

Receivables from and liabilities to related parties

	Dec. 31, 2020		Dec. 31, 2021	
	Receivables	Liabilities	Receivables	Liabilities
	€ million	€ million	€ million	€ million
Nonconsolidated subsidiaries and associates	3	8	–	6
Associates accounted for using the equity method	6	–	19	–

Sales and purchases of goods and services to/from related parties

	2020		2021	
	Sales of goods and services	Purchases of goods and services	Sales of goods and services	Purchases of goods and services
	€ million	€ million	€ million	€ million
Nonconsolidated subsidiaries and associates	33	46	48	67
Associates accounted for using the equity method	14	493	31	835

The goods and services provided by associated companies mainly result from the ongoing operating business with PO JV, LP, Houston, Texas (United States). Covestro benefits from fixed long-term supply quotas/volumes of propylene oxide (PO) from this company's production.

 See note 15 "Investments Accounted for Using the Equity Method."

Receivables from and payables to related parties mainly comprise leasing and financing matters, trade in goods and services, and other transactions. No impairment losses were recorded on receivables from related parties either in the reporting period or in the reference period.

The services purchased from other related companies and persons comprise consulting services for Supervisory Board and Works Council elections priced at arm's length. In the 2021 reporting year, services amounting to €175 thousand (previous year: €0 thousand) were purchased, and liabilities totaled €23 thousand (previous year: €0 thousand) as of December 31, 2021.

28.2 Related Persons

Related persons as defined in IAS 24 are those natural persons who, on account of their function in the Covestro Group, are responsible for Covestro's global business operations. These persons include the corporate officers of Covestro AG, who are the members of the Board of Management and Supervisory Board.

Compensation of the Corporate Officers

The compensation for corporate officers of Covestro AG in fiscal 2021 amounted to €17,023 thousand (previous year: €9,163 thousand), including the compensation of the Supervisory Board amounting to €1,732 thousand (previous year: €1,679 thousand).

This compensation is shown below:

Compensation of the corporate officers according to IFRSs

	2020	2021
	€ thousand	€ thousand
Total short-term compensation	5,277	12,661
Total share-based compensation (long-term incentive)	2,443	2,188
Service cost for pension entitlements earned in the respective year	1,443	2,174
Aggregate compensation (IFRSs)	9,163	17,023

Aggregate compensation of the members of the Board of Management (according to the German Commercial Code (HGB)) amounted to €15,102 thousand (previous year: €6,947 thousand).

Since 2016, the members of the Board of Management have been entitled to participate in the Prisma long-term share-based compensation program, as long as they are employed by the Covestro Group, and acquire for their own account and hold an individually defined number of Covestro shares as specified by the guidelines. The fair value of the long-term share-based compensation (Prisma) granted to the Board of Management in fiscal 2021 was €4,176 thousand (previous year: €3,349 thousand).

Provisions of €12,808 thousand (previous year: €3,883 thousand) were recognized for the short-term and long-term variable cash compensation for the members of the Board of Management serving during the 2021 reporting period. At the end of the year, the present value of the defined benefit pension obligations for the current members of the Board of Management was €12,594 thousand (previous year: €12,095 thousand). Provisions of €202 thousand (previous year: €1,015 thousand) were recognized for long-term share-based cash compensation for former members of the Board of Management. The present value of the defined benefit pension obligations for former members of the Board of Management was €7,696 thousand (previous year: €8,270 thousand).

The compensation of the Supervisory Board is exclusively non-performance-related. In addition to their compensation as members of the Supervisory Board, those employee representatives who are employees of Covestro Group companies receive compensation unrelated to their service on the Supervisory Board. The total amount of such compensation was €667 thousand (previous year: €652 thousand). Pension obligations for employee representatives on the Supervisory Board amounted to €3,698 thousand (previous year: €3,798 thousand).

There were no advances or loans to members of the Board of Management or the Supervisory Board outstanding in fiscal 2021 or the previous year.

29. Auditor's Fees

Since fiscal 2018 KPMG AG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Germany) (KPMG AG), has been the elected statutory auditor of Covestro AG and Covestro Group. Dr. Markus Zeimes has been the auditor primarily responsible for carrying out the audit of the consolidated financial statements since April 13, 2018. Ms. Franziska Schenk and Dr. Markus Zeimes were responsible for carrying out the 2021 audit of the consolidated financial statements. Dr. Markus Zeimes first signed the Independent Auditor's Report on December 31, 2018.

The following fees were recognized as expenses the given fiscal year for the services provided by KPMG AG:

Auditor's fees

	2020	2021
	€ million	€ million
Audit services	2.3	3.8
Other attestation services	0.2	0.2
Tax services	0.1	0.2
Other services	0.1	0.2
Total	2.7	4.4

The fees for audit services for fiscal 2021 mainly comprise those for the statutory audit of the consolidated financial statements of the Covestro Group, the review of the Covestro Group's interim report for the period ended June 30, 2021, and the audit of the financial statements of Covestro AG and its subsidiaries in Germany, including audits relating to the German Energy Industry Act (EnWG) and similar standards. The increase in fees for audit services over the previous year is mainly due to audit services performed in Germany and elsewhere for the acquisition of the Resins & Functional Materials (RFM) business from Koninklijke DSM N.V., Heerlen (Netherlands), and audit services in connection with the reorganization of the Group as part of the LEAP transformation project.

The fees for other attestation services in fiscal 2021 particularly contain the assurance of sustainability information and special audits concerning energy related topics. Tax services mainly include a slight year-over-year increase in the scope of consultancy services for the preparation of tax returns and matters related to VAT. Other services essentially comprise fees for IT security audits, which in fiscal 2021 additionally included cloud and similar environments as well as analyses relating to sustainability reporting.

30. Events after the End of the Reporting Period

No events have occurred since January 1, 2022, that have a material impact on the net assets, financial position and results of operations of the Covestro Group.

Leverkusen, February 18, 2022

Covestro AG

The Board of Management

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Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles for financial reporting, the consolidated financial statements give a true and fair view of the net assets, financial position, and results of operations of the Covestro Group, and the Group Management Report, which has been combined with the Management Report of Covestro AG, includes a fair review of the development and performance of the business and the position of the Covestro Group and Covestro AG, together with a description of the principal opportunities and risks associated with the expected development of the Covestro Group and Covestro AG.

Leverkusen, February 18, 2022

Covestro AG

The Board of Management

Dr. Markus Steilemann
(Chairman)

Sucheta Govil

Dr. Klaus Schäfer

Dr. Thomas Toepfer

Independent Auditor's Report

To Covestro AG, Leverkusen

Report on the Audit of the Consolidated Financial Statements and of the Group Management Report

Opinions

We have audited the consolidated financial statements of Covestro AG, Leverkusen, and its subsidiaries (the Group), which comprise the income statement, the consolidated statement of profit or loss and other comprehensive income of the Covestro Group for the financial year from January 1 to December 31, 2021, the statement of financial position of the Covestro Group as of December 31, 2021, the statement of cash flows and the statement of changes in equity of the Covestro Group for the financial year from January 1 to December 31, 2021, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Covestro AG, which is combined with the management report of the Company, including the Group's non-financial statement pursuant to Section 315b (1) and Section 315c HGB [*Handelsgesetzbuch: German Commercial Code*] and the compensation report, including the related disclosures, included in the "Compensation Report" section of the group management report for the financial year from January 1 to December 31, 2021.

In accordance with German legal requirements, we have not audited the content of those components of the group management report specified in the "Other Information" section of our auditor's report.

The group management report contains cross-references that are not required by law and which are marked as unaudited. In accordance with German legal requirements, we have not audited the cross-references and the information to which the cross-references refer.

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 IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as of December 31, 2021, and of its financial performance for the financial year from January 1 to December 31, 2021, 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. Our opinion on the group management report does not cover the content of those components of the group management report specified in the "Other Information" section of the auditor's report. The group management report contains cross-references that are not required by law and which are marked as unaudited. Our audit opinion does not extend to the cross-references and the information to which the cross-references refer.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and the group management report..

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Section 317 HGB and the EU Audit Regulation No. 537/2014 (referred to subsequently as "EU Audit Regulation") 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). We performed the audit of the consolidated financial statements in supplementary compliance with the International Standards on Auditing (ISAs). Our responsibilities under those requirements, principles and standards 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 European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2)(f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Note on emphasis of matter Inherent risk due to uncertainties regarding the legal conformity of the interpretation of the EU Taxonomy Regulation

Please refer to management's comments in the "EU taxonomy" section of the non-financial statement pursuant to Section 315b (1) HGB contained in the section "Disclosures on sustainability reporting" of the group management report. That section describes that the EU Taxonomy Regulation and the delegated acts issued in this context contain formulations and terms that remain subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Management explains how they have made the necessary interpretations of the EU Taxonomy Regulation and the delegated acts adopted in this context. Due to the inherent risk that abstract legal terms can be interpreted differently, the legal conformity of the interpretation is subject to uncertainties. We have not modified our opinion on the group management report in respect of this matter.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2021. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Acquisition of the Resins & Functional Materials (RFM) division from Koninklijke DSM N.V., Heerlen, Netherlands

Please refer to note 3 to the consolidated financial statements for information on the accounting policies applied. Information on the acquisition of RFM can be found under note 5 to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

With effect from April 1, 2021, Covestro completed the acquisition of the Resins & Functional Materials (RFM) business division from Koninklijke DSM N.V., Heerlen, Netherlands. The total consideration transferred equaled EUR 1,544 million. Taking into account the acquired net assets, goodwill amounted to EUR 489 million.

At the acquisition date, the identifiable assets acquired and liabilities assumed were recognized at fair value in accordance with IFRS 3. The identified assets include especially intangible assets such as customer relationships and technologies, as well as property, plant and equipment and inventories. The Company engaged independent experts to identify and measure the identifiable assets acquired and the liabilities assumed.

The identification and measurement of assets acquired and liabilities assumed are complex and based on assumptions of the Management Board that require judgment. In order to identify the intangible assets acquired, assumptions were made regarding the identification criteria, particularly with regard to judging Covestro's right of disposal and separability. The significant assumptions for measurement include revenue and margin performance in the acquired operation's corporate planning, synergy expectations, the cost of capital, royalty rates, maturities, reproduction costs and remaining useful lives.

There is the risk for the consolidated financial statements that the intangible assets acquired are identified improperly and the intangible assets and property, plant and equipment acquired are measured inaccurately. There is also the risk that the disclosures in the notes to the consolidated financial statements are not complete and accurate.

OUR AUDIT APPROACH

We first gained an understanding of the acquisition by consulting Covestro employees of the finance department and by evaluating the relevant agreements. With the involvement of our own valuation specialists, we also assessed the appropriateness of significant assumptions as well as the identification procedures and valuation methods.

We assessed the competency, skills and objectivity of the independent experts engaged by the Company. Furthermore, we assessed the process of identification of assets acquired and liabilities assumed for compliance with the requirements of IFRS 3 based on our knowledge of RFM's business model. We investigated the valuation methods used for their compliance with the accounting policies.

We discussed the fulfillment of the identification criteria for the acquired intangible assets – customer relationships, technologies and trademarks – with external experts consulted by the Company and Covestro employees from the finance department. In addition, we assessed the existence of the necessary identification criteria, in particular Covestro's right of disposal and separability.

We discussed the expected revenue and margin performance with the external experts engaged by the Company as well as with Covestro's finance department. We also examined the consistency of assumptions with external market assessments for peer group companies. The synergy expectations were discussed by the external expert with the Covestro staff responsible for planning, and it was assessed to what extent they could also be realized by regular market participants. We evaluated these assessments and the related reasoning. We validated the assumptions and data underlying the cost of capital, in particular the risk-free rate, the market risk premium and the beta coefficient, with our own assumptions and publicly available data.

The royalty rates and useful lives used to measure intangible assets and the reproduction costs as well as remaining useful lives used to measure property, plant and equipment were examined for their appropriateness by interviewing the external experts and comparison with our own analyses. To assess computational accuracy, we verified selected calculations based on risk criteria and compared these with the results of our own calculations.

Finally, we assessed whether the disclosures in the notes regarding the acquisition of RFM are complete and appropriate.

OUR OBSERVATIONS

The acquired intangible assets have been identified properly using the criteria applied by management and in line with the applicable accounting standards. The calculation methods used for measuring the acquired intangible assets and property, plant and equipment are appropriate and consistent with the applicable accounting standards. The Company's significant assumptions and data used for identifying intangible assets and measuring intangible assets and property, plant and equipment acquired are within an acceptable range and are reasonable overall. They have been completely and properly presented in the notes to the consolidated financial statements.

Changes in segment reporting

For segment reporting, please refer to note 4 to the consolidated financial statements. For information on goodwill, please refer to note 13 to the consolidated financial statements. Further information on the segments is provided in the combined management report in the "Performance of the reportable segments" section.

THE FINANCIAL STATEMENT RISK

The management of Covestro AG changed the internal management and reporting system with effect from July 1, 2021. This had consequences with regard to the reported segments, the carrying amount of the (new) goodwill carrying cash-generating units and the allocation of goodwill to cash-generating units.

The management approach to identifying segments required by IFRS 8, the resulting definition of cash-generating units and the allocation of goodwill to (new) goodwill carrying cash-generating units require a great degree of judgment. In addition, the reorganization of the reporting structure and allocation of carrying amounts to cash-generating units are highly complex.

There is a risk for the financial statements that segment reporting is not properly presented and the effects of (new) goodwill carrying cash-generating units on goodwill impairment testing are not properly implemented.

OUR AUDIT APPROACH

First, during our audit, we assessed, among other things, whether segment reporting from July 1, 2021, is consistent with the internal reporting and management structures as required by the management approach. In particular, we assessed the internal reporting to the Board of Management and, by inspecting minutes of board meetings, verified that the new segment structure is in line with the internal regular reporting to the full Board of Management (Chief Operating Decision Maker).

In addition, with the involvement of IT specialists, we verified the implementation of the new reporting structure in the IT systems and the calculation of comparative figures for the prior year, and assessed the presentation of segment reporting in the notes to the consolidated financial statements and the combined management report.

Furthermore, we considered the definition of the (new) goodwill carrying cash-generating units and assessed whether these are in line with the Company's internal monitoring of goodwill. In addition, we verified that the reallocation of goodwill according to relative fair values was carried out appropriately with the involvement of our own valuation specialists.

OUR OBSERVATIONS

The reorganization of the segment structure and associated changes to segment reporting as well as redefinition of the goodwill carrying cash-generating units are reasonable und appropriate.

Impairment testing of goodwill

Please refer to note 3 to the consolidated financial statements for information on the accounting policies applied and the assumptions used. Disclosures on the amount of goodwill can be found under note 13 to the consolidated financial statements and information on the financial performance of the operating segments can be found in the "Performance of the reportable segments" section of the group management report.

THE FINANCIAL STATEMENT RISK

Goodwill amounted to EUR 757 million as of December 31, 2021, thus representing 4.8% of total assets.

Goodwill is tested for impairment annually, irrespective of any indication of impairment. If impairment triggers arise during the financial year, an indicator-based impairment test is also carried out during the year. For goodwill impairment testing, the carrying amount is compared with the recoverable amount of each cash-generating unit. If the carrying amount exceeds the recoverable amount, an impairment loss is recognized. The recoverable amount is the higher of fair value less costs to sell and value in use of the cash-generating units. Goodwill was tested for impairment as of October 1, 2021.

Impairment testing at the level of cash-generating units is complex and based on a range of assumptions that require judgment. These include the expected business and earnings performance of the respective cash-generating units over the planning horizon, the assumed long-term growth rates and the discount rate used. This also affects the reallocation of goodwill, as the latter was made on the basis of relative fair value.

There is the risk for the consolidated financial statements that an existing impairment was not identified. There is also the risk that the related disclosures in the notes are not complete and appropriate.

OUR AUDIT APPROACH

First, we obtained an understanding of the process for impairment testing of goodwill through explanations provided by accounting staff, with the involvement of the controlling department, and an assessment of the Company's documentation.

Subsequently, we assessed the appropriateness of significant assumptions and the Company's calculation method used for the reallocation of goodwill as well as indicator-based and annual impairment testing with the involvement of our valuation experts. To this end, we discussed the expected development of business and earnings as well as the assumed long-term growth rates with those responsible for planning. We also reconciled this information with internally available forecasts and with the budget prepared by the Management Board and approved by the Supervisory Board. We also evaluated the consistency of the assumptions using external market assessments. The main sources used were economic reports from recognized industry institutions and assessments by analysts.

We also confirmed the accuracy of the Company's previous forecasts by comparing the budgets of previous financial years with actual results and by analyzing deviations. We compared the assumptions and data underlying the discount rate, in particular the risk-free rate, the market risk premium and the beta coefficient, with our own assumptions and publicly available data.

We verified the Company's calculations to ensure the computational accuracy of the valuation method used.

In order to take account of the existing forecast uncertainty for impairment testing, we examined the effects of possible changes in the discount rate, earnings performance and the long-term growth rate on the recoverable amount by calculating comparative figures for alternative scenarios and comparing them with the values stated by the Company (sensitivity analysis).

Finally, we assessed whether the disclosures in the notes regarding impairment of goodwill are appropriate. This also included an assessment of the appropriateness of disclosures in the notes in accordance with IAS 36.134(f) on sensitivity in the event of a reasonably possible change in key assumptions used for measurement.

OUR OBSERVATIONS

The calculation method used for impairment testing of goodwill is appropriate and in line with the applicable accounting policies. The Company's assumptions and data used for measurement are within an acceptable range and are reasonable overall. The related disclosures in the notes are complete and appropriate.

Other Information

Management and/or the Supervisory Board are/is responsible for the other information. The other information comprises the following components of the group management report, whose content was not audited:

- the declaration on corporate governance included in the section of the same name in the group management report,
- the information in the non-financial statement contained in the "Sustainability in the supply chain" section of the group management report and marked as unaudited, and
- information extraneous to management reports and marked as unaudited.

The other information also includes the remaining parts of the annual report. The other information does not include the consolidated financial statements, the group management report information audited for content and our auditor's report thereon.

Our 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 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 information audited for content or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

As part of a separate engagement, we performed an assurance engagement on the supplementary sustainability information. Please refer to our assurance report dated February 21, 2022, for information on the nature, scope and findings of this assurance engagement.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

Management is responsible for the preparation of consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they 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, management is 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 unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is 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, management is 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.

Furthermore, the management and the supervisory board are responsible for the preparation of the remuneration report contained in a separate section of the group management report, including the related disclosures, in accordance with the requirements of Section 162 AktG. They are also responsible for such internal control as they have determined necessary to enable the preparation of the remuneration report that is free from material misstatement, whether due to fraud or error.

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 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 Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) and supplementary compliance with the ISAs 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 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 controls.
- 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 opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of management's 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 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 IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express 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 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 management in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the

significant assumptions used by management 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 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.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB

We have performed assurance work in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the electronic file " „covestroag-2021-12-31-de (2).zip" (SHA256-Hashwert: 6e5d50b8a14af18ec8a6299495ccffc4af6836a25ad733482c78b47862c7e1bc) made available and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the electronic file made available, identified above and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from January 1 to December 31, 2021, contained in the "Report on the Audit of the Consolidated Financial Statements and the Group Management Report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the file made available and identified above in accordance with Section 317 (3a) HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in accordance with Section 317 (3a) HGB (IDW AsS 410 (10.2021)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibility in accordance therewith is further described below. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QS 1).

The Company's management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the group management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the Company's management is responsible for such internal controls that they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format.

The supervisory board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

- Obtain an understanding of internal control relevant to the assessment on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e. whether the file made available containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, on the technical specification for this electronic file.
- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and the audited group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor at the annual general meeting on April 16, 2021. We were engaged by the audit committee of the supervisory board on November 4, 2021. We have been the group auditor of Covestro AG without interruption since financial year 2018.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

Other Matter – Use of the Auditor's Report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited group management report as well as the examined ESEF documents. The consolidated financial statements and group management report converted to the ESEF format – including the versions to be published in the German Federal Gazette [Bundesanzeiger] – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the examined ESEF documents provided in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Dr. Markus Zeimes.

Düsseldorf, February 21, 2022

KPMG AG
Wirtschaftsprüfungsgesellschaft

Dr. Zeimes
Wirtschaftsprüfer
[German Public Auditor]

Schenk
Wirtschaftsprüferin
[German Public Auditor]

Limited Assurance Report of the Independent Auditor regarding the supplementary sustainability information¹

To the Management Board of Covestro AG, Leverkusen

We have performed an independent limited assurance engagement on the separately marked sections for supplementary sustainability information in the "Covestro Annual Report 2021" (hereinafter: "supplementary sustainability information") of Covestro AG, Leverkusen, Germany for the period from January 1 to December 31, 2021.

Management's Responsibility

The legal representatives of the Company are responsible for the preparation of the supplementary sustainability information in accordance with the reporting criteria. Covestro AG applies the principles and standard disclosures specified in the Global Reporting Initiative (GRI) Sustainability Reporting Standards in conjunction with the Corporate Accounting and Reporting Standard (Scope 1 and 2) of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) as reporting criteria (hereinafter: "Reporting Criteria").

This responsibility of the legal representatives includes the selection and application of appropriate methods to prepare the supplementary sustainability information and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. Furthermore, the legal representatives are responsible for the internal controls they deem necessary for the preparation of the supplementary sustainability information that is free of – intended or unintended – material misstatements.

Practitioner's Responsibility

It is our responsibility to express a conclusion on the supplementary sustainability information based on our work performed within a limited assurance engagement.

We conducted our work in the form of a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", published by IAASB.

Accordingly, we have to plan and perform the assurance engagement in such a way that we obtain limited assurance as to whether any matters have come to our attention that cause us to believe that the supplementary sustainability information of the Company for the period from January 1 to December 31, 2021 has not been prepared, in all material respects in accordance with the aforementioned Reporting Criteria. We do not, however, issue a separate conclusion for each disclosure. As the assurance procedures performed in a limited assurance engagement are less comprehensive than in a reasonable assurance engagement, the level of assurance obtained is substantially lower. The choice of assurance procedures is subject to the auditor's own judgement.

Within the scope of our engagement we performed, amongst others, the following procedures:

- Inquiries of group-level personnel who are responsible for the materiality analysis in order to understand the processes for determining material topics and respective reporting boundaries for Covestro AG

¹ Our engagement applied to the German version of the Covestro Annual Report 2021. This text is a translation of the Independent Assurance Report issued in German, whereas the German text is authoritative.

- A risk analysis, including media research, to identify relevant information on Covestro AG's sustainability performance in the reporting period
- Evaluation of the design and the implementation of systems and processes for identifying, processing, and monitoring sustainability performance data and metrics within the scope of the audit, including the consolidation of data
- Inquiries of group-level personnel who are responsible for determining disclosures on concepts, due diligence processes, results and risks, performing internal control functions and consolidating disclosures
- Inspection of selected internal and external documents
- Analytical procedures for the evaluation of data and of the trends of quantitative disclosures as reported at group level by all sites
- Assessment of local data collection, validation, and reporting processes and the reliability of reported data through a sample survey at Dormagen (Germany), Caojing (China), Baytown (USA), Markt Bibart (Germany), Ankleshwar (India), Niihama (Japan), Meppen (Germany), Maasvlakte (Netherlands), and Waalwijk (Netherlands).
- Assessment of the overall presentation of the disclosures

In our opinion, we obtained sufficient and appropriate evidence for reaching a conclusion for the assurance engagement.

Independence and Quality Assurance on the Part of the Auditing Firm

In performing this engagement, we applied the legal provisions and professional pronouncements regarding independence and quality assurance, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the quality assurance standard of the German Institute of Public Auditors (Institut der Wirtschaftsprüfer, IDW) regarding quality assurance requirements in audit practice (IDW QS 1).

Conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the separately marked sections for supplementary sustainability information in the "Covestro Annual Report 2021" of Covestro AG for the period from January 1 to December 31, 2021 has not been prepared, in all material respects, in accordance with the Reporting Criteria.

Restriction of Use/General Engagement Terms

This assurance report is issued for purposes of the Management Board of Covestro AG, Leverkusen, only. We assume no responsibility with regard to any third parties.

Our assignment for the Management Board of Covestro AG, Leverkusen, and professional liability as described above was governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungs-gesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (https://www.kpmg.de/bescheinigungen/lib/aab_english.pdf). By reading and using the information contained in this assurance report, each recipient confirms notice of the provisions contained there-in including the limitation of our liability as stipulated in No. 9 and accepts the validity of the General Engagement Terms with respect to us.

Cologne, February 21, 2022

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Gerd Krause

ppa. Claudia Dietrich

Glossary

A

ADR/American Depository Receipt

A depositary receipt issued by U.S. banks that documents ownership of a certain number of deposited shares of a foreign company and is traded on U.S. stock markets as representation of the original shares.

AktG/German Stock Corporation Act

Stipulates the legal provisions pertaining to German stock corporations.

APAC

Comprises all countries in the Asia and Pacific region.

C

Capital Employed

Capital employed is the sum of noncurrent and current assets less non-interest-bearing liabilities such as trade accounts payable.

Carbon Productivity

The value generated per carbon unit used (e.g., in the form of fossil raw materials such as coal, oil and natural gas). Measuring carbon productivity is intended to promote a sustainable and optimal use of carbon.

Circular Economy

A regenerative economic system in which resource input, waste production, emissions, and energy consumption are minimized based on long-lasting and closed material and energy cycles.

Core Volume Growth

Core volume growth refers to the core products in the Performance Materials and Solutions & Specialties. It is calculated as the percentage change in externally sold volumes compared with the

prior year. Covestro also takes advantage of business opportunities outside its core business, for example the sale of precursors and by-products such as hydrochloric acid, sodium hydroxide solution, and styrene. These transactions are not included in core volume growth.

Cost of Capital for Impairment Testing

Weighted average cost of equity and debt that reflects the risk/return profile of the Covestro Group on the one hand and a specific capital structure of comparable companies (Covestro's peer group) on the other. This cost of capital, which is primarily derived from capital market information, is used for impairment testing according to IFRSs.

COVeC approach

Covestro venture capital approach in which Covestro invests in start-ups with innovative products, solutions, or business models. Covestro aims to actively support these new companies wherever they offer value added.

Covestment

Share-based participation program in which 99% of all employees worldwide can acquire Covestro shares at a discount.

D

DRS/German Accounting Standards

Pronouncements of the German Accounting Standards Committee e. V., which substantiate the HGB requirements in reference to the application of the Group accounting principles.

Due Diligence

Information on the processes for identifying, preventing, and mitigating the actual or possible negative impact on nonfinancial factors.

E

EBIT / Earnings Before Interest and Taxes

Income after income taxes plus financial result and income tax expense.

EBITDA / Earnings Before Interest, Taxes, Depreciation and Amortization

EBIT plus depreciation and amortization of property, plant, equipment, and intangible assets.

EcoVadis

Rating agency that evaluates the degree to which supplier business practices are aligned with sustainability principles.

EMLA

Comprises all countries in Europe, the Middle East, Africa and Latin America (excluding Mexico).

EPS/Earnings per Share

Net income divided by the weighted average number of outstanding shares in the reporting period.

EURO STOXX 50

European stock index that reflects the share price performance of the 50 most important and highest revenue companies in Europe.

F

FOCF / Free Operating Cash Flow

Operating cash flows (pursuant to IAS 7) less cash outflows for additions to property, plant, equipment and intangible assets.

G**GCGC/German Corporate Governance Code**

A set of regulations compiled by the Government Commission on the German Corporate Governance Code in respect of responsible corporate governance, which contains recommendations and suggestions for the management and oversight of listed corporations in Germany.

GHG Protocol/Greenhouse Gas Protocol

International accounting system for greenhouse gas emissions developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

GPS/Global Product Strategy

Initiative of the International Council of Chemical Associations (ICCA) with the aim of embedding uniform global standards for product safety in the chemical industry.

GRI/Global Reporting Initiative

Guidelines for the preparation of sustainability reports by companies, governments and non-governmental organizations (NGOs).

H**HDI/Hexamethylenediisocyanate**

A chemical compound from the class of aliphatic isocyanates, primarily used in polyurethane coating systems.

HGB/German Commercial Code

Comprises the majority of German accounting legislation.

HSEQ/Health, Safety, Environment, Energy, and Quality

Health, safety, environment, energy, and quality.

I**IAS/Accounting Standards**

International accounting standards as endorsed by the European Union respectively published by the IASB or the IFRS IC.

IASB/International Accounting Standards Board

The International Accounting Standards Board is an independent, private-sector body that develops and approves the International Financial Reporting Standards (IFRSs).

ICS/ Internal Control System

Internal control system to ensure compliance with directives by means of technical and organizational rules.

IDW/Institut der Wirtschaftsprüfer in Deutschland e. V.

A professional association of German Public Auditors and German Public Audit Firms that represents the interests of its members and supports their work.

IFRSs/International Financial Reporting Standards

International accounting standards as endorsed by the European Union respectively published by the IASB or the IFRS IC.

IPDI/isophorone diisocyanate

A chemical compound from the class of aliphatic isocyanates, primarily used in polyurethane coating systems.

L**LGBTIQ**

International abbreviation for lesbian, gay, bisexual, trans, intersex, and queer people.

LoPC/Loss of Primary Containment

Leaks of chemicals in amounts above defined thresholds leaking from their primary containers, such as pipelines, pumps, tanks and drums.

LTRIR

Lost time recordable incident rate.

M**Materiality Analysis**

A materiality analysis enables companies to systematically identify the most important sustainability issues from the internal and external perspective.

MDI/Diphenylmethane Diisocyanate

A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams.

N**NA**

Region comprising Canada, Mexico, and the United States.

Net Financial Debt

Interest-bearing liabilities (excluding pension obligations) less liquid assets.

Net Income

Income after income taxes that is attributable to Covestro AG shareholders.

NOPAT/Net Operating Profit after Taxes

Operating result (EBIT) after imputed income taxes.

P**PMDI/Polymeric Diphenylmethane Diisocyanate**

A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams.

PO/Propylene Oxide

A chemical compound from the class of epoxies used in the production of polyurethanes.

Prisma

Prisma is a share-based compensation program with a four-year performance period for senior executives and other managerial employees.

PSP / Profit Sharing Plan

Covestro PSP is the Group's short-term variable compensation system. It is based exclusively on the target attainment of the relevant Covestro performance indicators (core volume growth, FOCF, ROCE).

R**REACH Regulation**

REACH stands for Registration, Evaluation, Authorisation, and Restriction of Chemicals. Regulation (EC) No. 1907/2006, which entered into force in 2007, standardizes EU chemicals law.

Responsible Care™ Initiative

Initiative by the German Chemical Industry Association (VCI) aimed at continuously improving health, environmental protection and safety in its member states.

RIR / Recordable Incident Rate

Total number of recordable workplace accidents and illnesses per 200,000 working hours.

ROCE / Return on Capital Employed

Ratio of operating result after imputed income taxes to capital employed.

S**Scope 1, Scope 2, Scope 3****Emissions**

The GHG Protocol distinguishes between direct emissions of greenhouse gases (Scope 1), emissions from the generation of externally purchased energy (Scope 2), and all other emissions arising in the value chain either before or after our business activities (Scope 3).

SDGs

The 17 United Nations Sustainable Development Goals were ratified by all UN member states and entered into force on January 1, 2016. Their objective is to combat global poverty, protect the planet, and secure peace and prosperity for all.

Stakeholders

Internal and external interest groups which are directly or indirectly impacted by the company's corporate activities and/or may be so in the future.

STOXX Europe 600 Chemicals

A sector index provided by STOXX. The STOXX Europe 600 is comprised of 600 companies across Europe.

T**TCFD / Task Force on Climate-related Financial Disclosures**

The TCFD was formed by the Financial Stability Board to develop a uniform framework for reporting on climate-related opportunities and risks.

TDI / Toluylene Diisocyanate

A chemical compound from the class of aromatic isocyanates, primarily used in polyurethane foams and coating systems.

TfS / Together for Sustainability

An initiative undertaken by various companies in the chemical industry to standardize supplier assessments globally in order to improve sustainability practices in the supply chain.

U**UN Global Compact**

The world's largest responsible corporate governance initiative. The member companies undertake to implement 10 universal principles and regularly document their progress.

V**Value Contribution**

The difference between the operating result after imputed income taxes and the cost of capital. A positive value contribution means that value has been created.

VCI / Verband der Chemischen Industrie

German chemical industry association.

W**WACC / Weighted Average Cost of Capital**

Weighted average cost of capital reflecting the expected return on the company's equity and debt capital. Used for the internal measurement of the absolute value contribution.

Segment and Quarterly Overview

Segment information 4th quarter

	Performance Materials		Solutions & Specialties		Others/Consolidation		Covestro Group	
	4th quarter 2020 ^{1,2}	4th quarter 2021	4th quarter 2020 ^{1,2}	4th quarter 2021	4th quarter 2020 ^{1,2}	4th quarter 2021	4th quarter 2020	4th quarter 2021
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Sales (external)	1,594	2,259	1,371	2,005	42	74	3,007	4,338
Intersegment sales	257	596	6	8	(263)	(604)	–	–
Sales (total)	1,851	2,855	1,377	2,013	(221)	(530)	3,007	4,338
Change in sales								
Volume		+0.5%		-3.4%		+75.3%	+4.7%	-0.2%
Price		+37.6%		+25.6%		0.0%	+5.4%	+31.6%
Currency		+3.6%		+4.1%		+0.9%	-4.0%	+3.8%
Portfolio		0.0%		+19.9%		0.0%	-1.1%	+9.1%
Core volume growth³	-0.8%		+13.0%				+1.7%	+4.6%
Sales by region								
EMLA	759	1,039	499	722	30	61	1,288	1,822
NA	340	582	305	457	9	10	654	1,049
APAC	495	638	567	826	3	3	1,065	1,467
EBITDA⁴	465	590	194	112	(22)	(39)	637	663
EBIT ⁴	321	445	133	41	(22)	(41)	432	445
Depreciation, amortization, impairment losses and impairment loss reversals	144	145	61	71	–	2	205	218
Cash flows from operating activities	327	665	284	175	24	(192)	635	648
Cash outflows for additions to property, plant, equipment and intangible assets	169	168	70	122	2	2	241	292
Free operating cash flow	158	497	214	53	22	(194)	394	356
Trade working capital ⁵	970	1,392	978	1,560	1	–	1,949	2,952

¹ Reference information for the segments based on fiscal 2019 is not presented here due to the new organizational structure.

² The values were recalculated retroactively as of October 1, 2021, based on a change in the underlying market prices for compensation for transactions between the Performance Materials and Solutions & Specialties segments and the reference information restated accordingly.

³ Calculated on the basis of the definition of the core business effective March 31, 2021.

⁴ The earnings of the Performance Materials and Solutions & Specialties reportable segments include the effect on earnings of intersegment sales.

⁵ Trade working capital includes inventories plus trade accounts receivable and contract assets, less trade accounts payable, contract liabilities, and refund liabilities as of December 31, 2020/2021.

Segment information full year

	Performance Materials		Solutions & Specialties		Others/Consolidation		Covestro Group	
	2020 ^{1,2}	2021 ²	2020 ^{1,2}	2021 ²	2020 ^{1,2}	2021 ²	2020	2021
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Sales (external)	5,468	8,142	5,060	7,554	178	207	10,706	15,903
Intersegment sales	947	2,195	23	27	(970)	(2,222)	–	–
Sales (total)	6,415	10,337	5,083	7,581	(792)	(2,015)	10,706	15,903
Change in sales								
Volume		+1.6%		+11.8%		+17.0%	-5.1%	+6.5%
Price		+48.1%		+21.3%		0.0%	-5.7%	+34.7%
Currency		-0.8%		-0.9%		-0.7%	-1.6%	-0.8%
Portfolio		0.0%		+17.1%		0.0%	-1.3%	+8.1%
Core volume growth³		+0.3%		+26.0%			-5.6%	+10.0%
Sales by region								
EMLA	2,572	3,878	1,894	2,835	134	163	4,600	6,876
NA	1,347	1,926	1,175	1,594	32	33	2,554	3,553
APAC	1,549	2,338	1,991	3,125	12	11	3,552	5,474
EBITDA⁴	896	2,572	743	751	(167)	(238)	1,472	3,085
EBIT ⁴	323	2,003	545	503	(172)	(244)	696	2,262
Depreciation, amortization, impairment losses and impairment loss reversals	573	569	198	248	5	6	776	823
Cash flows from operating activities	674	1,875	649	418	(89)	(100)	1,234	2,193
Cash outflows for additions to property, plant, equipment and intangible assets	498	488	203	273	3	3	704	764
Free operating cash flow	176	1,387	446	145	(92)	(103)	530	1,429
Trade working capital ⁵	970	1,392	978	1,560	1	–	1,949	2,952

¹ Reference information for the segments based on fiscal 2019 is not presented here due to the new organizational structure.

² The values were recalculated retroactively as of October 1, 2021, based on a change in the underlying market prices for compensation for transactions between the Performance Materials and Solutions & Specialties segments and the reference information restated accordingly.

³ Calculated on the basis of the definition of the core business effective March 31, 2021.

⁴ The earnings of the Performance Materials and Solutions & Specialties reportable segments include the effect on earnings of intersegment sales.

⁵ Trade working capital includes inventories plus trade accounts receivable and contract assets, less trade accounts payable, contract liabilities, and refund liabilities as of December 31, 2020/2021.

Quarterly Overview

	1st quarter 2020¹	2nd quarter 2020¹	3rd quarter 2020¹	4th quarter 2020¹	1st quarter 2021¹	2nd quarter 2021¹	3rd quarter 2021¹	4th quarter 2021
	€ million	€ million						
Sales (external)	2,783	2,156	2,760	3,007	3,307	3,956	4,302	4,338
Performance Materials	1,383	1,055	1,436	1,594	1,740	1,957	2,186	2,259
Solutions & Specialties	1,341	1,060	1,288	1,371	1,529	1,951	2,069	2,005
Core volume growth²	-4.1%	-22.7%	+2.9%	+1.7%	+5.3%	+35.0%	+0.8%	+4.6%
EBITDA	254	125	456	637	743	817	862	663
Performance Materials ³	115	37	279	465	630	644	708	590
Solutions & Specialties ³	209	123	217	194	181	237	221	112
EBIT	67	(68)	265	432	556	607	654	445
Performance Materials ³	(26)	(107)	135	321	489	502	567	445
Solutions & Specialties ³	165	75	172	133	138	170	154	41
Financial result	(39)	(17)	(22)	(13)	(29)	(18)	(20)	(10)
Income before income taxes	28	(85)	243	419	527	589	634	435
Income after taxes	21	(53)	180	306	395	450	473	301
Net income	20	(52)	179	312	393	449	472	302
Cash flows from operating activities	(110)	171	538	635	428	553	564	648
Cash outflows for additions to property, plant, equipment and intangible assets	139	147	177	241	110	179	183	292
Free operating cash flow	(249)	24	361	394	318	374	381	356

¹ The values were recalculated retroactively as of October 1, 2021, based on a change in the underlying market prices for compensation for transactions between the Performance Materials and Solutions & Specialties segments and the reference information restated accordingly.

² Calculated on the basis of the definition of the core business effective March 31, 2021.

³ The earnings of the Performance Materials and Solutions & Specialties reportable segments include the effect on earnings of intersegment sales.

Five-Year Summary

Five-Year Summary

	2017 € million	2018 € million	2019 € million	2020 € million	2021 € million
Core volume growth¹	+3.4%	+1.5%	+2.0%	-5.6%	+10.0%
Sales (external)	14,138	14,616	12,412	10,706	15,903
Performance Materials ²	7,606	7,757	6,173	5,468	8,142
Solutions & Specialties ²	6,370	6,673	6,069	5,060	7,554
EBITDA	3,435	3,200	1,604	1,472	3,085
EBIT	2,808	2,580	852	696	2,262
Financial result	(150)	(104)	(91)	(91)	(77)
Net income	2,009	1,823	552	459	1,616
Earnings per share (€) ³	9.93	9.46	3.02	2.48	8.37
Operating cash flows	2,361	2,376	1,383	1,234	2,193
Cash outflows for additions to property, plant, equipment and intangible assets	518	707	910	704	764
Free operating cash flow	1,843	1,669	473	530	1,429
Trade working capital ⁴	2,177	2,353	1,965	1,949	2,952
Net financial debt	283	348	989	356	1,405
ROCE	+33.4%	+29.5%	+8.4%	+7.0%	+19.5%
Employees (in FTE)	16,176	16,770	17,201	16,501	17,909

¹ Values calculated retroactively based on the definition of the core business effective March 31 of the respective subsequent year.

² Reference information for the segments for the period from fiscal 2017–2019 are based on unaudited figures due to the new organizational structure.

³ Figures based on weighted average number of voting shares outstanding that were subject to relevant changes resulting from, among other factors, the share buyback program of November 21, 2017, through December 4, 2018, and the capital increase on October 19, 2020.

⁴ Trade working capital includes inventories plus trade accounts receivable and contract assets, less trade accounts payable, contract liabilities, and refund liabilities as of December 31, 2018 to 2021. In the year 2017, trade working capital comprised inventories plus trade accounts receivable, less trade accounts payable. Reference information for 2018 and 2019 was restated accordingly, see note 4 "Change in Presentation of Rebates Granted to Customers and Trade Working Capital" in the Annual Report 2020.

FINANCIAL CALENDAR

ANNUAL GENERAL MEETING 2022

April 21, 2022

QUARTERLY STATEMENT FIRST QUARTER 2022

May 3, 2022

HALF-YEAR FINANCIAL REPORT 2022

August 2, 2022

QUARTERLY STATEMENT THIRD QUARTER 2022 **October 25, 2022**

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