FUNDAMENTAL INFORMATION ABOUT THE GROUP

THE GROUP

Merck KGaA, Darmstadt, Germany, is a global corporate group headquartered in Darmstadt, Germany. With a history dating back nearly 350 years, it is the world's oldest pharmaceutical and chemical company. The Group holds the global rights to the Merck name and brand. The only exceptions are Canada and the United States, where the company operates as EMD Serono, EMD Millipore und EMD Performance Materials.

The Group's product portfolio ranges from innovative pharmaceuticals and biopharmaceutical products, to specialty chemicals, high-tech materials and life science tools. Until December 31, 2014, in other words the period covered by this Annual Report, Merck KGaA, Darmstadt, Germany, used a reporting structure consisting of four divisions: the Biopharmaceuticals division, Consumer Health, Performance Materials and the Life Science division. The following presentation also reflects this structure.

In line with its strategic direction effective January 1, 2015, the Group is organized into three business sectors: Healthcare, Performance Materials and Life Science, which comprise the Group's six businesses. This structure will be used in the financial reports of the Group as of January 1, 2015 and will be reflected for the first time in the report on the first quarter of 2015.

BIOPHARMACEUTICALS

The Biopharmaceuticals division discovers, develops, manufactures and markets innovative pharmaceutical and biological prescription drugs to treat cancer, multiple sclerosis (MS), infertility and growth disorders, as well as certain cardiovascular and metabolic diseases. As the company's largest division, in 2014 the Biopharmaceuticals division generated 51% of Group sales and 51% of EBITDA pre one-time items (excluding Corporate and Other). The present Biopharmaceuticals division was formed in 2007 with the acquisition of the Swiss biopharmaceutical company Serono SA, which was integrated stepwise into the prescription drugs business. With headquarters in Darmstadt, Germany, the Biopharmaceuticals division offers leading brands in specialty medicine indications.

The Biopharmaceuticals division commercializes its products worldwide and has a strong presence in established markets. The Biopharmaceuticals division's products are available in various countries and regions of the world under different brand names. The regions of Europe and North America contributed 64% of divisional sales in 2014. In recent years, the Biopharmaceuticals division has steadily expanded its presence in the Emerging Markets region, which accounted for 29% of the division's sales in 2014.

Rebif®, the Biopharmaceuticals division's top-selling product, is used to treat relapsing forms of multiple sclerosis, which is one of the most common neurological diseases among young adults.

Erbitux® is the second best-selling drug in the Biopharmaceuticals division's product portfolio and its flagship product in Oncology. The product is a standard of care in multiple lines of metastatic colorectal cancer (mCRC) therapy as well as of both recurrent / metastatic and locally advanced squamous cell carcinoma of the head & neck (SCCHN).

On November 17, 2014, the Biopharmaceuticals division entered into a global strategic alliance with Pfizer Inc. to develop and commercialize MSB0010718C, an investigational anti-PD-L1 antibody currently in development by the Biopharmaceuticals division as a potential treatment for multiple tumor types, thereby accelerating the two companies' presence in immuno-oncology. The two companies have also agreed to combine resources and expertise to advance Pfizer's preclinical-stage anti-PD-1 antibody into Phase I trials. As part of the strategic alliance, the Biopharmaceuticals division will co-promote Pfizer's Xalkori®, a medicine to treat non-small cell lung cancer in the United States and several other key markets.

The Biopharmaceuticals division also offers products that help couples to conceive a child and is the only company to offer the most complete and clinically proven portfolio of fertility drugs for every stage of the reproductive cycle, including recombinant versions of the three hormones needed to treat infertility. As a leader and innovator, the Biopharmaceuticals division supports the improvement of success in Assisted Reproductive Technology not only with drugs, but also innovative technologies, for example to assess embryo viability. The products in the Fertility franchise are an important growth driver for the Biopharmaceuticals division. This is due to different factors, such as the increasing demand in emerging markets and the trend of couples postponing childbearing until later in life when natural fertility declines.

The General Medicine franchise mainly includes brands to treat cardiometabolic diseases. Although no longer patent-protected, the excellent brand equity built over decades makes the flagship products cornerstones for the treatment of chronic cardiovascular or metabolic diseases. This applies, for example, to Glucophage®

containing the active ingredient metformin, the drug of choice for first-line treatment of type 2 diabetes, as well as to Concor® containing bisoprolol, the leading beta-blocker for chronic cardiovascular diseases such as hypertension, as well as Euthyrox® (levothyroxine) as the leading treatment for hypothyroidism. Particularly in emerging markets, there is a continuous rise in demand for cardiometabolic therapies. This is due to both increasing life expectancy and in part also to growing prosperity in this region, along with the resulting changes in lifestyle and dietary habits. Beyond developing life cycle management products to capitalize on the Biopharmaceuticals division's strong brand equity, the company entered into a long-term strategic partnership with Lupin Ltd. of India to broaden the General Medicine portfolio in emerging markets with affordable, high-quality medicines.

The Biopharmaceuticals division is continuously working to improve ways to administer medicines and active ingredients. For several years, the Biopharmaceuticals division has been developing novel injection devices, which make injections more user-friendly and at the same time more reliable for patients than conventional or prefilled syringes. In addition, these products make it easier for health care practitioners and patients to ensure adherence and thus to reach their treatment goals. Examples are the easypod™ electromechanical injection devices for the delivery of Saizen® (somatropin) and RebiSmart™ for Rebif® (interferon beta-1a). Additionally, both easypod™ and RebiSmart™ are able to wirelessly transfer data such as injection times, dates and doses to the Web-based software systems easypod™ connect and MSdialog.

The Biopharmaceuticals division is advancing its research and development (R&D) portfolio across the areas of oncology, immuno-oncology and immunology, and continues to invest in developing programs in multiple sclerosis. With its expertise in discovery and early development, as well as approximately 25 projects in clinical development, the Biopharmaceuticals division is focused on delivering differentiated new therapies to patients with unmet medical needs.

In addition, Merck KGaA, Darmstadt, Germany, has two further pharmaceutical business units that operate as independent businesses within the Healthcare business sector since the new organizational structure took effect on January 1, 2015. Allergopharma is specialized in developing high-dose hypoallergenic products for specific immunotherapy and diagnosis of type 1 allergies (such as hay fever or allergic asthma). Biosimilars is developing biological medicines that are similar to an existing registered biological medicine (the "reference medicine"). The company is moving ahead with the development of a portfolio of biosimilar compounds applicable to various disease areas including oncology and autoimmune diseases. The focus is on developing molecules through in-house research and development as well as through partnerships.

As of January 1, 2014, two product groups were transferred from the Biopharmaceuticals division to Consumer Health. These are Neurobion®, a vitamin B-based analgesic, and Floratil®, a leading brand in the probiotic antidiarrheal segment in Brazil. Sales of the two products totaled € 265 million in 2013. The effects of the product group transfers on the Biopharmaceuticals division's figures for 2013 are presented in the following table.

BIOPHARMACEUTICALS →
ADJUSTED

	2013		
€ million	reported	adjustment	adjusted
Sales	6,325.8	– 265.4	6,060.4
Total revenues	5,953.6	– 265.2	5,688.4
Operating result (EBIT)	893.0	– 99.9	793.1
Margin (% of sales)	15.0		13.9
EBITDA	1,886.5	– 99.9	1,786.6
Margin (% of sales)	31.7		31.4
EBITDA pre one-time items	1,955.0	– 99.9	1,855.1
Margin (% of sales)	32.8		32.6
Business free cash flow	1,875.7	– 88.6	1,787.1

CONSUMER HEALTH

Consumer Health manufactures and markets over-the-counter pharmaceuticals. Consumer Health focuses on a number of well-known strategic brands such as Neurobion®, Bion®, Seven Seas®, Nasivin®, Femibion®, and Dolo-Neurobion®, as well as Floratil®, Sangobion®, Vigantoletten®, Apaisyl®, and Kytta®. In 2014, Consumer Health contributed 7% to Group sales and 5% to EBITDA pre one-time items (excluding Corporate and Other). Consumer Health has a high market penetration in Europe, Latin America and Southeast Asia, and is generating particularly strong growth in emerging markets, especially in India, Indonesia and Brazil, which have firmly established themselves among the top-ten markets in terms of sales. The key new product launch of Seven Seas® Perfect7® was chosen by the customers of the British health and beauty retailer Boots as the winner of the "2014 Favourite Newcomer" award.

Global megatrends favor the future growth of Consumer Health. People are becoming more health-conscious and concerned with their own physical well-being. Preventive health care and as little invasive medication as possible are becoming increasingly important – in both established and emerging markets, characterized by a growing middle class with specific needs.

On January 1, 2014, two product groups from the Biopharmaceuticals division were transferred to Consumer Health. These are Neurobion®, a leading global brand in the vitamin B segment, and Floratil®, a leading brand in the probiotic antidiarrheal segment in Brazil. The transfer of the two strong brands makes better use of the potential of the consumer-oriented business model of Consumer Health. Furthermore, Consumer Health has considerably strengthened its presence in the Emerging Markets region. This is a step in the journey towards having at least three leading brands and achieving a market share of at least 3% in each of its key markets. The share of Consumer Health sales accounted for by Emerging Markets increased from 28% (unadjusted year-earlier figure) to 50% in 2014 as a result of the product transfer. The effects of the product group transfers on Consumer Health's figures for 2013 are shown in the following table.

CONSUMER HEALTH →
ADJUSTED

€ million	2013 reported	2013 adjustment	2013 adjusted
Sales	479.6	265.4	745.0
Total revenues	476.9	265.2	742.1
Operating result (EBIT)	62.2	99.9	162.1
Margin (% of sales)	13.0		21.8
EBITDA	71.1	99.9	171.0
Margin (% of sales)	14.9		23.0
EBITDA pre one-time items	72.5	99.9	172.4
Margin (% of sales)	15.2		23.2
Business free cash flow	83.9	88.6	172.5

Effective May 15, 2014, Uta Kemmerich-Keil took over the leadership of Consumer Health, thus succeeding Udit Batra as President and Chief Executive Officer. Kemmerich-Keil was previously CEO of Allergopharma, the global Allergy business unit.

PERFORMANCE MATERIALS

Performance Materials comprises the Group's entire specialty chemicals business. The portfolio includes high-tech performance chemicals for applications in fields such as consumer electronics, lighting, coatings, printing technology, plastics, and cosmetics. The acquisition in May 2014 of AZ Electronic Materials (AZ), a leading supplier of high-tech materials for the electronics industry, significantly strengthened Performance Materials.

Performance Materials' share of Group sales increased in 2014 to 18% (2013: 15%) and its share of EBITDA pre one-time items (excluding Corporate and Other) rose to 25% (2013: 23%). The results of AZ have been included since May 2, 2014. The EBITDA margin pre one-time items amounted to 43.4% of sales.

Up until December 31, 2014, i.e. during the reporting period, Performance Materials consisted of four business units: Liquid Crystals, Pigments & Cosmetics, Advanced Technologies and AZ. Effective January 1, 2015, Performance Materials was organized into the following business units: Display Materials, Pigments & Functional Materials, Integrated Circuit Materials comprising the AZ business with specialty chemicals for use in integrated circuits (semiconductors), as well as Advanced Technologies.

The Liquid Crystals business, which became part of the Display Materials business unit on January 1, 2015, generated more than half of Performance Materials' sales in 2014. With a high market share, Merck KGaA, Darmstadt, Germany, has established itself as the global market and technology leader in liquid crystal mixtures. The market is highly consolidated. In addition, barriers to market entry exist due to the technological complexity of liquid crystals and the high quality requirements of customers and consumers. The seven largest LC display manufacturers are primarily among the customers of the Liquid Crystals business. The company has the broadest product offering in the industry and offers, among other things, liquid crystals based on PS-VA and IPS technologies. This enables Performance Materials to meet individual customer needs and offer solutions for all display sizes, from smartphones and tablet computers to large-size television screens. The Group is pursuing a strategy of leveraging its expertise in liquid crystals in order to develop new fields of application for innovative liquid crystal technology. On July 1, 2014, the company completely acquired Peer+, a Dutch specialist for smart window technology. The company has meanwhile been fully integrated. With the acquisition of its long-standing cooperation partner Peer+, the Group is further advancing the development of the future-oriented market for liquid crystal windows (LCW). The major innovation of liquid crystal windows lies in their continuously variable switching functionality from light to dark in just seconds. In January 2015, the first LCW panels were installed in the new modular Innovation Center in Darmstadt. At the same time, the new technology is being presented to a wider audience at exhibitions and congresses.

The Pigments & Functional Materials business unit develops and markets a comprehensive product portfolio of decorative effect pigments and functional materials. The effect pigments are primarily used in automotive and industrial coatings, plastics, printing applications, and cosmetics in order to give products a unique shine. Functional materials include laser marking, conductive additives and applications for counterfeit protection, as well as high-quality cosmetic active ingredients, for example for use in skin care, sun protection or insect repellants.

Merck KGaA, Darmstadt, Germany, completed the integration of AZ and its global workforce of around 1,100 employees according to schedule by the end of 2014. During the integration phase in 2014, AZ was treated as an independent business unit within Performance Materials for reporting purposes. On January 1, 2015, AZ was transferred to the Integrated Circuit Materials business unit. As a key partner to leading global electronics manufacturers, in 2014 AZ generated nearly 80% of its sales in Asia. AZ materials are widely used in integrated circuits, flat-panel displays and light-emitting diodes. The AZ portfolio thus optimally complements the range of materials offered by Performance Materials.

The Advanced Technologies business unit invests in future-oriented research and development, supporting the growth and sustainable competitiveness of Performance Materials. The business unit also manufactures and markets materials for organic light-emitting diodes (OLEDs), which are used in new lighting applications and display technologies. The performance of the OLED materials business was very positive in 2014. The demand for OLED materials from the company increased significantly, particularly in Asian countries. At the same time, the customer base expanded.

LIFE SCIENCE

The Life Science division has a broad product and technology portfolio and offers innovative solutions for scientists and engineers in the life science industry. Life science comprises the research branches of natural and engineering sciences concerned with the structure and behavior of living organisms. The Life Science division's products and services are used in the research, development and manufacture of biotechnological and pharmaceutical drug therapies, as well as in research and application laboratories. In addition, products and services from the Life Science division also reach adjacent markets, such as food and beverages. The Life Science division was established in 2010 following the acquisition of the Millipore Corporation. It is a leading supplier of life science tools.

In 2014, the Life Science division contributed 24% to Group sales and 19% to EBITDA pre one-time items (excluding Corporate and Other). The majority of sales are generated by consumables. This enables the Life Science division to achieve recurring sales and stable, attractive cash flows in an industry that is characterized by stringent regulatory requirements. A highly diversified and loyal customer base additionally ensures a favorable risk profile. At the same time, the Life Science division benefits from its broad portfolio and its global reach. The Life Science division comprises three business areas: Bioscience, Lab Solutions and Process Solutions, as well as multiple specialized business fields.

The main product groups of the Bioscience business area include tools and consumables for filtration and sample preparation, reagents and kits for cell biology experiments, as well as small tools and consumables for cell analysis. With these products, the Life Science division supports its customers in understanding complex biological systems and identifying new target molecules. The Bioscience business area accounted for 15% of the Life Science division's sales in 2014. Since innovation is a key component of Bioscience, the Life Science division offers complete and validated applications to make research processes faster and more efficient.

The Lab Solutions business area manufactures products for research as well as analytical and clinical laboratories in a wide variety of industries. The business area accounted for 41% of the Life Science division's sales in 2014. It is one of the leading suppliers of laboratory water equipment, laboratory chemicals and consumables. In addition, Lab Solutions develops and markets test solutions to identify microbial contamination, for example in pharmaceutical products, food and drinking water. For inorganic chemistry, Lab Solutions supplies ultrapure reagents, including salts, acids, caustic alkalis, and buffering agents. It also manufactures reference materials for instrumental analysis and products for inorganic trace analysis. In 2014, the Lab Solutions business area launched new Steritest™ Symbio Pumps for easier, safer and more reliable sterility testing of pharmaceutical products in laminar flow hoods, isolators and cleanrooms. The Steritest™ Symbio Pumps were developed to address stringent pharmaceutical testing requirements. The launch continues the Life Science division's 40-year legacy of providing groundbreaking sterility testing products.

Additionally, the Life Science division underlined its technology leadership with the announcement that its Chromocult® Coliform Agar (CCA) has been used by the International Organization for Standardization (ISO®) as the only suitable culture medium to develop a revised standard for enumerating coliform bacteria and E. coli in water samples to replace Lactose TTC Agar. The completely revised ISO® 9308-1 standard became effective on September 16, 2014.

The Process Solutions business area offers a diversity of products to pharmaceutical and biotechnology companies that enable customers to manufacture large- and small-molecule drugs safely, effectively and cost-efficiently. Accounting for 44% of the Life Science division sales in 2014, Process Solutions offers its customers continuous innovations, highest quality standards as well as high reliability of supply. In addition, the business area's portfolio comprises more than 400 chemicals for the synthesis of active pharmaceutical ingredients as well as drug delivery compounds. The offering in biotech production comprises products supporting cell growth and gene expression, a wide range of filtration systems, as well as salts and sugars. The single-use solutions offered by the Process Solutions business area provide increased operational flexibility to biopharmaceutical customers since they eliminate time- and cost-intensive cleaning procedures. Moreover, these single-use solutions are compatible with various products, reducing investment costs for customers.

On March 17, 2014, the Life Science division announced a clinical research, licensing and joint development agreement with Sysmex Corporation of Japan. This collaboration will use the Life Science division's flow cytometry technology as a platform to accelerate the creation of new, more powerful diagnostic tools for research in blood disorders. If successful, Sysmex and the Life Science division will collaborate on developing the imaging flow technology platform for future commercialization in hematology.

On May 15, 2014, Udit Batra, who formerly headed Consumer Health, took over the leadership of the Life Science division, succeeding Robert Yates as President and Chief Executive Officer.

On August 20, 2014, the Life Science division and Samsung BioLogics announced the signing of a Memorandum of Understanding for a strategic alliance in the biopharmaceutical business. The proposed alliance is intended to encompass a long-term supply agreement in which the Life Science division will provide raw materials for biopharmaceutical manufacturing.

On September 22, 2014, Merck KGaA, Darmstadt, Germany, and Sigma-Aldrich announced that they had entered into a definitive agreement under which the company will acquire Sigma-Aldrich for US$ 17.0 billion (€ 13.1 billion), establishing one of the leading players in the global life science industry. The closing of the transaction is expected in mid-2015, subject to regulatory approvals and other customary closing conditions.

OBJECTIVES AND STRATEGIES OF THE GROUP

In 2007, Merck KGaA, Darmstadt, Germany, launched a transformation process aimed at securing its future through profitable growth in highly specialized niche markets within today's Healthcare, Life Science and Performance Materials business sectors of Merck KGaA, Darmstadt, Germany.

This process started with the large-scale acquisitions of Serono SA in 2007 and the Millipore Corporation in 2010. In 2011, the company embarked on the "Fit for 2018" transformation and growth program with a new executive management team. In the first phase, the company created the foundation for profitable growth by introducing a new leadership organization and a comprehensive, Group-wide efficiency program. The second phase, which started in 2014, is aimed at successively implementing the growth options identified by establishing three strong platforms for sustainable profitable growth. Merck KGaA, Darmstadt, Germany, is building on its core competencies:

- → Closeness to existing businesses
- → Innovative strength
- → Customer proximity (to offer tailored solutions)
- → Focus on specialty businesses

Moreover, the company is aiming to expand its business model systematically and continuously to include new technologies and partnerships. In 2014, three important milestones were achieved in the implementation of the Group strategy:

- → Through the acquisition of AZ Electronic Materials, which was completed in May, the product base and new customer offerings were expanded by new technologies.
- → With the announcement of the planned acquisition of Sigma-Aldrich in September, the foundation was laid for enhancing the Group's position in the attractive life science industry. The aim of the planned merger is to offer customers a broader range of products and services as well as the industry's leading e-commerce platform.
- → With the November announcement of the agreement with Pfizer on a strategic alliance for anti-PD-L1, the Group wants to accelerate its presence in immuno-oncology by combining the strengths and capabilities of the two companies in the highly competitive anti-PD-1/anti-PD-L1 space. Up to 20 immuno-oncology clinical development programs are planned for commencement in 2015, including up to six pivotal registration studies. The alliance also has the potential to accelerate the company's entry into the U.S. oncology market through the co-promotion of Xalkori®.

In line with its strategic agenda and focus on three growth platforms, effective January 1, 2015, the company organizationally repositioned itself. The previous four divisions have been replaced by three **business sectors**:

- → **Healthcare** comprises the Biopharmaceuticals, Consumer Health, Allergopharma and Biosimilars businesses.
- → **Life Science** consists of the Life Science business.
- → **Performance Materials** corresponds to the business of the same name.

The strategic transformation into a specialist for innovative high-tech solutions in Healthcare, Life Science and Performance Materials is reflected by the composition of sales. Within the Healthcare business sector of Merck KGaA, Darmstadt, Germany, the Biopharmaceuticals business today generates more than 65 – 70% of its sales with biopharmaceuticals. In 2006, there was only one such product, Erbitux®, which accounted for less than 10% of sales. The classic Chemicals business has increasingly become a premium materials business that offers Merck KGaA, Darmstadt, Germany, customers a wide range of value-adding products. Today, high-tech materials and life science tools make up around 80% of sales in the Life Science and Performance Materials business sectors of Merck KGaA, Darmstadt, Germany. In 2006, the share was around 30%.

GENERAL PRINCIPLES AND GROUP STRATEGY

The year 2018 will mark the 350th anniversary of Merck KGaA, Darmstadt, Germany. The general principles of the "Fit for 2018" transformation and growth program and the Group strategy are to serve as a compass beyond 2018 as well.

General principles

In its business endeavors, the company orients towards general principles. They help those responsible within the company to shape strategic plans and to make decisions.

The structure of Merck KGaA, Darmstadt, Germany, with members of the Merck family as personally liable partners requires the Group Executive Board, whose members are also personally liable partners, to pay special attention to the long-term development of value. Therefore, sustainability plays a special role at the company. The objective is to align the long-term development of the company with the legitimate interests of shareholders, whose engagement in the Group is normally of a shorter duration. That

is why the business portfolio of Merck KGaA, Darmstadt, Germany, must always be balanced so that it reflects an optimum mix of entrepreneurial opportunities and risks. The company achieves this through diversification in the Healthcare, Life Science and Performance Materials business sectors of Merck KGaA, Darmstadt, Germany, as well as through its geographic breadth with respect to growth sources.

For Merck KGaA, Darmstadt, Germany, the principle of sustainability applies not only to economic aspects. Instead, it also encompasses responsibility for society and environmental preservation. With its current and future product portfolio, the company wants to help solve global challenges and shape a sustainable future. That is also why innovation is the basis of the company's business activities; it is the prerequisite for future growth. Merck KGaA, Darmstadt, Germany, is continually working on innovative products and services for patients and customers and relies on a continual process of internal innovation throughout all areas of the company.

Group strategy

The Group focuses on innovative and top-quality high-tech products in the Healthcare, Life Science and Performance Materials business sectors of Merck KGaA, Darmstadt, Germany. The company's goal is sustainable and profitable growth. Merck KGaA, Darmstadt, Germany, intends to achieve this by growing organically and by further developing its competencies, as well as by making targeted acquisitions that complement and expand existing strengths in meaningful ways. Building on leading products in all its businesses, the company aims to generate income that is largely independent of the prevailing economic cycles. Moreover, the aim is to further expand the strong market position in emerging markets in the medium to long term. In 2014, the Emerging Markets region contributed 38 % to Group sales.

STRATEGIC INITIATIVES

Capability initiatives

As the company continues to grow in size and the business becomes increasingly global, the Group is to be seen as ONE company. ONE Group stands not only for a strong brand, but also for a performance-oriented global company with a strong sense of "we". Merck KGaA, Darmstadt, Germany, is more than the sum of its parts. Therefore, the company has launched four capability initiatives.

The capability initiative **ONE Brand** aims to strengthen the value of the brand, to increase the company's global visibility and reputation and to become more attractive to customers, partners and talent globally.

The framework for talent development, compensation and performance management is to be harmonized globally (**ONE Talent Development, Rewards and Performance Management**). As part of this initiative, the company will focus on establishing a consistent and integrated talent and performance management process and improving the talent portfolio by proactively identifying and sourcing talent as well as ensuring workforce diversity.

The goal of the third capability initiative ONE **Process Harmonization, Standardization and Excellence** is to better coordinate processes and apply them consistently. This is particularly the case with software applications. Continuous improvement will take place through benchmarking. Ultimately, this will allow the company to adapt rapidly to business changes as well as to integrate future acquisitions both seamlessly and efficiently.

The importance of the Group's global headquarters in Darmstadt is to increase along the lines of ONE **Global Headquarters**. The company in Darmstadt is to become a vibrant home for creativity, scientific exchange and innovation. By laying the cornerstone for a modular Innovation Center in 2014, the company created the basis for cross-functional and Group-wide cooperation on projects.

Business initiatives

Furthermore, Merck KGaA, Darmstadt, Germany, has set up a range of business initiatives in order to expand the existing portfolio as well as to capture new business opportunities. The following initiatives are of major significance:

Biosimilars

The company wants to use its expertise in developing, manufacturing and commercializing high-quality biotechnological medicines in order to create a competitive biosimilars portfolio. The focus is on developing molecules through in-house research and development as well as through partnerships.

Research & Development at the Biopharmaceuticals business

The Biopharmaceuticals business introduced a more entrepreneurial model to elevate the performance dynamics of its research and development. Based on Translational Innovation Platforms (TIPs), the Biopharmaceuticals business wants to foster long-term planning and an entrepreneurial mindset, validated by an independent advisory board of external experts (see below).

OLEDs

Performance Materials aims to further expand its global leadership position in display materials. The Group expects OLED technology to increase in importance in the future. Performance Materials is therefore investing in developing a comprehensive OLED portfolio. By 2018, Merck KGaA, Darmstadt, Germany, aims to be a leading supplier of OLED materials.

BUSINESS STRATEGIES

Healthcare business sector

Biopharmaceuticals

The Biopharmaceuticals business aims to become a preferred global biopharmaceutical partner through its enduring commitment to transforming patients' lives with innovative specialty medicines, leading brands and high-value solutions. Global megatrends such as world population growth and a general increase in life expectancy are bolstering the demand for the Biopharmaceuticals business' products. The Biopharmaceuticals business is well-positioned for sustainable growth.

The first pillar of the Biopharmaceuticals business' strategy is to deliver innovation globally. The portfolio decision-making process has been improved and a rigorous project prioritization implemented with shorter timelines to phase transitions. Efficiency in R&D has been strengthened with the development of biomarkers to improve patient outcomes, with a focus on selected core therapeutic areas and with the creation of Translational Innovation Platforms. The Biopharmaceuticals business has three priority development programs: atacicept in immunology, evofosfamide (TH-302) in oncology and avelumab in immuno-oncology, an anti-PD-L1 antibody that the Biopharmaceuticals business will develop and commercialize with Pfizer as a potential treatment for multiple tumor types.

The second pillar of the Biopharmaceuticals business' strategy is to maximize the existing portfolio in developed markets. In the Multiple Sclerosis franchise, the vision is to remain a leader by providing innovative solutions that include drugs, devices and services to help people living with multiple sclerosis. The Biopharmaceuticals business plans to fully exploit the potential of Rebif®, its top-selling product, in an increasingly competitive multiple sclerosis market and to position it as the best interferon-based therapeutic option for patients who suffer from the relapsing form of the disease, driving differentiation via smart injection devices and the first multiple sclerosis e-Health platform. In Fertility, the focus is on expanding market leadership and on providing innovative services and technologies beyond drugs. In Oncology, the Biopharmaceuticals business promotes the value of Erbitux® to personalized treatments, especially in Europe and Japan, and emphasizes the importance of offering patients complete testing for RAS status in order to ensure optimum treatment. The Biopharmaceuticals business will also ensure launch readiness in these innovation-driven markets. Through the co-promotion of Xalkori® with Pfizer, the Biopharmaceuticals business is entering the U.S. oncology market and preparing for the future launch of its anti-PD-L1 antibody.

The third pillar of the Biopharmaceuticals business strategy is to expand further in Emerging Markets. With a growing middle class, extended health care coverage, a shift towards chronic diseases, and rising demand for biologics, Emerging Markets are a key driver for the Biopharmaceuticals business, accounting for over 60 % of organic growth between 2011 and 2013. In Emerging Markets, the Biopharmaceuticals business is implementing strategic growth initiatives in its General Medicine and specialty medicine franchises to address specific needs. The Biopharmaceuticals business is leveraging capabilities and local channels, for example by extending the breadth and depth of promotion in China, expanding its portfolio via regional and local licensing, and supporting market developments in Fertility. The Biopharmaceuticals business is also investing selectively and growing its flagship brands with new formulations (Euthyrox® or Glucophage®), fixed-dose combinations (Concor®) and devices (Saizen®). The Biopharmaceuticals business is repatriating business, taking back the promotion of Merck KGaA, Darmstadt, Germany, products from industry partners where attractive. And it is expanding the focus of its portfolio with growth initiatives in biologics.

Biosimilars

The Biosimilars business is committed to providing access to high-quality biologics to more patients all over the globe. The unit is developing a biosimilars portfolio focused on oncology and inflammatory disorders, through both in-house research and development expertise in biologics, and partnerships with other biosimilar players. The initiation of Phase III trials is planned for 2015 / 2016 onwards. Biosimilars is an attractive market in which the company is well-positioned as it can build on existing strengths and capabilities across the biosimilars value chain. This includes the ability to leverage internal assets or source capabilities from suppliers to ensure compliance with regulatory requirements, secure market access across key markets such as the Emerging Markets region, leverage commercial manufacturing capabilities and flexibility, as well as adopt a tailored go-to-market approach. The company has also established strategic alliances with Dr. Reddy's in India to co-develop several oncology compounds and with Bionovis in Brazil to supply the Brazilian market with biological products under the Product Development Partnership (PDP) policy of the Brazilian Ministry of Health.

This is to be expanded by another, as yet undisclosed in-licensing agreement for a late-stage biosimilar.

Allergopharma

The market for causal allergy therapies is a global growth market. On the one hand, the global market growth expected by market researchers will be generated by an increasing number of people with allergies, and on the other hand it is based on the growing use of specific immunotherapy (SIT) in many emerging markets. Allergopharma is a manufacturer of diagnostics and prescription drugs for allergen immunotherapy (AIT). AIT (hyposensitization, desensitization, allergy immunization) is the only causal therapy for treating allergies to unavoidable allergens. AIT is primarily carried out by physicians who specialize in allergies, such as ENT doctors, dermatologists, pediatricians and pulmonologists. With its own research department and in cooperation with research institutes and other partners, the Group is helping develop a better understanding of the immunological mechanism that underlies the development of allergies and is actively working on the next generation of drugs for allergen immunotherapy. Plans to expand production in Reinbek near Hamburg in 2016, thus expanding capacity, will advance global expansion and will also help to meet the increasingly high manufacturing standards. As was previously the case, products to diagnose and treat type 1 allergies such as hay fever or allergic asthma will be manufactured here under ultrapure, sterile conditions.

Consumer Health

In 2012 and 2013, Consumer Health undertook steps to strategically realign the internal organization while sharpening its focus on core brands and particularly attractive key markets. In 2014, Consumer Health forged ahead with its growth agenda, particularly in the emerging markets of Latin America and Southeast Asia. As a result, Consumer Health achieved organic sales growth of 5.4%, clearly exceeding general market growth. To this end, the company is pursuing a clear strategy: The aim is for Consumer Health to achieve a market share of at least 3% by 2021 in each of its top 20 markets (including France, Mexico, Brazil, Germany, Indonesia, India, and the United Kingdom), with at least three brands in leading positions.

An important milestone within the framework of this strategy was the transfer of the Neurobion® and Floratil® brands from the former Biopharmaceuticals division to Consumer Health in 2014. Neurobion® is a leading global brand in the vitamin B segment and Floratil® is a leading brand in the probiotic antidiarrheal segment in Brazil. Following their transfer to Consumer Health in 2014, both brands clearly demonstrated potential to focus more closely on consumer wishes and needs in core markets. For instance, the growth of Floratil® in the key market of Brazil increased more than tenfold. Further important components of implementing the "3 x 3" strategy are geographic expansion of existing brands into new markets, such as the recent market launch of the Bion® brand in Brazil, as well as possible inorganic growth through tactical takeovers and product acquisitions, as long as these are in line with the strategic direction.

Life Science business sector

Life Science

The Life Science business is one of the leading players in the attractive global life science tools industry. The business has a global presence across the laboratory and process markets – two broad customer sub-segments with differing needs. The strategy in laboratory markets is based on three success factors: a broad and attractive portfolio, a simple customer interface and an organization able to deal with complexity, for example more than 70,000 products serving over 1 million customers. The three key success factors for the process markets strategy are a deeply technical field force, product depth in developed markets as well as portfolio breadth in emerging markets.

The Life Science business will focus on expanding its presence across laboratories in emerging geographies as well as gaining share of wallet in North America. The Life Science business aims to continue to grow above market by accelerating growth in the process solutions and key laboratory businesses. This includes maintaining above-market R&D investments to remain on the innovation forefront, solving customer needs and delivering sustainable, profitable growth.

The planned acquisition of Sigma-Aldrich would establish one of the leading players in the life science industry, fostering key capabilities fully in line with the Life Science business' strategy.

Performance Materials business sector

Performance Materials

The demand for high-tech products in general and for innovative display solutions in particular has seen high global growth in recent years. This trend is not expected to weaken in the coming years. Instead, the Group assumes that increasing demand for these types of consumer goods will come from a growing middle class in emerging markets. Therefore Performance Materials will defend its position as the market and technology leader for liquid crystals and further expand it as far as possible.

Since the typical life cycle of LC mixtures is less than three years, innovation will remain the key success factor. The liquid crystals pipeline of Performance Materials is well-stocked with new technologies such as self-aligned vertical alignment (SA-VA), advanced fringe field switching (FFS), as well as projects with applications beyond displays.

The Group's OLED business, which is part of the Advanced Technologies business unit, posted strong, above-average growth in 2014. Performance Materials wants to further position itself in the OLED market and play a leading role in this market segment in the medium to long term. Lower production costs for OLED displays are a precondition for this. External partnerships will also be used in the future to ensure the required exchange of technology and expertise.

The acquisition of AZ Electronic Materials has sustainably strengthened the portfolio and the market position of Performance Materials. All integration measures were successfully implemented in 2014, adding a further premium business to the existing profitable businesses. AZ is a manufacturer of ultrapure, innovative specialty chemicals and materials for use in integrated circuits (semiconductors) and equipment, in flat-panel displays, and for photolithographic printing. Both Performance Materials and AZ have very similar and attractive business models based on innovation, customer proximity, high market share and profitability in the growth areas of displays, semiconductors, organic electronics, and lighting.

Within its Pigments & Functional Materials business unit, the company continues to focus on high-quality brands that add value for customers as well as on market segments with growth potential. These include effect pigments, e.g. for automotive coatings, and functional materials, e.g. for laser marking.

STRATEGIC FINANCIAL AND DIVIDEND POLICY

For reasons of sustainability, Merck KGaA, Darmstadt, Germany, generally follows a conservative financial policy. Apart from a solid balance sheet with transparent and healthy structures, this policy is reflected by the selection of financing sources, liquidity management, key financial indicators, the dividend policy, and risk management. The company generates high business free cash flow and its return on capital employed has been sustainably maintained at a high level.

In the context of the ongoing Group-wide efficiency program, in the past years cash was reserved with high priority to fund restructuring measures across all divisions and regions. In 2014, liquid funds were then used in particular for the acquisition of AZ Electronic Materials (Performance Materials).

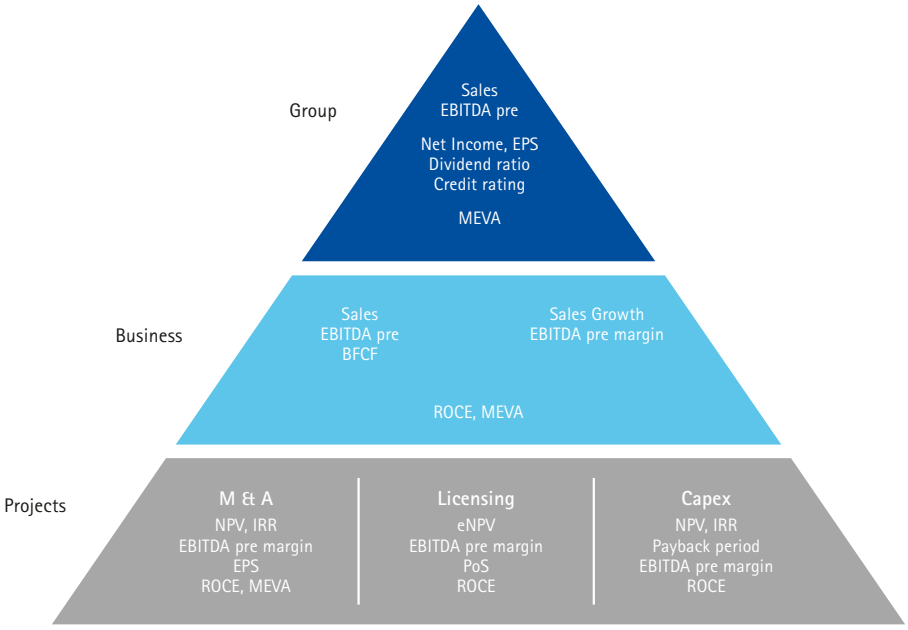
One-time expenses in connection with restructuring measures as well as costs related to the integration of acquired businesses have also been assumed for 2015. With the planned acquisition of Sigma-Aldrich (Life Science) in 2015 – subject to the successful closing of the transaction – liquid funds would likewise again be used for inorganic growth. Accordingly, in the coming years, the repayment of the financial liabilities taken up in connection with this acquisition would be at the fore, along with the associated ongoing interest payments. In this case, initial one-time expenses for the integration could already be incurred then. However, smaller, so-called bolt-on acquisitions are still not ruled out. In addition, the company will also invest in organic growth initiatives as part of its "Fit for 2018" transformation and growth program.

The Group is pursuing a sustainable dividend policy. Provided that the economic environment develops in a stable manner, the current dividend represents the minimum level for future dividend proposals. The dividend policy follows the business development and earnings increase of the coming years. However, dividend growth could deviate, e.g. within the scope of restructuring or in the event of significant global economic developments. The company also aims for a target corridor of 20 – 25 % of EPS pre one-time items.

INTERNAL MANAGEMENT SYSTEM OF THE GROUP

As a global company with a diverse portfolio of products and services, Merck KGaA, Darmstadt, Germany, uses a comprehensive framework of indicators to manage performance. The most important KPI (key performance indicator) to measure performance is EBITDA pre one-time items.

The Value Creation and Financial KPI Pyramid, which summarizes the important financial performance measures of the Group, reflects the comprehensive framework of financial KPIs to steer the businesses and prioritize the allocation of cash resources. It consists of three managerial dimensions, which require the use of different indicators: Group, Business and Projects.



Abbreviations

EBITDA pre = Earnings before interest, income tax, depreciation and amortization pre one-time items
EPS = Earnings per share
MEVA = Value added of Merck KGaA, Darmstadt, Germany
BFCF = Business free cash flow
ROCE = Return on capital employed
NPV = Net present value
IRR = Internal rate of return
eNPV = expected Net present value
PoS = Probability of success

KEY PERFORMANCE INDICATORS OF THE GROUP AND ITS BUSINESSES

The three key performance indicators sales, EBITDA pre one-time items[1], and business free cash flow[1] are the most important factors for assessing operational performance. Reference to these KPIs can therefore be found in the Report on Economic Position, the Report on Risks and Opportunities, and in the Report on Expected Developments. As the most important indicators of the Group's financial business performance, the KPIs are key elements of the company's performance management system.

Sales

Sales are defined as the revenues from the sale of goods and services rendered to external customers net of value added tax and after sales deductions such as rebates or discounts. Sales are the main indicator of business growth in the Group and therefore an important parameter of external as well as internal performance measurement.

GROUP →
SALES

€ million / change in %	2014	2013	Change
Sales	11,291.5	10,700.1	5.5

EBITDA pre one-time items

EBITDA pre one-time items is the main performance indicator measuring ongoing operational profitability and is used internally and externally. To allow for a better understanding of the underlying operational performance, it excludes from the operating result depreciation and amortization as well as one-time items. One-time items are restricted to the following categories: impairments, integration costs / IT costs, restructuring costs, gains / losses on the divestment of businesses, acquisition costs, and other one-time items. The classification of specific income and expenses as one-time items follows clear definitions and underlies strict governance at Group level. Within the scope of internal performance management, EBITDA pre allows for the necessary changes or restructuring without penalizing the performance of the operating business.

GROUP →
RECONCILIATION EBIT TO EBITDA PRE ONE-TIME ITEMS

€ million / change in %	2014	2013	Change
Operating result (EBIT)	**1,762.0**	**1,610.8**	**9.4**
Depreciation and amortization	1,261.6	1,237.9	1.9
Impairment losses / Reversals of impairment losses	99.3	220.5	–55.0
EBITDA	**3,122.9**	**3,069.2**	**1.7**
Restructuring costs	83.9	130.5	–35.7
Integration costs / IT costs	87.2	49.0	78.0
Gains / losses on the divesment of businesses	–1.9	2.3	–182.6
Acquisition-related one-time items	85.0	0.0	–
Other one-time items	10.6	2.3	365.2
EBITDA pre one-time items	**3,387.7**	**3,253.3**	**4.1**

[1] Financial indicators not defined by International Financial Reporting Standards.

Business free cash flow (BFCF)

Business free cash flow comprises the major cash-relevant items that the individual businesses can influence and are under their full control. It sums up EBITDA pre one-time items less investments in property, plant and equipment, software, advance payments for intangible assets, as well as changes in inventories and trade accounts receivable. To manage working capital on a regional and local level, the businesses use the two indicators days sales outstanding and days in inventory.

GROUP →
BUSINESS FREE CASH FLOW

€ million / change in %	2014	2013	Change
EBITDA pre one-time items	**3,387.7**	**3,253.3**	**4.1**
Investments in property plant and equipment and software as well as advance payments for intangible assets	–527.5	–446.2	18.2
Changes in inventories as reported in the balance sheet	–185.5	59.7	–
Changes in trade accounts receivable as reported in the balance sheet	–214.2	93.2	–
Adjustment first-time consolidation of AZ Electronic Materials S.A.	144.6	–	–
Business free cash flow	**2,605.1**	**2,960.0**	**–12.0**

INVESTMENTS AND VALUE MANAGEMENT

Sustainable value creation is essential to secure the long-term success of the company. To optimize the allocation of financial resources, the Group uses a defined set of parameters as criteria for the prioritization of investment opportunities and portfolio decisions.

Net present value

The main criterion for the prioritization of investment opportunities is net present value. It is based on the discounted cash flow method and is calculated as the sum of the discounted free cash flows over the projection period of a project. Consistent with the definition of free cash flow, the weighted average cost of capital (WACC), representing the weighted average of the cost of equity and cost of debt, is used as the discount rate. Depending on the type and location of a project different mark-ups are applied to the WACC.

Internal rate of return (IRR)

The internal rate of return is a further important criterion for the assessment of acquisition projects and investments in property, plant and equipment. It is the discount rate that makes the present value of all future free cash flows equal to the initial investment or the purchase price of an acquisition. A project adds value if the internal rate of return is higher than the weighted cost of capital including mark-ups.

Return on capital employed (ROCE)

In addition to NPV and IRR, ROCE is an important metric for the assessment of investment projects. It is calculated as the operating result (EBIT) pre one-time items divided by the sum of property, plant and equipment, intangible assets, trade accounts receivable and trade accounts payable, as well as inventories.

Payback period

An additional parameter to prioritize investments into property, plant and equipment is the payback period, which indicates the time in years after which an investment will generate positive net cash flow.

Value added of Merck KGaA, Darmstadt, Germany (MEVA)

MEVA gives information about the financial value created in a period. Value is created when the return on capital employed (ROCE) of the company or the business is higher than the weighted average cost of capital (WACC). MEVA metrics provide the Group with a powerful tool to weigh investment and spending decisions against capital requirements and investors' expectations.

CAPITAL MARKET-RELATED PARAMETERS

Net income and earnings per share (EPS)

Earnings per share are calculated by dividing profit after tax attributable to the shareholders of Merck KGaA, Darmstadt, Germany, (net income) by the weighted average number of theoretical shares outstanding. The use of a theoretical number of shares takes into account the fact that the general partner's capital is not represented by shares. To provide a more comparable view, the company also publishes EPS pre, which excludes one-time items and amortization of intangible assets and is based on the company's underlying tax ratio.

Credit rating

The rating of the credit worthiness of Merck KGaA, Darmstadt, Germany, by external agencies is an important indicator with respect to the company's ability to raise debt capital at attractive market conditions. The capital market makes use of the assessments published by independent rating agencies in order to assist debt providers in estimating the risks associated with a financial instrument. The company is currently assessed by Moody's and Standard & Poor's (S&P). The most important factor for the credit rating is the ability to repay debt, which is determined in particular by the ratio of operating cash flow to (net) financial debt.

Dividend ratio

With the aim of ensuring an attractive return to shareholders, Merck KGaA, Darmstadt, Germany, pursues a reliable dividend policy with a target payout ratio based on EPS pre one-time items (see definition above).

OTHER RELEVANT/NON-FINANCIAL PERFORMANCE MEASURES

Apart from the indicators of the financial performance of the businesses, non-financial measures also play an important role in furthering the success of the company. From a Group perspective, specifically innovations in the businesses as well as the attraction and retention of highly qualified employees are of central importance.

Innovation

Innovation is the foundation of the business and will also be the prerequisite for future success in changing markets. Merck KGaA, Darmstadt, Germany, is continuously working to develop new products and service innovations for patients and customers. Indicators for the degree of innovation are defined individually depending on the specifics of the respective businesses.

Talent retention

Employing a highly qualified and motivated workforce is the basis for achieving the Group's ambitious business goals. Therefore, the company puts a strong focus on establishing the processes and the environment needed to attract and retain the right talent with the right capabilities at the right time. To measure the success of the related measures, the Group has implemented talent retention as an important non-financial indicator.

CORPORATE RESPONSIBILITY

Responsible conduct plays a key role in the company's corporate culture – with respect to employees, products, the environment, and society. Over the course of nearly 350-year history of Merck KGaA, Darmstadt, Germany, the principle of corporate responsibility has become a firm pillar of corporate governance. It is part of daily conduct and is thus a fundamental prerequisite for the Group's business success.

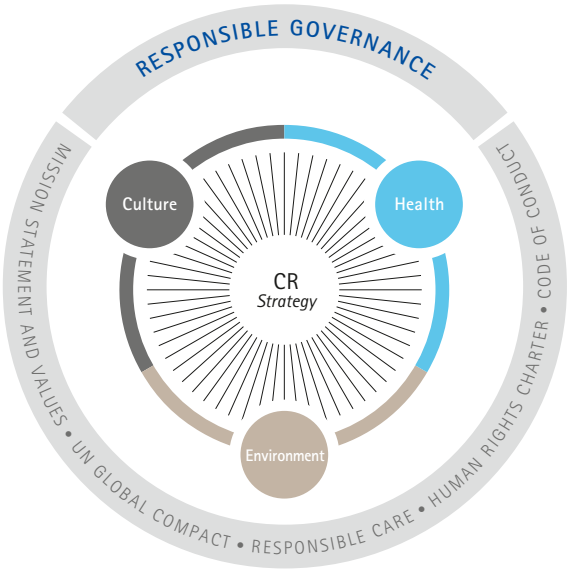
STRATEGY AND MANAGEMENT

Our corporate responsibility (CR) activities are directed by our Group-wide CR Committee, which consists of representatives from the businesses and relevant Group functions. Stefan Oschmann, Vice Chairman of the Executive Board, became chairman of this committee in January 2015. As a global company, our ambition is to create added value for consumers, market partners and the community while also helping them lead better lives.

Mankind is confronted with global societal challenges such as climate change, resource scarcity and insufficient access to health in low- and middle-income countries. We believe that we can help resolve these global challenges through our innovative products in the Healthcare, Life Science and Performance Materials sectors, as well as through responsible governance.

All of our CR activities come under the umbrella of "responsible governance" (see page 63 et seq.). Based on our corporate strategy, at the end of 2014 we selected three strategic spheres of activity from our CR framework in which we seek to excel. Our aim is to hone the Group's competitive edge while helping to sustainably secure its future.

CORPORATE RESPONSIBILITY AT THE GROUP →



- → **Health:** We aim to help underserved populations in low- and middle-income countries to gain access to high-quality health solutions.
- → **Environment:** A number of our innovative chemical and life science products contribute to environmental protection or help our customers conserve energy.
- → **Culture:** Culture inspires people and opens up their minds to new possibilities. As a high-tech, research-based company, we therefore promote cultural projects worldwide. Moreover, we are engaged in educational projects, especially since education is key to making culture accessible.

Merck KGaA, Darmstadt, Germany, supports relevant initiatives concerning responsible governance. The company is a member of the United Nations Global Compact and is committed to complying with the compact's principles regarding human rights, labor standards, environmental protection and anti-corruption. Moreover, we also live our corporate responsibility through our commitment to follow the guidelines of the Responsible Care Global Charter, an initiative of the International Council of Chemical Associations (ICCA). This charter aims to continuously improve the products and services of the chemical industry in terms of environmental protection, health, plant safety and security. The Group was among the first companies to sign the revised version of the Responsible Care Global Charter. In addition, we are a member of the "Chemie³" initiative, a collaboration between the German Chemical Industry Association (VCI), the German Employers' Federation of the Chemical Industry (BAVC), and the German Mining, Chemical and Energy Industrial Union (IG BCE). As part of this globally unique collaboration, the partners aim to make sustainability a core part of the chemical industry's guiding principles and to jointly drive the sector's position within the German economy as a key contributor to sustainable development.

To the Group, corporate responsibility does not merely mean taking action, but also listening. The dialogue with our various stakeholder groups is therefore highly important to us. These stakeholders include our employees, our business associates, the Merck family, investors, regulatory agencies, and associations. We also engage in a continuous exchange in order to create transparency and clearly demonstrate how we live the Group's Values. One example of this exchange is a conference held on the topic of "Germany needs the chemical industry. Sustainability – a prerequisite for growth and prosperity?", which the company held in September 2014 in collaboration with its Chemie³ partners, VCI, BAVC and IG BCE. The sustainability conference took place during the German event series entitled "The Chemistry is Right in Darmstadt", which the company, Darmstadt – the city of science, and the Technical University of Darmstadt are offering from September 2014 to June 2015. To prepare for the conference, the Group organized an expert workshop in July 2014 with representatives from the worlds of politics, business and society.

Thanks to good performance with respect to responsible, sustainable entrepreneurial conduct, the company was again included in the FTSE4Good index in 2014. To be included in this leading international sustainability index, a company must demonstrate socially conscientious, ecological and ethical conduct. In 2014, Merck KGaA, Darmstadt, Germany, maintained its good position in other major sustainability indices as well. For instance, we were once more included in the STOXX Global ESG Leaders index. Moreover, the company has remained listed on the Euronext Vigeo Eurozone 120 index, which features the 120 most progressive companies in Europe in terms of ecological, social and governance-related criteria.

STRATEGIC SPHERE OF ACTIVITY: HEALTH

Access to Health (A2H) is a strategic priority for Merck KGaA, Darmstadt, Germany (see page 26 et seq.). Through our A2H approach, which spans all our businesses, we aim to help improve sustainable access to high-quality health solutions for underserved populations and communities in low- and middle-income countries. Recognizing that access is a complex and multifaceted challenge with no one-size-fits-all solution, our programs and initiatives are tailored to global, regional and local needs. We realize that we cannot work alone to address all the access gaps and that partnerships, collaboration and dialogue are key to delivering sustainable access results.

Stefan Oschmann, Vice Chairman of the Executive Board, plans to focus his presidency of the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) on accelerating access to high-quality health solutions for people in low- and middle-income countries. Oschmann was elected President of the IFPMA for a two-year term at the 27th IFPMA Assembly in New York, USA in November 2014.

In November 2014, the Access to Medicine Foundation of the Netherlands recognized our efforts to improve access to health. In the 2014 Access to Medicine Index, the company ranked sixth, moving up two places compared to 2012 and 11 places compared to 2010. Every two years, the index assesses the world's leading pharmaceutical companies with respect to their activities and initiatives to promote access to medicine in developing countries.

The company's holistic Access to Health strategy focuses on four areas, known as the "4As of Access" framework: Availability, Affordability, Awareness, and Accessibility. In its ranking, the Access to Medicine Foundation particularly recognized the Group for its strategic and comprehensive access approach and its access initiatives.

Availability

Availability entails the research, development and refinement of health solutions that address unmet needs and are tailored to local environments. Through partnerships and innovative alliances, Merck KGaA, Darmstadt, Germany, is working to tackle diseases most affecting developing countries. One example is our engagement within the Pediatric Praziquantel Consortium. Through this public-private partnership, the Group is developing a pediatric formulation of praziquantel to treat the worm disease schistosomiasis. In March 2014, the consortium was awarded a prestigious research grant from the Japanese Global Health Innovation Technology Fund. Another example is our partnership with the non-profit research foundation Medicines for Malaria Venture, to develop new anti-malarials.

Affordability

Merck KGaA, Darmstadt, Germany, seeks to address affordability challenges by providing assistance to those who are unable to pay for the health solutions they need. To tackle these challenges, we have taken a pro-access approach through our intellectual property initiatives and are engaging in equitable pricing strategies. In 2014, the Group joined WIPO Re:Search, an open innovation platform sponsored by the World Intellectual Property Organization. With over 90 members worldwide, the platform accelerates early discovery for infectious diseases through intellectual property and knowledge sharing. Furthermore, the company is supporting the World Health Organization (WHO) in the fight against the worm disease schistosomiasis in Africa. The company donates Cesol® 600 tablets containing the active ingredient praziquantel to WHO. In 2014, the Group's donation to WHO amounted to more than 72 million tablets. Since the start of the program, over 54 million patients, primarily children, have been treated. At the end of 2014, the company joined with partners to establish the Global Schistosomiasis Alliance in order to help eliminate schistosomiasis worldwide.

Awareness

Merck KGaA, Darmstadt, Germany, contributes to raising awareness by providing health workers, communities and patients with appropriate tools, knowledge, information and skills to help them make informed decisions. In its report on the Guiding Principles on Access to Healthcare (GPAH), the corporate network Business for Social Responsibility (BSR) recognized the Access Dialogues initiated by Merck KGaA, Darmstadt, Germany, as a best practice for information exchange and discussion between public and private stakeholders. In India, the Group initiated the Suswastha project. The aim is to provide underserved rural populations with affordable health solutions and to engage patients through community-level meetings as well as educative health programs. The Global Pharma Health Fund, a charitable organization funded by Merck KGaA, Darmstadt, Germany, fights counterfeit medicines in developing countries and emerging economies. Additionally, within the scope of the Capacity Advancement Program (CAP) of Merck KGaA, Darmstadt, Germany, the company seeks to improve access to and the quality of diabetes treatment in Africa and India.

Accessibility

Merck KGaA, Darmstadt, Germany, promotes initiatives to strengthen supply chains and to develop localized health solutions in order to deliver and reach out efficiently at the point of care. One example is the Group's Temptation Project, which uses heat and humidity sensors to monitor transportation conditions of all its products shipped from Europe to the rest of the world. Furthermore, the company supports the expertise and training of managers in Africa, Asia and Latin America to strengthen local quality manufacturing standards. The BSR GPAH status report recognized the River Ambulance in India as an innovative approach to reaching underserved populations. The company supports the non-governmental organization River Narmada Samagra, which among other things transports health workers and provides solutions to local populations living in the remote region along the Narmada River.

STRATEGIC SPHERE OF ACTIVITY: ENVIRONMENT

Through our products, we are helping to overcome global challenges such as climate change and resource scarcity. At the same time, we are also helping our customers achieve their own sustainability goals.

Developing sustainable products

We strive to continuously enhance the sustainability footprint of our products and are working to offer our customers products that enable them to reduce the negative impact of their own activities, as well as to achieve their own sustainability goals. For instance, we are developing innovative materials for energy-efficient liquid crystal and OLED displays and are thus helping our customers develop environmentally sustainable processes. Thanks to liquid crystals from Merck KGaA, Darmstadt, Germany, displays consume approximately 20% less energy in comparison to the preceding generation of technology. The new UB FFS technology (ultra-brightness fringe field switching) provides displays with up to 15% more light transmittance, thus further reducing energy consumption. Merck KGaA, Darmstadt, Germany, is also developing liquid crystals for new applications. For instance, we are working with architects, glass makers and facade manufacturers to create the windows of tomorrow. Our ambitious goal is to use smart windows to make buildings more energy-efficient.

Within the scope of our cosmetic products business, we are working to sustainably procure and produce cosmetic ingredients as well as optimize the related production processes. In dialogue with our customers from the cosmetics industry, we are also developing cosmetic formulations that meet strict sustainability criteria and address the current trend towards more natural cosmetics. Several of our products have been certified by Ecocert, an independent organization that represents high international standards for environmentally sustainable products.

At the Life Science business, the Design for Sustainability (DfS) program is especially aimed at reducing environmental impacts, also through customers' own use, for example their greenhouse gas emissions and water use. In 2014, the Life Science business completed the integration of the DfS approach into the product development process. Beginning with the concept stage, product teams identify potential environmental impacts in various product life cycle stages as well as opportunities to make improvements. A scorecard is used to assess product designs in six focus categories: Materials, Energy and Emissions, Waste, Water, Packaging, as well as Usability and Innovation.

Additionally, the Group fosters its employees' ideas for new businesses through its Innospire program. In 2014, the program centered on the topics of energy conservation, conversion and efficiency, water treatment, water quality analyses, and efficient water consumption, along with patient focus, personalized medicine and digital / mobile health. The employees of Merck KGaA, Darmstadt, Germany, were called upon to submit suggestions for new materials and systems, as well as for new business models. During the 2014 Innospire program, 300 ideas were submitted, including some that pertained to the aforementioned topics.

STRATEGIC SPHERE OF ACTIVITY: CULTURE

Cultural promotion is a core element of our engagement in society that reflects the company's centuries-old tradition of supporting art and culture. After all, culture nurtures characteristics that are indispensable to our business activities as a high-tech company: creativity, enthusiasm for new discoveries and the courage to transcend boundaries. Our cultural engagement focuses on music, literature and education.

Deutsche Philharmonie of Merck KGaA, Darmstadt, Germany

The Deutsche Philharmonie of Merck KGaA, Darmstadt, Germany, is our musical ambassador. We consider classical music to be the universal language that brings people together; as such, it represents an important part of our culture. The concerts of this professional ensemble are highly popular, with around 26,000 people attending them per year. They represent an integral part of the cultural life in the vicinity of our global headquarters in Darmstadt. Special events for children and adolescents as well as collaboration with schools, such as the orchestra workshop held once a year since 2010, aim to make classical music more accessible to young people.

Additionally, the Deutsche Philharmonie of Merck KGaA, Darmstadt, Germany, regularly invites international ensembles to play in Darmstadt while also touring the globe itself. In 2014 the orchestra gave a charity concert in the United Arab Emirates to raise money for patients with multiple sclerosis.

Fostering literature

Literature can stimulate the imagination; it can alleviate fears and give courage. Literature can also address scientific topics, thus furthering a deeper understanding of science and research. Through our engagement, we aim to help society better accept science and scientific progress. In addition, as an international company, we foster writers who further cultural exchange in our globalized world.

The company grants and promotes four literary prizes worldwide. Since 1964, we have been sponsoring the renowned Johann Heinrich Merck Award for Literary Critique and Essay, which is presented by the German Academy for Language and Poetry at its annual autumn conference. The award, which comes with a € 20,000 prize, went to publicist Carolin Emcke in 2014.

For 12 years, Merck KGaA, Darmstadt, Germany, has been sponsoring the Premio Letterario of Merck KGaA, Darmstadt, Germany, in Italy. This award is worth € 10,000 and recognizes authors who build bridges between literature and science, thereby making them accessible to a wide audience. In 2014, the award went to Carlo Rovelli, an Italian physicist, and to Francisco Gonzales-Crussi, a Mexican physician and writer.

In India, the company collaborates with the Goethe-Institut Calcutta to present the Merck Tagore Award of Merck KGaA, Darmstadt, Germany, which is worth 500,000 Indian rupees (around € 7,200); this literary prize is granted every two years to

authors who have made a distinctive contribution to the cultural exchange between Germany and India. In April 2014, the award went to Professor Pramod Talgeri, Vice-Chancellor of the India International Multiversity.

In October 2014, the company and the Goethe-Institut Tokyo presented the first-ever Merck Kakehashi Literature Prize of Merck KGaA, Darmstadt, Germany. Worth a total of € 20,000, this award is granted to contemporary works by German authors that are made accessible to a wider readership in Japan. The prize went to German author Arno Schmidt for his book "Seelandschaft mit Pocahontas" (Lake Scenery with Pocahontas) and to the book's Japanese translator, Jun Wada.

Education

We view education as a key component of culture – and vice versa. Education can help us understand culture. But culture can also build a bridge to education; it can stimulate curiosity and nurture creativity. We therefore support educational projects at many of our sites, by granting scholarships for instance, or sponsoring specific classes. In order to promote young scientists, for example, the Group has been organizing the renowned annual "Jugend forscht" competition for the German federal state of Hesse every year since 1996.

RESPONSIBLE GOVERNANCE

Responsible business practices form the foundation of our operating business. We minimize ethical, economic and legal risks so as to secure the Group's license to operate. We take responsibility for our products, our employees, the environment and the community.

Responsibility for our products

The safety of our products is at the core of our corporate responsibility. As long as used properly, our products should pose no risk to customers or the environment, nor should our pharmaceuticals have a negative benefit-risk evaluation. We therefore examine safety across the entire life cycle of our products and continuously take steps to minimize risks. We make our products safer to use by providing patients and customers with extensive information material so that they can use the products in a responsible, safe and proper manner.

Through our Pharma Code for Conducting Pharmaceutical Business and Pharmaceutical Operations, we set standards for responsible marketing activities in order to ensure that patients and health care professionals have access to relevant information and that patients receive effective treatment.

(1) Safety of chemical products

There are numerous regulations intended to ensure that chemicals pose no risk to humans or the environment. Compliance with these regulatory requirements is an important part of our work. Through our Group-wide Product Safety Chemicals policy, we have introduced global processes for defining, steering and implementing product safety, and have established the corresponding management structures. The company incorporates all relevant national and international chemical regulations into its policies and regulations and adheres to them. This includes for instance the EU chemicals regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) and CLP (Classification, Labelling and Packaging of Substances and Mixtures, EU GHS). Furthermore, we are committed to transparency. For instance, in line with the Global Product Strategy, an international initiative of the chemical industry, we provide our customers with product safety summaries for hazardous materials.

Merck KGaA, Darmstadt, Germany, has successfully completed the second phase of REACH implementation. All substances we produce or import in quantities ranging from 100 to 1,000 metric tons per year – 70 different substances in total – were successfully registered with the European Chemicals Agency (ECHA) by June 1, 2013. We are currently in phase three, during which we are working to register all substances produced or imported in quantities between one and 100 metric tons per year by mid-2018. We are fully on schedule with our activities.

(2) Safety of drugs

In everything we do, our number-one priority is patient safety. Ultimate responsibility for drug safety at the Biopharmaceuticals business is borne by our Medical Safety and Ethics Board (MSEB), which is chaired by our Global Chief Medical Officer. The Biopharmaceuticals business' Global Drug Safety unit is responsible for continuously and systematically monitoring the safety of our drugs (pharmacovigilance). This unit processes safety information from various sources such as clinical trials, adverse reaction reports and scientific literature in order to provide patients with risk-benefit evaluations during the entire life cycle of a drug.

(3) Quality of products

Our goal is to provide customers and patients with high-quality brand-name products. Through our quality vision, "Quality is embedded in everything we do!" we remind our employees of their responsibility – across all divisions, all Group functions and all levels of the company.

(4) Supplier management

The company sources raw materials, packaging materials, technical products, components, and services from suppliers in more than 120 countries. Our basic expectations for suppliers and service providers include their compliance with fundamental environmental and social standards, which are primarily derived from the core labor standards of the ILO (International Labour Organisation), from the UN Global Compact, and from the Code of Conduct of the BME (German Federal Association for Materials Management, Purchasing and Logistics). Since 2013, our Group Procurement Policy and Responsible Sourcing Principles have defined our procurement practices and are now integrated into our general terms and conditions. They therefore constitute the foundation of every sourcing transaction and procedure.

Due to the growing significance of emerging markets as sourcing markets for the Group, we have reinforced our efforts to ensure adherence to our supply chain standards.

In addition, the company regularly requests self-disclosures from suppliers and conducts supplier audits. In order to underscore the importance of supplier management as part of our corporate responsibility, we joined the Together for Sustainability (TfS) chemical industry initiative at the end of 2014. Starting in 2015, we will have access to a significantly greater number of supplier assessments via the TfS network, which we can then use to select and manage our suppliers.

Responsibility for our employees

Employees are crucial to the success of a company. They therefore play a central role in our business endeavors. In accordance with the Group's Values, we live a culture of mutual esteem and respect. We want to contribute to entrepreneurial success by recruiting, developing and motivating the most suitable employees. We therefore place a strategic focus on the topics of talent development, compensation and performance management. Furthermore, we want to strengthen the diversity of our employees (see also "Employees" on page 77 et seq.).

Responsibility for the environment

In the manufacture of our products, we seek to impact the environment as little as possible. This especially includes efficiently conserving resources such as energy, water and raw materials while also continuously reducing our emissions and waste.

(1) Environmental management system

Our Corporate EHS Policy defines our principles and strategies for environment, health and safety. It is implemented through internal guidelines and instruction manuals on compliant behavior in day-to-day operations, such as the Group EHS Security and Quality Manual. At all sites, the local EHS managers are in charge of operational environmental protection measures. These employees continually receive training and obtain additional qualifications.

Since our businesses are constantly changing, our environmental management system must also remain flexible and adaptable. For this reason, we have internal and external audits conducted on a regular basis to determine whether the ISO 14001 requirements are still being met. In 2014, Merck KGaA, Darmstadt, Germany, received the ISO 14001 group certificate for its environmental management system for the sixth consecutive year. This certificate covers 58 sites, including eight of the nine production sites of the newly acquired AZ Electronic Materials.

Spending on environmental protection, health and safety totaled € 146 million in 2014, which also includes investments made during the year.

(2) Focus topics: Energy efficiency, greenhouse gas emissions, water scarcity

Climate change and its consequences are one of the main challenges facing society in the 21st century. As a responsible company, it is especially important to contribute to climate protection, which is why we have set ourselves the goal of reducing total direct and indirect greenhouse gas emissions by 20% by 2020, measured against the 2006 baseline.

In order to achieve this goal, the company has launched a climate protection program called EDISON that consolidates all climate change mitigation and energy efficiency activities of the Group. In 2015, as in the three preceding years, the Executive Board will earmark additional funds specifically for measures to conserve energy and reduce greenhouse gas emissions. Through more than 300 EDISON projects that have been initiated since 2012, the company aims to annually save around 60 metric kilotons of CO_2 in the medium term. In 2014, the Group lowered its total greenhouse gas emissions by around 9% relative to the 2006 baseline, despite growth in its operating business.

Around two-thirds of the EDISON projects planned Group-wide have already been or are being rolled out, including major energy generation projects as well. In November 2014, the company commissioned a carbon-neutral biomass energy plant in Goa, India. In December 2014, a further biomass energy station was commissioned in Jaffrey, New Hampshire, USA. At the Darmstadt site, the Group is spending around € 27 million on the construction of two state-of-the-art energy stations. The first of these two stations, which supplies the site's pharmaceutical production operations and research activities with power, was commissioned in July 2014. The second station is currently under construction and will cover the refrigeration requirements of the site's chemical plants and laboratories, among other power needs. Once both plants are in operation, the site's CO_2 emissions will decrease by around 2,500 metric tons per year.

CORPORATE RESPONSIBILITY →
ENERGY CONSUMPTION (IN GWH)

	2010	2011	2012	2013	2014
Total energy consumption	**1,505**	**1,497**	**1,556**	**1,566**	**1,622**
Direct energy consumption	**919**	**920**	**940**	**1,001**	**1,071**
Natural gas	799	802	827	884	937
Liquid fossil fuels	105	105	100	102	107
Biomass and other self-generated renewable energy	15	13	13	15	27
Indirect energy consumption	**586**	**577**	**616**	**565**	**551**
Electricity	518	519	502	500	466
Steam, heat, refrigeration	68	58	114	65	85

Portfolio-adjusted in accordance with the Greenhouse Gas Protocol (including the new production sites of AZ).

CORPORATE RESPONSIBILITY →
CO_2EQ EMISSIONS (EQ = EQUIVALENTS)

Emissions in kilotons, Scope 1 and 2	2010	2011	2012	2013	2014
Total CO_2eq emissions	**577**	**541**	**551**	**567**	**524**
Direct CO_2eq emissions	352	318	321	350	323
Indirect CO_2eq emissions	225	223	230	217	201

Portfolio-adjusted in accordance with the Greenhouse Gas Protocol (including the new production sites of AZ).

Energy management plays a key role in our efforts for sustainable energy efficiency and climate change mitigation. the Group's production sites in Darmstadt and Gernsheim account for around 40% of the company's global energy consumption. In 2012, both of these sites qualified for ISO 50001 – Energy Management System certificates, which were reaffirmed in 2014. The Molsheim site in France, the Poseung site in Korea and the Taoyuan site in Taiwan received the ISO 50001 certificate in 2014 for the first time. The Wiesbaden site was certified for the first time in January 2015. Counting the Bari and Tiburtina sites in Italy, eight the company production sites have a certified energy management system.

The results of the Carbon Disclosure Project likewise indicate that the Group is on the right path. In 2014, Merck KGaA, Darmstadt, Germany, again ranked in performance band B in the Climate Performance Scoring, and was thus clearly in the upper range of all participating companies in the Germany, Austria and Switzerland category. In the Climate Disclosure Scoring, which rates the thoroughness and transparency of a company's reporting, the Group scored 87 out of 100 points, putting it well above the average. The Carbon Disclosure Project, an independent nonprofit organization, assessed the emissions reduction progress and climate change reporting of companies.

In addition to energy, in 2014 Merck KGaA, Darmstadt, Germany, also focused on the topic of water. We examined our sites to determine which ones are located in regions where water is scarce and thus an especially precious resource. Based on a detailed assessment, we plan to implement sustainable water management systems at these sites.

Responsibility for society

The Group sees itself as part of society, not only at its individual locations, but also at a global level. Taking responsibility towards society is an integral part of our entrepreneurial approach. We believe that we can make an important contribution to the community through our knowledge, our skills and our products.

Our social responsibility activities are primarily focused on those areas in which we have specific expertise stemming from our core businesses. We are thus engaged in health and environmental projects and support education, specifically in the natural sciences. We provide disaster relief in emergency situations, especially in those regions in which we operate.

Our subsidiaries are also engaged in a wide variety of local projects. The company has defined overarching criteria for selecting projects, while the decisions concerning specific local projects are made by our subsidiaries. In 2014, the Group spent a total of € 50.8 million on community engagement activities. Of the total monetary and non-monetary donations made by our subsidiaries in 2014, 61 % went to Emerging Markets (Latin America and Asia, excluding Japan), 37 % to Europe, as well as 2 % to the North America and the Rest of World regions.

RESEARCH AND DEVELOPMENT AT THE GROUP

Merck KGaA, Darmstadt, Germany, conducts research and development worldwide in order to develop new products and services designed to improve the quality of life of patients and customers. In 2014, the company focused on further optimizing the relevance and efficiency of its research and development activities. For this purpose, the Group increased the number of new collaborations with external research and development partners.

Around 4,700 employees work for Merck KGaA, Darmstadt, Germany, researching innovations to serve long-term health and technology trends in established and emerging markets as well as in developing countries.

The company spent around € 1.7 billion on research and development in 2014. In our research and development activities, we focus on both in-house research and external collaborations, which enable us to increase the productivity of our research while simultaneously reducing financial outlay.

The organizational set-up of our research and development activities reflects the structure of the Group. Within the Executive Board, Stefan Oschmann, who became Vice Chairman of the Executive Board at the beginning of 2015, was responsible for the Biopharmaceuticals and Consumer Health divisions until December 31, 2014. Effective January 1, Belén Garijo assumed this responsibility as a Member of the Executive Board. Bernd Reckmann is responsible for Performance Materials and Life Science.

BIOPHARMACEUTICALS

General

The Biopharmaceuticals division's R&D continues to evolve with a focus on both strategic and operational improvements. In the course of 2014, with new leadership in place after the appointment of Luciano Rossetti, MD, as Executive Vice President and Head of Global R&D in July, the R&D organization further enhanced the structure of R&D to strengthen collaboration across the spectrum of Research, Development and Commercial, prioritized key development programs, and created a governance model founded on collaboration, agility and objectivity in science.

Along with a sustained effort to foster an environment of end-to-end development – from early research through to late-stage development and product registration – there is also a resolute commitment to ensuring the patient's needs are the primary driver in all decision-making. A patient-centric approach to R&D is becoming increasingly inherent across the Biopharmaceuticals division, from research of the highest quality through to quick and efficient clinical development. Across the continuum of R&D, there is a renewed energy to build a solution-oriented, collaborative and accountable culture that delivers value to the business and to patients. With an unwavering focus on world-class science and the development of strategic external opportunities, the Biopharmaceuticals division R&D aims to accelerate its pipeline.

Research and development strategy

In 2014, the Biopharmaceuticals division's R&D continued its change strategy to better position the organization for success in the years to come. Today, founded on a solution-oriented and collaborative mindset, almost 2,300 R&D professionals are working to advance innovation across the Biopharmaceuticals division R&D pipeline.

In Research, the early phases of discovery remain structured across three distinct yet closely aligned Translational Innovation Platforms (TIPs): Oncology, Immuno-Oncology, and Immunology, as well as a specific department focused on Global Health, which targets critical health needs in vulnerable populations.

With early development now part of Global Development, R&D teams share the common goal of advancing programs in a seamless fashion, collaborating to identify the right strategies for key programs as they progress along the pipeline, and aligning with Commercial from the earliest stages in the process, in order to build the right target product profile in the most effective way possible.

Program prioritization became a critical priority in 2014, streamlining the R&D portfolio based on key data milestones, among other things. With a core set of compounds now targeted as high-priority, the R&D organization can better distribute resources across its programs to optimize their potential for success.

With hubs in Darmstadt, Germany; Boston, Massachusetts, USA; Tokyo, Japan; and Beijing, China, the broad footprint of the Biopharmaceuticals division gives it access to innovation in its key markets. Across the entire biopharma spectrum – from academia and hospitals to research institutions and other companies in the biopharmaceutical industry – the Biopharmaceuticals division complements its internal expertise by leveraging the experience and knowledge of others through partnerships. In 2014, the Biopharmaceuticals division delivered clear examples of this strategic priority, announcing agreements with several companies and academic institutions around the world, as well as awarding external grants for research innovation in several disease areas, as detailed in the next section.

With a forward-looking view, the global R&D organization of the Biopharmaceuticals division is positioning itself for future success. Strong collaboration, an unwavering commitment to exceptional science and a focus on objective decision-making are the key principles that will guide the R&D teams in 2015. As a recent example, the Global Medical Affairs (GMA) organization underwent a complete redesign and strategic refocusing in 2014. Patient centricity was at the core of this effort which has several cornerstones: enhancement of therapeutic area expertise in key areas, a global best-practice sharing working style and the establishment of a novel function known as medical excellence. The new GMA organization was launched in August and implementation at headquarters, in regions and in countries worldwide is progressing rapidly, and is on track for completion in early 2015. The new organization is already delivering enhanced value to life cycle management of the Biopharmaceuticals division's registered products, as well as contributing significantly to the late-stage development process.

At the Biopharmaceuticals division's Investor & Analyst Day in September, the company gave an update on its plans for its Biosimilars activities. In addition to the already disclosed investment plan of € 100 million for 2014, the unit plans to continue to invest in 2015, depending on the outcome of ongoing Phase I studies. Existing partnerships with India's Dr. Reddy's and Brazil's Bionovis will be expanded by another, as yet undisclosed in-licensing agreement for a late-stage biosimilar, initially for smaller emerging markets. Between 2015 and 2016, Merck KGaA, Darmstadt, Germany, plans to initiate between two and five Phase III clinical trials.

BIOPHARMACEUTICALS PIPELINE IN 2014

The Biopharmaceuticals division's core R&D fields include oncology, immuno-oncology, immunology and neurology. The development pipeline continues to be weighted towards oncology; however, 2014 saw important scientific and business development advances in several disease areas. In line with its open collaborative model in R&D, the Biopharmaceuticals division entered into a number of collaborations during 2014, some of which are highlighted below.

In addition, the company announced the launch of the Biopharmaceutical division's Global Grants with a total annual investment of over € 20 million, thereby underscoring the company's commitment to funding scientific innovation and independent medical education around the world. The Grants for Innovation in Research identify and fund what are considered to be the most promising research projects in specific fields worldwide, originating from across the biopharma spectrum, including: academia, research centers, and smaller biotech companies. During the third quarter, Grants for Innovation were awarded in the areas of Multiple Sclerosis, Oncology, Growth Disorders and Fertility.

Oncology

There were several important changes in the oncology pipeline during 2014. Evofosfamide (also known as TH-302), an investigational hypoxia-activated prodrug which is being developed in collaboration with Threshold Pharmaceuticals, is currently being evaluated in two Phase III trials, respectively in locally advanced, unresectable or metastatic soft tissue sarcoma (STS) and in advanced pancreatic cancer. A pre-planned interim efficacy and safety analysis of the STS study was performed in the third quarter of 2014. The Independent Data Monitoring Committee (IDMC), which conducted the analysis, recommended that the study should continue as planned to its natural conclusion. The analysis of the primary endpoint, overall survival (OS), is expected to be conducted in 2016. This date is only an approximation since the final analyses will be triggered only when a certain number of events have occurred. The second Phase III study (known as MAESTRO), which is being performed in advanced pancreatic cancer, reached planned enrollment of 660 patients in October. It is estimated that the final analysis of the primary endpoint of this trial, which is OS, will be performed in 2016. A Phase II trial of evofosfamide in combination with pemetrexed as a potential second-line treatment for patients with advanced non-squamous non-small cell lung cancer (NSCLC) was initiated in the second quarter of 2014. The primary endpoint in this 440-patient trial is OS.

As regards Erbitux® (cetuximab), new biomarker findings from a retrospective analysis of the completed Phase III CRYSTAL study were presented at the American Society of Clinical Oncology (ASCO) 50th Annual Meeting in Chicago. This study compared Erbitux® plus FOLFIRI with FOLFIRI alone in the first-line treatment of metastatic colorectal cancer (mCRC). A significant clinical improvement in terms of response rate, progression-free survival and overall survival was observed in patients with RAS wild-type tumors when Erbitux® was added to FOLFIRI compared with patients receiving FOLFIRI alone. Additionally, the results of the FIRE-3 study, a randomized, controlled, open-label, Phase III trial to compare the efficacy of Erbitux® plus FOLFIRI with bevacizumab plus FOLFIRI in first-line KRAS wild-type mCRC (mCRC), were published in Lancet Oncology in August 2014. Updated results in the RAS wild-type population were presented at the 2014 ESMO Congress in Madrid in September. While the primary endpoint of increased overall response rate with Erbitux® plus FOLFIRI compared with bevacizumab plus FOLFIRI was not met, a pre-planned exploratory analysis in the patient sub-group selected based on RAS status showed a statistically significant difference in overall survival in favor of Erbitux®. Given this clinically meaningful difference in overall survival, the authors state that "the data suggest that FOLFIRI plus cetuximab should be chosen as the first-line treatment regimen for patients with RAS wild-type mCRC." (Lancet Oncology 2014; 15: 1,065–1,075).

These results are in line with the Erbitux® label as updated by the European Medicines Agency (EMA) in December 2013, and were included in an update of the Summary of Product Characteristics in June 2014. They confirm that RAS biomarker testing is essential for patient-centric care and is thus a truly personalized approach to the treatment of mCRC. Results of a second randomized, controlled, open-label, Phase III trial (CALGB / SWOG 80405), comparing Erbitux® plus chemotherapy (either FOLFOX or FOLFIRI based on each investigator's choice) as compared to bevacizumab plus chemotherapy, were presented at the ASCO 2014 Congress and the ESMO 2014 Congress. Although showing a slight but not significant trend towards improved overall survival for patients in the RAS wild-type population treated with Erbitux® plus chemotherapy, the results seemed to differ from those of the aforementioned study. However it should be noted that the data so far are immature and the final results have not yet been published in a peer-reviewed journal.

The Chinese Food and Drug Administration (SFDA) issued a negative opinion concerning the application of Erbitux® in squamous cell carcinoma of the head and neck (SCCHN) because it considered the bridging study in Chinese patients inadequate to justify approval in China. The Biopharmaceuticals division decided to perform a randomized, controlled study in China in SCCHN with a view to obtaining approval for this indication. Erbitux® is currently registered in over 90 countries in this indication.

In June, the Group announced it had signed an agreement to collaborate with Sysmex Inostics GmbH, Hamburg, Germany, for the development and commercialization of a blood-based RAS biomarker test for patients with mCRC. Blood-based biomarker testing is a faster and easier approach for determining the mutation status of tumors as it requires only a small blood sample rather than a tissue biopsy procedure. The test has the potential to provide mutation status results within days, which in turn can help guide treatment decisions. In addition, it may become the method of choice in situations where a tissue biopsy is difficult to obtain, for example in patients whose physical condition does not allow for a surgical procedure.

After a careful analysis, the Biopharmaceuticals division decided not to pursue its development program for Sym004, and to return the rights to the compound to Symphogen for further development. This decision was not related to any new safety or efficacy findings. It will allow the company to refocus its efforts on other pipeline candidates.

Subsequent to the promising results of pre-clinical work and the ongoing Phase I trial of its c-Met kinase inhibitor tepotinib (MSC 2156119J), the Biopharmaceuticals division decided to embark on Phase I / II studies in solid tumors, especially focusing on the indications of NSCLC and hepatocellular carcinoma. Studies in both indications were initiated in the first quarter of 2014.

For abituzumab, an investigational anti-integrin monoclonal antibody designed to target certain integrins expressed on tumor and endothelial cells, two Phase II trials were completed this year. The results of the POSEIDON study, a combination of abituzumab with Erbitux® and irinotecan in KRAS wild-type mCRC, were presented at the ESMO World Congress on Gastrointestinal Cancer. Although the primary endpoint of increased progression-free survival was not met, the addition of abituzumab to Erbitux® and irinotecan resulted in a trend toward improved overall survival; high $\alpha v\beta 6$ integrin expression was identified as a potential predictive marker of increased response rate, as was prolonged overall survival in the abituzumab treatment arms. Further biomarker analyses are warranted to confirm and further validate the current findings. The results of the PERSEUS study in patients with metastatic castration-resistant prostate cancer were presented at the

2014 ASCO Meeting. No significant improvement in progression-free survival was observed and development therefore will not continue in this indication.

BGB-290 (an inhibitor of poly [ADP-ribose] polymerase, or PARP), currently being developed in collaboration with BeiGene, entered Phase I clinical testing in patients with solid tumors.

Enrollment was discontinued in a combination Phase II study of the MEK inhibitor pimasertib (a small-molecule inhibitor of MEK, an enzyme that is a part of a pathway that is frequently activated in many types of solid tumors) and the PI3K/mTOR inhibitor from Sanofi U.S. (SAR245409) in low-grade serous ovarian cancer. This decision was based on the results of a futility analysis, conducted by the IDMC, which indicated that the trial was no longer expected to achieve its objective of showing a meaningful difference between the efficacy of the combination compared with pimasertib alone. However, the safety profile was in line with previous clinical data for this combination, and no unusual toxicities outside of those associated with this class were observed. The further development of pimasertib in pancreatic cancer was also discontinued as a Phase II study in this indication did not reach its primary endpoint of prolongation of progression-free survival. Pimasertib will continue to be investigated in patients with NRAS mutant malignant melanoma in a Phase II trial which is fully recruited, and expected to report results on progression-free survival (primary endpoint) during 2015. Additionally, a Phase Ib trial in solid tumors, in collaboration with Sanofi U.S., investigating pimasertib in combination with Sanofi U.S.'s hDM2 antagonist (SAR405838) will also continue.

MSC 2490484A (DNA-PK inhibitor), a small-molecule inhibitor of the repair mechanisms of DNA damage in cancer cells, entered Phase I clinical testing in patients with solid tumors.

The Biopharmaceuticals division and Sutro Biopharma, a privately held biotechnology company, entered into a collaboration and license agreement to develop next-generation antibody drug conjugates (ADCs) for multiple targets in oncology. The Biopharmaceuticals division and Mersana Therapeutics, Inc. also announced a cooperation agreement to develop next-generation ADCs. ADCs are composed of an antibody linked to a cytotoxic drug, whereby the antibody part specifically targets and delivers the cytotoxic drug to cancer cells, which could lead to higher drug levels at the tumor site.

In October 2014, the Biopharmaceuticals division, the Institute of Cancer Research (ICR), London, and the Wellcome Trust, London, entered into a co-development and license agreement building on two independent research programs at both the ICR and the Biopharmaceuticals division to identify inhibitors of tankyrase, an enzyme of the poly (ADP-ribose) polymerase (PARP) family. In a joint effort, this collaboration will aim to progress chemical compounds that have emerged from both organizations' tankyrase inhibitor programs towards clinical development. At the end of the collaboration period, the Biopharmaceuticals division will take over full responsibility for the selected clinical development candidate. The agreements mentioned above underline the Biopharmaceuticals division's approach to employing a collaborative research and development model, creating strategic partnerships in order to drive innovation.

Immuno-Oncology

For avelumab (also known as MSB0010718C), an investigational anti-PD-L1 antibody currently in development, initial data from the Phase I dose escalation study in solid tumors were presented at ASCO 2014. The study is advancing rapidly and anti-tumor activity of avelumab has already been observed in a number of patients, notably in NSCLC and in ovarian cancer. Avelumab is also being tested in a Phase II study initiated in July 2014 in patients with metastatic Merkel cell carcinoma. This is an aggressive form of skin cancer, which is rare and currently has limited treatment options. The study is a multicenter, single-arm, open trial in patients who have previously been treated with one line of chemotherapy.

In November 2014, the Group announced that it had entered into a global strategic alliance with Pfizer Inc. to develop and commercialize avelumab in order to accelerate both companies' presence in immuno-oncology. The antibody will be developed as a single agent as well as in various combinations with Pfizer's and the Biopharmaceuticals division's broad portfolio of approved and investigational pipeline candidates. The two companies will also combine resources and expertise to advance Pfizer's anti-PD-1 antibody into Phase I trials. As part of the strategic alliance, Merck KGaA, Darmstadt, Germany, will co-promote Pfizer's Xalkori®, a medicine to treat NSCLC, in the United States and several other key markets. Global collaboration with Pfizer is expected to accelerate the development of avelumab in multiple tumor types. Up to 20 high priority immuno-oncology clinical development programs are expected to commence in 2015, including up to six pivotal registration studies. The global alliance is expected to enable the Group's entry into the U.S. oncology market and to strengthen its Oncology franchise in several other important global markets.

Concerning tecemotide, an investigational cancer immunotherapy (also known as L-BLP25), a Phase III study called START2 was initiated in April 2014, following the results of the START study of tecemotide in stage III NSCLC. Although START did not meet its primary endpoint of demonstrating an improved OS with tecemotide compared with placebo in the overall patient population, data from an exploratory analysis of a pre-defined subgroup of patients who received tecemotide after concurrent chemoradiotherapy (CRT), showed that these patients survived longer. However in September, the results of study EMR 63325-009, a Phase I/II trial in Japanese patients with stage III, unresectable, locally advanced NSCLC, the majority of whom had received concurrent CRT, indicated that no effect had been observed for either the primary endpoint, OS, or for any of the secondary efficacy endpoints. Based on these results, the Biopharmaceuticals division decided to discontinue the clinical development program for tecemotide.

After a careful analysis of its pipeline assets the Biopharmaceuticals division decided to discontinue development of NHS-IL2 (MSB0010445), also known as Selectikine, which was in Phase II testing in advanced melanoma. This decision was not related to any new safety or efficacy findings. It will allow the company to refocus its efforts on other pipeline candidates.

Merck KGaA, Darmstadt, Germany, and MorphoSys entered into a strategic immuno-oncology collaboration to discover and develop therapeutic antibodies against immune checkpoints. Under the terms of the agreement, the two companies will join forces to develop therapies that modulate the immune system's natural ability to fight tumors. MorphoSys will apply its proprietary Ylanthia® antibody phage library and technology platform to identify antibodies against targets of interest. With its strong portfolio and capabilities in the field of immuno-oncology and clinical development, the Biopharmaceuticals division will be fully responsible for execution of development from Phase I onwards.

Immunology

In the field of Immunology, a Phase IIb study of atacicept, an anti-Blys and anti-APRIL fusion protein, in patients with systemic lupus erythematosus (SLE) was initiated. This study is known as ADDRESS II and follows the promising results of the completed APRIL SLE study which were presented at the Annual Meeting of the European League against Rheumatism (EULAR) in 2013. ADDRESS II is a double-blind, placebo-controlled study of atacicept given at two doses in 279 patients with active SLE to assess its efficacy and safety in reducing SLE-disease activity in patients receiving standard-of-care therapy. The outcome of this study is expected in 2016. A two-year long-term extension study (ADDRESS II LTE) has also been initiated in order to develop atacicept's safety database.

Also aiming at the treatment of SLE, an agreement was entered into by Merck KGaA, Darmstadt, Germany, Pfizer Inc. and the Broad Institute in Cambridge, Massachusetts, in April. The collaboration is focused on the genomic profiling of patients with SLE and lupus nephritis. The goal of this research project, which will be jointly funded by Merck KGaA, Darmstadt, Germany, and Pfizer, is to identify biomarkers to better define target patient populations for future therapies as well as to discover potential novel drug targets for innovative therapies.

The FORWARD study, a Phase II trial of sprifermin, an investigational fibroblast growth factor given at four doses vs placebo in patients with primary osteoarthritis of the knee, is being conducted in collaboration with the Group's strategic alliance partner, Nordic Bioscience Clinical Development. The study completed enrollment in mid-2014, following the inclusion of 549 patients, and the outcome of the study is expected to become available in 2016. Following the completion of a Phase I study in healthy volunteers of the anti-IL-17-A/F nanobody, MSB 0010841 (also known as ALX-0761), a Phase Ib study in patients with psoriasis has been initiated.

A small-molecule BTK inhibitor (MSC 2364447) entered Phase I clinical testing in healthy volunteers in the third quarter of 2014. This investigational agent is a highly selective inhibitor of the Bruton's tyrosine kinase (BTK), which is important in the development and functioning of various immune cells including B lymphocytes and macrophages. Preclinical research suggests it may be therapeutically useful in certain autoimmune diseases.

Neurology

The Biopharmaceuticals division and the Institute of Experimental Neurology at San Raffaele University and Research Hospital in Milan announced the continuation of a strategic alliance to develop pre-clinical and clinical research projects in the field of neurodegenerative diseases. The translational research will focus on developing innovative therapies against serious and disabling neurological diseases affecting young adults in particular, such as multiple sclerosis (MS). Established in 2004, the renewal of this partnership extends the agreement between the parties for two additional years.

Following completion of a Phase I clinical study that demonstrated encouraging MRI results following intradermal treatment of patients with relapsing multiple sclerosis (RMS) with ATX-MS-1467, an investigational immune-tolerizing agent, a Phase II study has been initiated in RMS.

Following a thorough portfolio review, the Biopharmaceuticals division decided not to pursue further development of plovamer acetate, an investigational second-generation copolymer for relapsing-remitting MS. As a consequence, the Phase II study was terminated early. Merck KGaA, Darmstadt, Germany, and Ono Pharmaceutical reached a mutual agreement to terminate the license agreement on ceralifimod (ONO-4641) since the project did not meet the company's threshold for continued investment.

The Biopharmaceuticals division remains committed to driving innovation in the field of MS and improving the lives of people living with the disease. In refocusing the pipeline, additional resources will be available to strengthen our pipeline in this area and bring additional, meaningful products and devices to people with MS.

Fertility

In the field of Fertility, a Phase III trial of Pergoveris® was initiated in the first quarter of 2014 and enrollment was already completed, following the inclusion of 946 patients, in the third quarter. The trial, which is known as ESPART® (Evaluating the Efficacy and Safety of Pergoveris® in ART), is a multicenter, randomized, controlled, single-blind trial with the primary endpoint being the total number of retrieved oocytes. The study is designed to assess the efficacy and safety of Pergoveris® (follitropin alfa and lutropin alfa) versus Gonal-f® (follitropin alfa) for multifollicular development as part of an Assisted Reproductive Technology (ART) treatment cycle in women who are classified as poor ovarian responders (POR) to previous ART. Data are expected in 2015.

Endocrinology

In the field of Endocrinology, the Biopharmaceuticals division announced in April that the Phase IIIb study of Kuvan® (sapropterin dihydrochloride) had met its primary endpoint. At the Society for the Study of Inborn Errors of Metabolism (SSIEM) Annual Symposium in Innsbruck in early September, detailed 26-week data from the study known as SPARK (Safety Pediatric EfficAcy PhaRmacokinetic with Kuvan®) were presented. Results from the study showed that the addition of Kuvan® at a dose of 10 or 20 mg/kg/day to a phenylalanine-restricted diet significantly increased phenylalanine tolerance in children with phenylketonuria (PKU) who are below four years of age and responsive to Kuvan®, compared with patients on diet alone. The SPARK study was requested by the EMA as a post-authorization measure. Given the positive outcome of the study, the Biopharmaceuticals division has submitted an application to the EMA for a label extension.

BIOPHARMACEUTICALS PIPELINE, AS OF DECEMBER 31, 2014

Therapeutic area	Compound	Indication	Status
Oncology	Evofosfamide (TH-302; hypoxia-activated prodrug)	Soft tissue sarcoma	Phase III
	Evofosfamide (TH-302; hypoxia-activated prodrug)	Pancreatic cancer	Phase III
	Evofosfamide (TH-302; hypoxia-activated prodrug)	Non-small cell lung cancer	Phase II
	Evofosfamide (TH-302; hypoxia-activated prodrug)	Melanoma	Phase II
	Evofosfamide (TH-302; hypoxia-activated prodrug)	Hematological malignancies & solid tumors	Phase I
	Abituzumab (DI17E6; anti-integrin mAb)	Colorectal cancer	Phase II
	Pimasertib (MEK inhibitor)	Melanoma	Phase II
	Pimasertib/hDM2 inhibitor combination	Solid tumors	Phase I[1]
	Tepotinib (MSC 2156119J; c-Met kinase inhibitor)	Solid tumors	Phase I
	MSC 2363318A (P70S6K and Akt inhibitor)	Solid tumors	Phase I
	BGB-283 (BRAF inhibitor)	Solid tumors	Phase I
	BGB-290 (PARP inhibitor)	Solid tumors	Phase I
	MSC 2490484A (DNA-PK inhibitor)	Solid tumors	Phase I
Immuno-Oncology	MSB 0010360N (NHS-IL12; cancer immunotherapy)	Solid tumors	Phase I[2]
	Avelumab (MSB 0010718C; anti-PD-L1 mAb)	Merkel cell skin carcinoma	Phase II
	Avelumab (MSB 0010718C; anti-PD-L1 mAb)	Solid tumors	Phase I
Immunology	Atacicept (anti-Blys/anti-APRIL fusion protein)	Systemic lupus erythematosus	Phase II
	Sprifermin (fibroblast growth factor 18)	Osteoarthritis	Phase II
	MSB 0010841 (ALX-0761; anti-IL-17 A/F nanobody)	Psoriasis	Phase I
	MSC 2364447 (BTK inhibitor)	Healthy volunteers	Phase I
Neurodegenerative Diseases	ATX-MS-1467 (immune-tolerizing agent)	Multiple sclerosis	Phase II
Fertility	Pergoveris® (follitropin alfa and lutropin alpha)	Assisted Reproductive Technology, poor ovarian responders	Phase III
Endocrinology	Kuvan® (sapropterin dihydrochloride)	PKU in pediatric patients < 4 years	Submitted for approval[3]

[1] Combined with hDM2 inhibitor (SAR405838) from Sanofi, conducted under the responsibility of Sanofi.
[2] Sponsored by the National Cancer Institute (USA).
[3] Post-approval request by the European Medicines Agency (EMA). EMA application under review.
More information on ongoing clinical trials can be found at www.clinicaltrials.gov.

IL: Interleukin
hDM2: Human Double Minute 2 homolog
mAb: Monoclonal antibody
MEK: Mitogen Activated Protein Kinase
EGFR: Epidermal Growth Factor Receptor
PARP: Poly [ADP-Ribose] Polymerase
BTK: Bruton's Tyrosine Kinase
PKU: Phenylketonuria

CONSUMER HEALTH

In its Consumer Health business, the company markets over-the-counter medicines and food supplements in Europe – primarily for France, Germany, and the United Kingdom – as well as in Latin America and Southeast Asia, where sales volumes are rising. The focus of research and development activities in Consumer Health is on constantly improving tried and proven formulations consistent with the needs of consumers. Innovations by Consumer Health center on consumers and their needs. On the one hand, established products are being adapted to changing consumer needs while on the other hand, new technological innovations are being developed to satisfy entirely new needs. A good example of this is the new product Apaisyl® Nits Detect, which colors nits on the scalp with a fluorescent dye, thus making it much easier to comb them out. Since 2014 the Group has been increasingly entering into cooperation agreements with independent research institutions in order to tap into their expertise in developing new and existing products in a targeted manner. At the same time, Consumer Health is further developing its established brand-name products by making them simpler to use and by offering accompanying services.

PERFORMANCE MATERIALS

Merck KGaA, Darmstadt, Germany, is the undisputed market and technology leader in liquid crystals, which are primarily used in televisions and mobile communication applications. We are also one of the leading suppliers of decorative and functional effect pigments. Our high-tech materials and solutions are used by customers in the consumer electronics, lighting, coatings, printing technology, plastics applications, and cosmetics industries. In Performance Materials, the Group is also focusing on the growth dynamics of emerging markets. As a new part of Performance Materials, AZ Electronic Materials (AZ) brings additional fields of business to the company portfolio. AZ serves two main markets, the sector of IC Materials for integrated circuit manufacture, and materials for display applications (Optronics).

Liquid crystals

In the area of LC displays for mobile devices, Merck KGaA, Darmstadt, Germany, has developed a new LC switching mode, UB-FFS technology (ultra-brightness fringe field switching). The new LC switching mode has the potential to increase display light transmittance by 15%. The new technology offers many advantages: Firstly, it reduces energy consumption and increases the battery life of the mobile devices. Secondly, it improves mobile display quality and supports the trend towards higher resolutions. The market launch is proceeding faster than expected. The new switching mode is already used in many smartphones and tablet PCs.

The Merck KGaA, Darmstadt, Germany, "LC 2021" strategic initiative combines the company's future LC activities, with a special focus on applications beyond displays. For example, liquid crystals can regulate the light and heat transmittance of windows in building facades. Since the acquisition in July 2014 of the remaining interest in Peer+, a Dutch specialist for smart window technology, the company has now been fully integrated. Merck KGaA, Darmstadt, Germany, is investing further in LC windows, the new name for the material development of these applications. The pilot production of the windows is in full swing. Several examples were installed in the Group's own Innovation Center at the Darmstadt site in early 2015. Collaborations with partners in the glass and facade technology sector are planned for broad-based marketing of the windows.

In November, a team of Merck KGaA, Darmstadt, Germany, won the 2014 Meyer-Galow Prize for business chemistry. Four LC researchers and managers were recognized for their work on the project "Energy-efficient liquid crystals for smartphones and tablet PCs".

OLEDs

Organic light-emitting diodes (OLEDs) are used in innovative lighting applications and display technologies. They provide brilliant colors and sharp images from any viewing angle; they have a long lifespan and are highly energy-efficient. In addition, OLEDs enable round or flexible displays, making them perfect for use in the latest technical applications. One such example is the smartwatch, a wristwatch that provides Internet access along with additional computer functionality.

The name of the Merck KGaA, Darmstadt, Germany, product line for these types of applications is livilux®. The company has developed a strong portfolio of worldwide patents, based on more than ten years of experience. Development partnerships with customers are a way of testing new technologies and making them market-ready. For instance, Performance Materials has co-developed a technology that can be used to print OLED displays in collaboration with printer manufacturer Seiko Epson. While the Group contributed its expertise in OLED material and ink development to the collaboration, Seiko Epson contributed its expertise in print heads featuring Micro Piezo inkjet technology as well as process expertise. The jointly developed technology offers the advantage of lower costs and higher material efficiency. In contrast to evaporated OLED displays, the materials are applied at room temperature and under normal pressure in the case of printed OLED displays. In addition, this technique only deposits material in the areas where diodes are actually located, thereby helping to conserve resources.

High-quality pigments and functional materials

Besides high-quality decorative effect pigments, the company also offers functional materials used, for example, in laser marking of plastics, conductive coatings, and heat-reflective glazing for greenhouses. The Meoxal® brand is the latest development in effect pigments. These pigments captivate with their brilliant color saturation and exceptional performance, as a result of their innovative layer technology and the use of aluminum flakes as substrate. They are highly suitable for a multitude of high-performance applications, especially for automotive and plastic coatings. The third pigment in the new brand family – Meoxal® Atacama Red – was launched in the second quarter of 2014.

With Xirallic® NXT, the Performance Materials division is launching a new patented product generation of the well-known high-tech effect pigments. These offer customers an exceptional "living-sparkle-effect", high styling potential and consistent quality. The first product of the new generation – Xirallic® NXT Panthera Silver – is a dark-gray, metallic effect pigment, which the Group has been offering since April 2014.

AZ Electronic Materials

In the IC (Integrated Circuit) Materials business, which supplies products for integrated circuit manufacture, AZ has developed a range of products for "Extreme UV Lithography" (EUV) applications which has already been qualified by several customers from the semiconductor industry for their processes. AZ's "shrink" technology makes it possible to reduce lithographically generated structures after patterning, thus circumventing resolution limitations of existing exposure equipment in a cost-effective manner. New products are on the verge of production implementation. AZ is a leader in Directed Self Assembly (DSA), a revolutionary technology which is crucial to all advanced semiconductor manufacturers. In DSA, the information for the smallest structures is already contained in the chemical make-up of the coating material. Additionally, AZ is intensively engaged in developing thick perhydropolysilazane (PHPS) products for 3D-chip-technology as well as novel insulator materials.

The continuous development of flat-panel display technology towards larger formats and higher operating frequencies requires the use of transistors with feature sizes that are at the limit of the resolution capability of the exposure tools. In the Optronics business, AZ has successfully transferred from its IC sector so-called tandem resin technology with a specific molecular weight distribution, thus achieving a photoresist resolution near the theoretical resolution limit. In silicon technology, new siloxane materials are in an advanced stage of qualification as planarization materials for high-resolution displays and as a thin film barrier for OLED lighting.

LIFE SCIENCE

With nearly 800 employees focused on R&D, the Life Science division is working with customers to develop innovative solutions for the research, development and production of pharmaceutical and biotech processes worldwide. Through dedicated collaboration on new scientific and engineering insights, the Life Science division serves as a strategic partner to customers and helps advance the promise of life science.

In 2014, the Life Science division launched over 20 new products, proving the innovative power of its Research & Development organization, and once again received R&D Magazine 100 Awards for innovative products. The 52nd annual R&D Awards recognize the 100 most technologically significant products introduced onto the market over the past year. The Life Science division's products that were recognized are the SmartFlare™ detection reagent and Clarisolve® depth filters.

The SmartFlare™ detection reagent is a novel probe capable of detecting specific mRNAs and miRNAs in live, intact cells. This technology allows for carrier-free cellular endocytosis of the reagent, followed by detection and relative quantitative analysis of RNA levels. Because the reagent leaves the cell after the detection event, the same sample can be used for any downstream analysis, meaning it is possible to assess multiple biomarkers or downstream functionalities in the same cells.

Clarisolve® depth filters are specifically tuned to the particle size distribution of various pretreatment methodologies, enabling the fastest and most efficient way to clarify high-density streams and easily transfer processes from upstream to downstream without the use of centrifugation. Clarisolve® depth filters were designed for high cell density/titer mammalian cell culture feed streams for mAb production. Early success has also been achieved in microbial and vaccine applications.

In March 2014, the Life Science division announced a clinical research, licensing and joint development agreement with Sysmex Corporation of Japan. This collaboration will use the Life Science division's flow cytometry technology as a platform to accelerate the creation of new, more powerful diagnostic tools for research in blood disorders. If successful, Sysmex and the Life Science division will collaborate on developing the imaging flow technology platform for future commercialization in hematology.

In the second quarter of 2014, the Life Science division launched a € 12 million investment in its Molsheim, France facility. This investment will expand the Life Science division's ready-to-use (RTU) media manufacturing capabilities, better provide security of supplies for customers in the region, and sustain the heipha Hycon product lines. The increased manufacturing capacity will serve global market demand, and will ensure sufficient capacity to support the market growth.

The Bioscience business area launched Simplicon™ RNA Reprogramming Technology, which uses synthetic self-replicating RNA to create large numbers of human induced pluripotent stem cells (iPSCs) using a single transfection step. This efficient reprogramming of somatic cells offers a more defined and safer system for iPSC generation.

The Process Solutions business area expanded Provantage® upstream bioproduction services to the North American market. The expansion provides North American customers with media and feed screening, small-scale material production, and optimization of conditions for scale-up and technology transfer. Process Solutions also announced a new Formulation Lab in India, its first outside of Europe. The Lab is strategically located at Nerul, Navi Mumbai, with easy accessibility from the major pharmaceutical manufacturing centers at Ahmedabad, Goa and Hyderabad. The facilities at the lab are built to provide services and application assistance to the pharmaceutical industry for classical pharmaceutical clients working on solid-dose formulations.

2014 also marked the 40th anniversary of the Steritest™ system, the first closed filtration device for sterility testing. Since introducing the Steritest™ system in 1974, the Life Science division has improved standards in sterility testing, reducing the risk of false positive and false negative results, increasing reliability and streamlining workflows for microbiologists around the world. As part of the celebration of 40 years of sterility testing, the Life Science division will be launching three new pumps in 2014.

In August 2014, the Life Science division and Samsung BioLogics signed a Memorandum of Understanding for a strategic alliance in the biopharmaceutical business. The proposed alliance is intended to encompass a long-term supply agreement in which the Life Science division will provide raw materials for biopharmaceutical manufacturing.

In the third quarter of 2014, the Life Science division also announced the opening of a new Biomanufacturing Sciences Training Center (BSTC) facility in Tokyo, Japan. The state-of-the-art facility is designed to help biopharmaceutical companies develop manufacturing processes and find solutions to processing challenges in collaboration with engineers from the Life Science division. The goal for this facility, now the ninth of its kind for the Life Science division, is to enhance the customer experience by delivering innovation, quality products, and comprehensive technological support – all major components of our product and service portfolio offering.

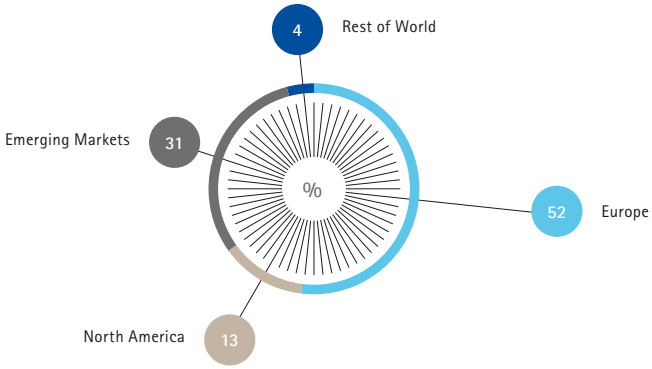
In December, the Life Science division launched its first round of new large lab water purification systems (AFS) expanding the ability to feed high throughput analyzers.

EMPLOYEES

Employees are crucial to the success of Merck KGaA, Darmstadt, Germany. We are therefore focusing on recruiting the right employees with the right capabilities at the right time and retaining this talent. Within the context of our Group strategy we also place particular emphasis on talent development, compensation and performance management. In addition, we want to foster employee diversity in order to be optimally positioned to meet future challenges together with our workforce.

As of December 31, 2014, the Group had 39,639 employees worldwide (2013: 38,154.) The slight increase in the number of employees is largely attributable to the integration of AZ Electronic Materials. In 2014, the company was represented by a total of 146 companies in 65 countries.

DISTRIBUTION OF EMPLOYEES →
BY REGION
in %



Strategic initiative: "ONE Talent Development, Rewards and Performance Management"

Within the framework of the "Fit for 2018" program, the company launched the capability initiative "ONE Talent Development, Rewards and Performance Management" as part of its Group strategy. The aim is to attract highly qualified graduates from around the world to the Group and to retain them.

Performance management

Merck KGaA, Darmstadt, Germany, considers it important to identify employee potential early on and foster it on an individual basis. We want to offer our talent attractive career opportunities, continual personal and professional development as well as prospects within the company. Our processes are also meant to help strengthen the performance culture at the company and to ensure that internal positions are filled in an even more efficient manner. In 2014, we rolled out the talent and performance management process at Merck KGaA, Darmstadt, Germany, globally. The evaluations of all participating employees are now carried out on the same basis and are recorded in a uniform IT system.

In this context we systematically combine talent recognition with the Performance Management Process, which allows us to objectively assess the performance of each individual employee. Clear objectives, differentiated and open feedback, and individual development plans are important prerequisites for personal development, as well as for the success of the company. As of 2015, the Group will be linking the variable bonus more closely with performance. In this way we will create greater incentives for employees to achieve top performance, while at the same time allowing them to participate to a greater extent in the success of the company.

Internal talent development and external recruiting

Through the aforementioned approach, the Group aims to bolster its performance culture and develop talent in a more targeted manner. We succeeded with this again in 2014, expanding our workforce pool to internally fill management positions when they become vacant. In 2014, the vast majority of management position vacancies were also filled by internal candidates. In addition, the company recruited external executives in order to add new outside perspectives to our long-standing in-house expertise.

Merck KGaA, Darmstadt, Germany, is using the motto "Make great things happen" to position itself in the global job market, which conveys to potential applicants a sense of what makes the company unique: an inspiring, motivating work environment in which innovations thrive; an environment in which everyone has the opportunity to apply their ideas and engagement to benefit customers and the company, while at the same time growing as employees.

Focus areas: Internationality, demographics, gender ratio

In our global markets, we want to hire the right people and retain them. It is also our goal to anchor knowledge about our growth markets within the company. Therefore, as part of our diversity and inclusion strategy, we are focusing on topics such as internationality, demographics and gender balance.

People from a total of 122 different nations work at Merck KGaA, Darmstadt, Germany. Only 27% of our employees are German citizens and 72% work outside Germany.

In Germany, several other EU countries, the United States, and Japan we must prepare ourselves for demographic change. In these countries, the average age of our employees exceeds 40 – and we assume that this figure will continue to rise in the coming years. In Europe, we are addressing these demographic challenges through various programs. These include adapting workplaces to the needs of older employees and establishing a health management program to maintain their ability to do their jobs. In addition, the company created the preconditions in 2014 in order to attract the interest of even more young specialists to the Group and to retain them.

Women currently make up 41% of the workforce. Since the ratio of women to men varies widely across the different regions, divisions and functions, the company has set itself the goal of increasing the percentage of female employees wherever they are underrepresented. Here we take into account the situation that is typical for the industry as well as regional differences.

A diverse management team

We believe that balanced diversity among management enhances career advancement opportunities for talented employees while also helping to provide a broad experience base within the company. In addition, it allows for differentiated decision-making, thereby making a significant contribution to the success of the company.

As a global company, Merck KGaA, Darmstadt, Germany, considers it highly important to have an international management team. Currently, 60% of our managers – meaning positions rated Global Grade 14 and above in our Global Grading System – have a nationality other than German. Altogether, 67 different nationalities are represented in such positions.

The percentage of management positions held by women (Global Grade 14 and above) is currently 26% Group-wide. In the subsidiaries outside Germany, this percentage is higher than at global headquarters in Darmstadt. Likewise, more women work in managerial positions in our Pharmaceuticals business than in our Chemicals business. Certain Group functions such as IT have a lower percentage of women in management positions. However, the figures are clearly increasing across the Group as a whole. The company has reached its strategic goal of raising the percentage of management positions held by women from 25% to 30% and intends to further increase this percentage by 2016. In order to achieve this ambition, the Group is implementing numerous measures at local level. In 2014, we filled two of four divisional leadership positions with employees who are not from Germany. In addition, Belén Garijo, a native of Spain, joined the Executive Board and took over leadership of the Healthcare business sector of Merck KGaA, Darmstadt, Germany, at the beginning of 2015.

Workforce diversity

To us, diversity means much more than having a certain gender ratio and is not only important to us on a managerial level, but also throughout the entire workforce. Together with a culture of inclusion, diversity promotes innovation and improves team performance. In addition to the Chief Diversity Officer, who is responsible for strategically managing diversity within the company, we also established the Diversity Council in 2013. This aims to build further buy-in for diversity and inclusion within the company. The council consists of high-ranking managers from all parts of the company. In 2014, the Diversity Council developed the Diversity Framework, which bundles the diversity and inclusion strategies. It focuses on the following topics: recruiting the right people to work for the company, developing and retaining them, promoting efficient collaboration, driving innovations and improvements, and serving customers with diverse needs.

In addition, the company supports specific employee networks in order to foster exchange among like-minded individuals. In 2014, we launched a project to develop the individual members of the networks in a targeted manner and to utilize the potential of the networks to an even greater extent for the Group's business activities. The results were presented to the Diversity Council and will be implemented in 2015.

Industrial safety

As a responsible employer, it is especially important to us to do everything in our power to prevent workplace-related illnesses and accidents. We apply the lost time injury rate (LTIR) as an indicator to determine the success of measures aimed at accident prevention as well as occupational health and safety. This internationally recognized key performance indicator describes the number of workplace accidents resulting in lost time of more than one day per one million working hours. Merck KGaA, Darmstadt, Germany, set itself the goal of reducing the LTIR to 2.5 by 2015. In 2014, we again outperformed this goal, achieving an LTIR of 1.8. This continuous rate of improvement can be particularly attributed to the "BeSafe!" program, which was launched in 2010. "BeSafe!" is a global initiative with harmonized standards and local modules for the specific requirements at individual sites. This program focuses on engaging managers in the safety culture and empowering our employees to take responsibility for their own safety. In 2014, we continued to sensitize our employees to workplace hazards through numerous activities and awareness campaigns.

Since 2010, the Group has been presenting the Safety Excellence Award annually in order to underscore the importance of safety. It is granted to all production sites with no workplace accidents on record for the year. In 2014, 42 out of production 69 sites were recognized. The company also issued a Group Health Policy in 2014. The aim is to maintain and systematically strengthen the health and performance capability of employees.

Despite our efforts to prevent accidents, there were two workplace accidents resulting in fatalities in 2014. In Venezuela, an employee died in a car accident. In Pakistan, an employee was killed while performing maintenance work on a scissor lift.

Vocational and advanced training

The Group continues to place a great deal of importance on the vocational and advanced training of its employees. In 2014, we therefore also maintained a constant vocational training rate at Darmstadt, the company's largest site. In 2014, 498 young people were enrolled in vocational training programs at this site, in a total of 24 different occupations. Since 2014, Merck KGaA, Darmstadt, Germany, has been giving unlimited employment contracts to all apprentices working in occupations for which the company has sustainable demand. The hiring rate – taking into account voluntary terminations – has been around 90% for several years now. We also continue to offer vocational training to a large number of young people at other sites.

As part of the "MobiPro-EU" program of the Federal German Ministry of Labour and Social Affairs, for the first time five young people from Spain started an apprenticeship at the company in Darmstadt in 2014. "Start in die Ausbildung", a German program to prepare young people for an apprenticeship, was continued with 20 interns, the same number as in 2013.

Our global advanced training program ensures that our employees and managers around the world develop the relevant skills that we need in order to implement our company strategy and to continue to succeed in the future. In 2014, we launched special management programs in China and the Middle East, among other things. So far, a total of 160 managers have participated. An example is the "Emerging Markets Management" program for young, local managers, which focuses on business management topics, tailored to suit the Group.

Work-life balance

Merck KGaA, Darmstadt, Germany, wishes to help its employees achieve a good balance between their professional and personal objectives. This maintains and strengthens their motivation and performance potential, enabling them to better schedule their lives to suit their own needs.

In Germany and the United States, the company offers various flexible working hour models. In 2013, the Group implemented Mywork at Merck KGaA, Darmstadt, Germany at the Darmstadt, Gernsheim and Grafing sites for all exempt employees. The flexible working model aims to strengthen a culture of performance and trust within the company. Employees can choose their working hours and work location freely. In October 2014, this was also extended to non-exempt employees whose positions are suitable for the working model. At the end of 2014, a total of around 3,500 employees benefited from Mywork at Merck KGaA, Darmstadt, Germany.

Globally, 5% of our employees worked part-time in 2014. 11% of our part-time employees are men. In addition, the company offers its employees throughout Germany comprehensive advice and assistance with regard to finding childcare and nursing care, as well as home and garden services. At various sites, employees benefit from childcare options that Merck KGaA, Darmstadt, Germany, subsidizes. A daycare center with capacity for 150 children has been operating at the Darmstadt site for more than 40 years, financially supported by the Merck family.

REPORT ON ECONOMIC POSITION
MACROECONOMIC AND SECTOR-SPECIFIC ENVIRONMENT

The year 2014 was characterized by the repercussions of the financial crisis and uncertainties regarding future economic and political developments. According to the most recent report published by the International Monetary Fund (IMF), global gross domestic product (GDP) grew by 3.3% in 2014, which was 0.4 percentage points more than in 2013. While the industrialized countries generated an increase of 1.8%, emerging markets continued to make the largest contribution to global growth, with GDP in emerging economies rising by 4.4%.

The GDP of the United States, the world's largest economy, grew by 2.2% in 2014, which was 0.4 percentage points slower than the 2013 forecast. Growth in the United States was stalled by a decline in exports and a harsh winter. For the eurozone, the IMF noted an increase of 0.8% in GDP. While particularly the countries of southern Europe continued to struggle with the consequences of the sovereign debt crisis, some nations, for example Germany, showed signs of recovery.

The company's performance was influenced by general global trends as well as the continued growing importance of emerging markets. In 2014, the Emerging Markets region accounted for around 80% of The Group's organic sales growth. While the Life Science division generated around 50% of its sales growth in the Emerging Markets region, the sales growth of both Performance Materials (approx. 80%) and Consumer Health (approx. 70%) was particularly strong in this region. The Biopharmaceuticals division generated its sales growth nearly entirely in the Emerging Markets region, thus compensating for a slight sales decline in Europe.

Healthcare market

IMS Health, a market research firm specialized in the health sector, reported 8.1% sales growth for the pharmaceutical market in 2014. This sales increase approximately corresponded to the 2013 forecast. The increase was primarily attributable to emerging markets. For instance, the pharmaceutical market of China posted growth of 11.6% and in Latin America, the pharmaceutical market grew by as much as 15.1%. However, after having seen slightly declining growth rates in 2013, the United States and Europe also reported growth of 11.7% and 2.5% respectively. According to the market research institute Evaluate Pharma, particularly the markets for multiple sclerosis therapies and type 2 diabetes treatments delivered above-average growth rates of 13% and 14% respectively. Whereas the market for oncology therapies to treat colorectal cancer saw a 2% decline in sales, sales of Erbitux®, one of the Biopharmaceuticals division's top-selling products, increased organically by around 6% in this indication.

Nicholas Hall, a market research firm for the pharmaceutical industry, reported a 4.0% increase for the global over-the-counter drug market in 2014, which fell 1 percentage point short of the forecast made in 2013. Latin America and Asia were growth drivers here, while Europe posted growth of 2.4%.

Market for high-tech materials

With its liquid crystals business, the Group is the leading producer of liquid crystal mixtures for the display industry. According to market researchers from Display Search, the display industry registered a sharper sales increase of 10% in 2014 following slightly lower sales growth of 5% in 2013, based on the surface areas of liquid crystal displays sold. Liquid crystals remain the leading display technology, with growth primarily coming from the increasing size of television screens.

The markets for automotive coatings and cosmetics are crucial to the company's Pigments business. As reported by the German Automobile Industry Association (VDA), global automobile sales increased by 2% in 2014. Declines in other markets were offset by growth in China (+10%), as well as the United States and western Europe (+4% each). Nevertheless, global automobile sales growth in 2014 fell by 3 percentage points compared with 2013 (+5%). According to Euromonitor International, global consumption of materials used to produce cosmetics grew by 1.9%, with Asia reporting the highest growth rate of 4.9%.

The semiconductor industry is one of the main sales markets for AZ Electronic Materials, another key business for the Performance Materials division. According to Gartner, a market research institute specializing in technology and electronics markets, the semiconductor industry grew by 7.2% in 2014 compared with 5.0% in 2013.

Life science market

The Life Science division is a leading supplier of products and services for general laboratory applications, as well as for the research, development and production of drug therapies of biological and chemical origin.

For the global laboratory product market relevant to the Lab Solutions business, the market research firm Frost & Sullivan calculated slight growth of 2.6% for 2014. Growth was thus 0.8 percentage points higher than the original forecast for the year 2014 (+1.8%). In terms of growth, the individual regions varied considerably. In comparison with 2013, the market situation in Europe (+1.6%) and the United States (+2.5%) improved, especially due to positive market developments in Germany, the United Kingdom and Spain, as well as an initial slight improvement in the U.S. academic and government sectors. Emerging economies grew much more strongly than industrialized countries; however their 11.9% share of the global market volume remains relatively low. The main drivers of growth in emerging economies were India (+8.7%) and China (+8.5%).

The demand for Process Solutions products depends heavily on the sales as well as research & development activities of pharmaceutical companies. Both primary influencing factors had a positive impact on the Process Solutions market, leading to noticeable growth. Global pharmaceutical sales increased by 8.1% according to IMS Health. Moreover, research & development spending increased by 3.2% compared with the previous year, according to the market research firm Evaluate Pharma, and the number of Phase I to III clinical trials continues to increase, leading to higher demand for Process Solutions products. This is mostly being driven by greater demand for monoclonal antibodies as well as increased biosimilars development and biological manufacturing, particularly in emerging markets.

REVIEW OF FORECAST AGAINST ACTUAL BUSINESS DEVELOPMENTS

In the Annual Report for 2013, Merck KGaA, Darmstadt, Germany, forecast slight organic sales growth for the Group in 2014, mainly driven by the Life Science and Consumer Health divisions. For EBITDA pre one-time items in 2014, a value at the 2013 level was expected. This assumed that significantly reduced royalty and license income, higher investments in research and development activities in the Biosimilars business unit and expected negative foreign exchange effects could be compensated for by the positive effect resulting from the implemented efficiency measures. Business free cash flow was forecast to decrease slightly owing to further imminent investments in strategic growth projects.

In event of the successful acquisition and consolidation of AZ Electronic Materials as of the second quarter of 2014, Merck KGaA, Darmstadt, Germany, had forecast a moderate increase in Group sales and EBITDA pre one-time items as well as a slight improvement in business free cash flow for 2014, compared with 2013.

Since the Group was able to successfully complete the acquisition of AZ Electronic Materials and the first-time consolidation of the business as of May 2, 2014, the forecast assuming the acquisition of AZ Electronic Materials is used for the following comparison.

Regarding the forecast of slight organic sales growth in the Annual Report for 2013, the company showed moderate organic sales growth of 4.0% in 2014. This was mainly attributable to the organic sales developments of the Biopharmaceuticals division and Performance Materials, which exceeded expectations. The Group's organic sales growth was reduced by negative foreign exchange effects amounting to –1.8%. However, owing to the appreciation of the U.S. dollar and important Asian currencies in the fourth quarter, negative foreign exchange effects were not as pronounced as expected. Due to the acquisition of AZ Electronic Materials and the associated positive acquisition effect of 3.3%, the Group achieved overall sales growth of 5.5% in the actual course of business and thereby fulfilled its forecast of a moderate increase in sales.

Thanks to stable sales of the drug Rebif® and organic growth in all other key franchises, the Biopharmaceuticals division achieved organic growth of 3.6%. Assuming that sales of Rebif® would decline, the division still expected stable organic sales at the beginning of 2014. The Performance Materials division achieved organic sales growth of 4.1% due to slightly higher sales than expected in the Liquid Crystals business unit, as well as the good performance of the Advanced Technologies business unit. Only slight organic growth had been forecast. As a result of the positive acquisition effect arising from the acquisition of AZ Electronic Materials, the Performance Materials division was able to significantly increase sales overall as forecast. The Consumer Health and the Life Science divisions achieved organic sales growth of 5.4% and 4.5% respectively in accordance with the corresponding forecasts.

As forecast, EBITDA pre one-time items of the Group, which amounted to € 3,388 million in 2014, increased moderately in comparison with 2013, particularly as a result of the acquisition of AZ Electronic Materials. EBITDA pre one-time items of the Biopharmaceuticals division declined slightly by –1.3% as expected. This was mainly attributable to lower royalty and license income from Humira®, as well as the loss of royalty and license income from Avonex® and Enbrel®. The Consumer Health division did not achieve the forecast of a moderate increase in EBITDA pre one-time items due to higher marketing and selling expenses, showing a slight decline of 1.7% to € 169 million. In line with the forecast, the Performance Materials division posted a significant increase in EBITDA pre one-time items to € 895 million, due to the integration of the AZ Electronic Materials business. Likewise as forecast, the Life Science division posted a slight increase in EBITDA pre one-time items to € 659 million thanks to moderate organic sales growth. EBITDA pre one-time items of Corporate and Other showed an improvement of 15.5% to € –166 million particularly as a consequence of slightly higher gains from currency hedging, thereby achieving a more positive result than expected.

Declining by –12.0% compared with 2013, the development of the Group's business free cash flow to € 2,605 million fell short of forecasts. As expected, the decrease at the Biopharmaceuticals division was caused by the initiation of further investments in growth projects, as well as lower EBITDA pre one-time items. In the other divisions, the increase in inventories and trade accounts receivable was primarily responsible for the deviation.

Review of forecast against actual business developments in 2014

	Actual results 2013 € million	Forecast 2014 in Annual Report 2013	Guidance for 2014 provided in Q1/2014 Interim Report	Q2/2014 Interim Report	Q3/2014 Interim Report	Actual results 2014 € million
Group						
Sales	10,700	moderate increase, slight organic growth	€ 10.9 – 11.1 billion	€ 10.9 – 11.1 billion	€ 11.0 – 11.2 billion	11,291 (+ 5.5 / + 4.0 % org. / + 3.3 % acquisition)
EBITDA pre one-time items	3,253	moderate increase	€ 3.3 – 3.4 billion	€ 3.3 – 3.4 billion	€ 3.3 – 3.4 billion	3,388 (+ 4.1 %)
Business free cash flow	2,960	slight increase	€ 2.7 – 2.8 billion	€ 2.7 – 2.8 billion	€ 2.7 – 2.8 billion	2,605 (– 12.0 %)
Earnings per share pre one-time items[1]	€ 4.39	–	€ 4.50 – 4.75	€ 4.50 – 4.75	€ 4.50 – 4.75	€ 4.60 (+ 4.8 %)
Biopharmaceuticals						
Sales[2]	5,688	organic stable on a comparable basis	organic stable	slight organic growth	slight organic growth	5,783 (+ 1.7 % / + 3.6 % org.)
EBITDA pre one-time items[2]	1,855	slight decline on a comparable basis	€ 1.75 – 1.85 billion	€ 1.75 – 1.83 billion	€ 1.77 – 1.83 billion	1,831 (– 1.3 %)
Business free cash flow[2]	1,787	moderate decline on a comparable basis	€ 1.5 – 1.6 billion	€ 1.5 – 1.6 billion	€ 1.5 – 1.6 billion	1,577 (– 11.7 %)
Consumer Health						
Sales[2]	742	moderate increase on a comparable basis	moderate organic growth	moderate organic growth	moderate organic growth	766 (+ 3.2 % / + 5.4 % org.)
EBITDA pre one-time items[2]	172	moderate increase on a comparable basis	€ 170 – 180 million	€ 170 – 180 million	€ 170 – 180 million	169 (– 1.7 %)
Business free cash flow[2]	172	slight increase on a comparable basis	€ 150 – 170 million	€ 150 – 170 million	€ 150 – 160 million	124 (– 28.1 %)
Performance Materials						
Sales	1,642	significant increase	slight organic growth	slight organic growth	slight organic growth	2,060 (+ 25.4 % / + 4.1 % org. / + 22.8 % acquisition)
EBITDA pre one-time items	780	significant increase	€ 830 – 880 million	€ 850 – 880 million	€ 860 – 880 million	895 (+ 14.8 %)
Business free cash flow	788	significant increase	€ 720 – 770 million	€ 720 – 770 million	€ 720 – 770 million	700 (– 11.2 %)
Life Science						
Sales	2,628	slight increase	moderate organic growth	moderate organic growth	moderate organic growth	2,682 (+ 2.1 % / + 4.5 % org.)
EBITDA pre one-time items	643	slight increase	€ 640 – 670 million	€ 640 – 670 million	€ 640 – 670 million	659 (+ 2.5 %)
Business free cash flow	494	stable	€ 460 – 490 million	€ 460 – 490 million	€ 460 – 490 million	419 (– 15.2 %)
Corporate and Other						
EBITDA pre one-time items	– 197	stable	€ – 170 – – 200 million	€ – 160 – – 190 million	€ – 160 – – 190 million	– 166 (– 15.5 %)
Business free cash flow	– 281	–	~ € – 240 million	€ – 200 – – 230 million	€ – 200 – – 220 million	– 215 (– 23.7 %)

[1] Based on the number of shares following the share split, which was approved by the Annual General Meeting on May 9, 2014.
[2] Previous year's figures have been adjusted, see "The Group" in the Group management report.

COURSE OF BUSINESS AND ECONOMIC POSITION
GROUP

OVERVIEW OF 2014

- → Sales increase by 5.5% to € 11.3 billion – organic growth of 4.0%, acquisition-related increases of 3.3% as well as slight negative foreign exchange effects of –1.8%
- → Emerging Markets contribute significantly to organic sales growth
- → EBITDA pre one-time items increase by 4.1% to around € 3.4 billion – main drivers were the Performance Materials division due to the first-time consolidation of AZ Electronic Materials (AZ) as well as the successful operating business of Liquid Crystals
- → Improvement in earnings per share before one-time items by 4.8% to € 4.60
- → Business free cash flow remains at a high level
- → Net financial debt as of December 31, 2014 only increased slightly to € 0.6 billion, despite payment of the AZ purchase price of € 1.9 billion
- → Only a slight adjustment to the long-term credit ratings to "A" with negative outlook (Standard & Poor's) and "Baa1" with negative outlook (Moody's), despite the announcement of the acquisition of the Sigma-Aldrich Corporation (Sigma-Aldrich) for around US$ 17 billion

GROUP →
KEY FIGURES

€ million	2014	2013	Change in %
Total revenues	11,500.8	11,095.1	3.7
Sales	11,291.5	10,700.1	5.5
Operating result (EBIT)	1,762.0	1,610.8	9.4
Margin (% of sales)	15.6	15.1	
EBITDA	3,122.9	3,069.2	1.7
Margin (% of sales)	27.7	28.7	
EBITDA pre one-time items	3,387.7	3,253.3	4.1
Margin (% of sales)	30.0	30.4	
Earnings per share pre one-time items (€)[1]	4.60	4.39	4.8
Business free cash flow	2,605.1	2,960.0	–12.0

[1] Taking into account the share split; previous year's figures have been adjusted accordingly. See "Earnings per share" in the Notes to the Group accounts.

Development of sales and results of operations

In 2014, the Group generated sales of € 11,291 million (2013: € 10,700 million). This represented an increase in sales of 5.5% or € 591 million compared with 2013. Organic growth of 4.0% was responsible for the vast majority of this improvement. Acquisitions/divestments (net) increased sales overall by 3.3% or € 355 million. The first-time consolidation of AZ in the Performance Materials division as of May 2, 2014 made a positive contribution of € 375 million to Group sales in 2014. Owing to the divestment of the Life Science division's Discovery and Development Solutions business field, which became effective on March 31, 2014, sales declined in comparison with 2013 by € – 20 million (see "Acquisitions and divestments as well as assets held for sale and disposal groups" in the Notes to the Group accounts). Negative foreign exchange effects lowered sales by –1.8%.

The development of sales in the individual quarters in comparison with 2013 as well as the respective organic growth rates are presented in the following overview:

GROUP →

SALES AND ORGANIC GROWTH BY QUARTER[1]

€ million / organic growth in %

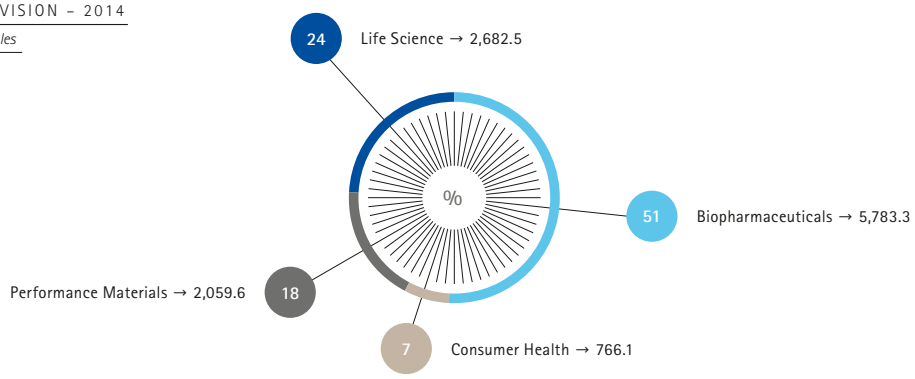
[1] Quarterly breakdown unaudited.

In 2014, the Biopharmaceuticals division generated 51 % of Group sales (2013: 53 %), remaining the largest division by sales. The Life Science and Performance Materials division's followed, contributing 24 % (2013: 25 %) and 18 % (2013: 15 %) to Group sales, respectively. The three percentage point increase in the contribution of Performance Materials to Group sales is largely due to the acquisition of AZ. As in 2013, the Consumer Health division accounted for 7 % of Group sales.

GROUP →

SALES BY DIVISION – 2014

€ million / % of sales

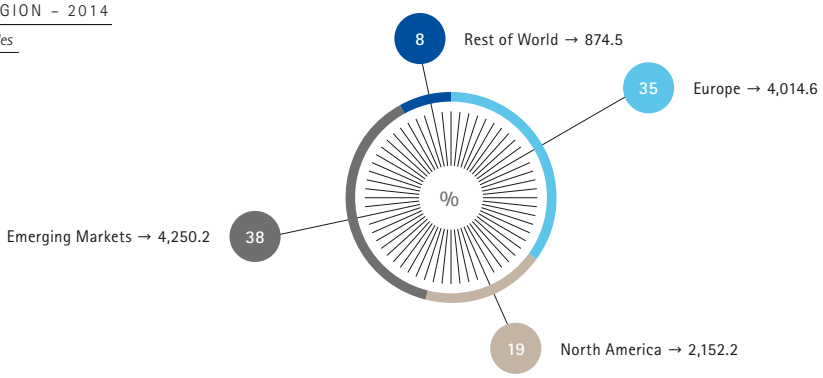


GROUP →
SALES COMPONENTS BY DIVISION – 2014

€ million / change in %	Sales	Organic growth	Exchange rate effects	Acquisitions / divestments	Total change
Biopharmaceuticals	5,783.3	3.6	–1.9	–	1.7
Consumer Health	766.1	5.4	–2.2	–	3.2
Performance Materials	2,059.6	4.1	–1.5	22.8	25.4
Life Science	2,682.5	4.5	–1.7	–0.7	2.1
Group	**11,291.5**	**4.0**	**–1.8**	**3.3**	**5.5**

In 2014, all four divisions of the Group posted organic sales increases with growth rates of between 3.6% and 5.4% as well as negative foreign exchange effects of around –2% in each division. Achieving an organic sales growth rate of 3.6%, which corresponded to an absolute increase of € 207 million, the Biopharmaceuticals division made the strongest absolute contribution to organic sales growth, followed by the Life Science division with organic sales growth of € 119 million equivalent to a growth rate of 4.5% and Performance Materials with € 67 million, or 4.1%. At 5.4%, Consumer Health generated the highest organic growth rate of all the operating divisions, equivalent to an absolute sales increase of € 40 million. Owing to the first-time consolidation of AZ, the Performance Materials division posted the highest overall sales increase of 25.4%, representing an absolute increase of € 418 million.

GROUP →
SALES BY REGION – 2014
€ million / % of sales



Dynamic business in the Emerging Markets region, which encompasses Latin America and Asia excluding Japan, fueled global organic sales growth, accounting for around 80% of the total increase in organic sales of the Group. The growth rate in the Emerging Markets region was 9.1%, corresponding to an absolute organic sales increase of € 347 million. In particular, the Biopharmaceuticals division was the main driver of this development. Taking into consideration acquisition-related increases as well as negative foreign exchange effects, the Group increased its sales in the Emerging Markets region by a total of 12.0% to € 4,250 million (2013: € 3,796 million). In 2014, the region thus increased its contribution to Group sales by two percentage points to 38%.

Sales in Europe only increased slightly by 0.8% to € 4,015 million (2013: € 3,985 million). This increase was mainly attributable to the acquisition of AZ. Europe's contribution to Group sales thus fell to 35% (2013: 37%).

Sales in North America amounted to € 2,152 million (2013: € 2,078 million) and thus increased by 3.6% or € 74 million in comparison with the previous year. With a slight organic sales increase of 1.7% and coupled with negative exchange rate effects of 1.8%, North America's contribution to Group sales was 19%, as in 2013.

The Rest of World region, i.e. Japan, Africa and Australia/Oceania, generated € 875 million (2013: € 842 million) or 8% of Group sales, as in the previous year. Organic and acquisition-related growth was dampened by negative foreign exchange effects (– 6.9%), which were mainly attributable to the Japanese yen. Overall, sales increased by 3.9% in this region in 2014.

GROUP →

SALES COMPONENTS BY REGION – 2014

€ million / change in %	Sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	4,014.6	0.2	– 0.1	0.7	0.8
North America	2,152.2	1.7	0.1	1.8	3.6
Emerging Markets	4,250.2	9.1	– 3.5	6.4	12.0
Rest of World	874.5	5.0	– 6.9	5.8	3.9
Group	**11,291.5**	**4.0**	**– 1.8**	**3.3**	**5.5**

The consolidated income statement of the Group is as follows:

GROUP →
CONSOLIDATED INCOME STATEMENT

	2014		2013		Change	
	€ million	in %	€ million	in %	€ million	in %
Sales	**11,291.5**	**100.0**	**10,700.1**	**100.0**	**591.4**	**5.5**
Royalty, license and commission income	209.3	1.9	395.0	3.7	–185.7	– 47.0
Total revenues	**11,500.8**	**101.9**	**11,095.1**	**103.7**	**405.7**	**3.7**
Cost of sales[1]	– 3,526.4	– 31.2	– 3,041.7	– 28.4	– 484.7	15.9
(of which: amortization of intangible assets)[1]	*(– 94.0)*		*(– 49.2)*		*(– 44.8)*	*(91.2)*
Gross profit[1]	**7,974.4**	**70.6**	**8,053.4**	**75.3**	**– 79.0**	**– 1.0**
Marketing and selling expenses[1]	– 3,104.9	– 27.5	– 3,088.5	– 28.9	– 16.4	0.5
(of which: amortization of intangible assets)[1]	*(– 719.0)*		*(– 762.0)*		*(43.0)*	*(– 5.7)*
Royalty, license and commission expenses	– 537.5	– 4.8	– 567.0	– 5.3	29.5	– 5.2
Administration expenses	– 608.6	– 5.4	– 562.4	– 5.3	– 46.2	8.2
Research and development costs[1]	–1,703.7	– 15.1	–1,506.6	– 14.1	– 197.1	13.1
(of which: amortization of intangible assets)[1]	*(– 3.8)*		*(– 2.3)*		*(– 1.5)*	*(64.6)*
Other operating expenses and income	– 257.7	– 2.3	– 718.1	– 6.7	460.4	– 64.1
Operating result (EBIT)	**1,762.0**	**15.6**	**1,610.8**	**15.1**	**151.2**	**9.4**
Financial result	– 205.0	– 1.8	– 222.2	– 2.1	17.2	– 7.7
Profit before income tax	**1,557.0**	**13.8**	**1,388.6**	**13.0**	**168.4**	**12.1**
Income tax	– 392.2	– 3.5	– 179.5	– 1.7	– 212.7	118.4
Profit after tax	**1,164.8**	**10.3**	**1,209.1**	**11.3**	**– 44.3**	**– 3.7**
Attributable to non-controlling interests	– 7.5	– 0.1	– 6.9	– 0.1	– 0.6	8.4
Net income	**1,157.3**	**10.2**	**1,202.2**	**11.2**	**– 44.9**	**– 3.7**

[1] The disclosure of amortization of intangible assets (excluding software) has been changed. See "Accounting and measurement principles" in the Notes to the Group accounts.

Royalty, license and commission income declined by – 47.0% to € 209 million in 2014 (2013: € 395 million). This sharp drop of € –186 million was mainly due to the decrease in royalty, and license and commission income in the Biopharmaceuticals division. Total revenues (sales plus royalty, license and commission income) rose by 3.7% to € 11,501 million (2013: € 11,095 million).

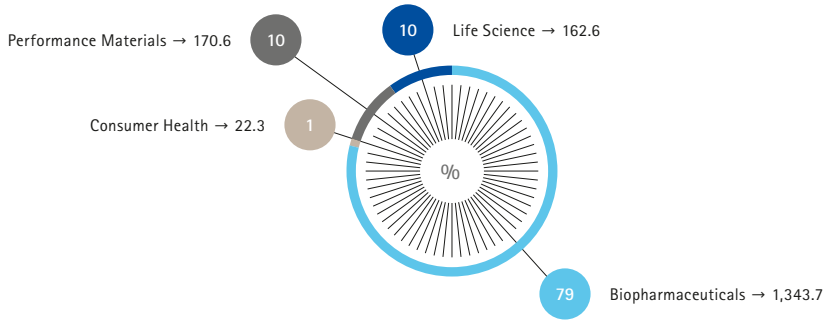
Including cost of sales, which increased by 15.9% to € 3,526 million in 2014, the Group recorded gross profit of € 7,974 million (2013: € 8,053 million). The strong increase in cost of sales was due among other things to organic sales growth in all divisions, as well as the first-time consolidation of AZ. As part of the purchase price allocation, the acquired inventories of AZ were stepped up to fair values on the date of first-time consolidation. In 2014, € 45 million of this step-up was recognized as an expense in cost of sales. In addition, cost of sales of the Performance Materials division rose due to the amortization of intangible assets in connection with the AZ purchase price allocation. Along with stronger sales growth in regions with lower margins as well as isolated production and supply bottlenecks in the Biopharmaceuticals division, gross margin, i.e. gross profit as a percentage of sales, declined to 70.6% (2013: 75.3%) in 2014. In addition to the aforementioned effects, the sharp decline in royalty, license and commission income also had a negative effect on gross margin.

The increase in research and development costs was mainly attributable to the Biopharmaceuticals division and included in particular expenses for provisions set up for unavoidable subsequent costs that are likely to be incurred in connection with the discontinuation of clinical development programs. Consequently, 79 % of Group-wide research and development spending was attributable to this division (2013: 78 %). The Group research spending ratio (research and development costs as a percentage of sales) rose accordingly to 15.1 % (2013: 14.1 %).

GROUP →

RESEARCH AND DEVELOPMENT COSTS BY DIVISION – 2014

€ million / in %



In 2014, the improvement in other operating expenses and income (net) to € –258 million (2013: € –718 million) mainly reflected the adjustment of provisions for litigation, lower expenses from one-time items and higher foreign exchange gains (see also "Other operating expenses and income" in the Notes to the Group accounts). However, other operating expenses and income were affected in 2014 by higher impairments of intangible assets in connection with the discontinuation of clinical development programs in the Biopharmaceuticals division.

Owing to the good performance of the Merck KGaA, Darmstadt, Germany, share price compared with the DAX, expenses from additions to provisions within the scope of the company's Long-Term Incentive Plan (LTIP) were higher in 2014 than in the previous year. The intrinsic value of the Share Units of Merck KGaA, Darmstadt, Germany, (MSUs) was recognized under the respective functional costs in the income statement depending on the field of activity of the eligible participants. MSUs are virtual shares in the Group that eligible executives and employees could receive at the end of a three-year performance period within the scope of the LTIP.

As a result of the development of income and expenses described above, the operating result (EBIT) of the Group increased by 9.4 % to € 1,762 million in 2014.

The improvement in the financial result by € 17 million to € –205 million was largely attributable to the positive development of the interest result (see also "Financial Result" in the Notes to the Group accounts).

Income tax expenses of € 392 million (2013: € 180 million) led to a tax ratio of 25.2 % (2013: 12.9 %). The low tax ratio of the previous year was attributable to one-time deferred tax income (see also "Income Tax" in the Notes to the Group accounts).

Net income, i.e. profit after tax attributable to Merck KGaA, Darmstadt, Germany, shareholders, in 2014 was € 1,157 million (2013: € 1,202 million). Taking the share split into account, this resulted in earnings per share of € 2.66 (2013: € 2.77).

The key financial indicator used to steer operating business, EBITDA pre one-time items, climbed 4.1 % to € 3,388 million (2013: € 3,253 million). The resulting EBITDA pre margin of 30.0 % nearly reached the year-earlier level (30.4 %). The reconciliation of the operating result (EBIT) to EBITDA pre one-time items is presented under "Internal management system of the Group".

The development of EBITDA pre one-time items in the individual quarters in comparison with 2013 is presented in the following overview:

GROUP →

EBITDA PRE ONE-TIME ITEMS AND CHANGE BY QUARTER[1]

€ million / change in %

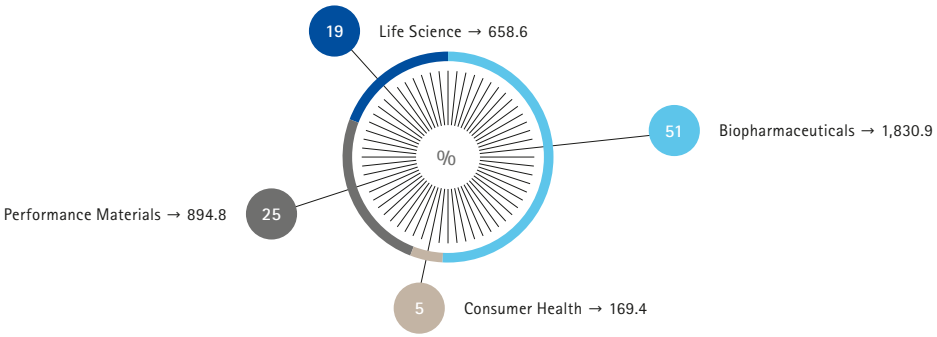
[1] Quarterly breakdown unaudited.

The increase in EBITDA pre one-time items was mainly attributable to the Performance Materials division, which achieved the strongest rise in EBITDA pre one-time items of all the operating divisions with an absolute increase of € 115 million. The division thus increased its share of Group EBITDA pre one-time items by two percentage points to 25% (2013: 23%). This excludes the € –166 decline due to Corporate and Other. With a share of 51% (2013: 54%, excluding Corporate and Other), the Biopharmaceuticals division's contribution to EBITDA pre one-time items was the highest among all the operating divisions. The percentage contributions of the Life Science division and Consumer Health remained at the previous year's level of 19% and 5% respectively.

GROUP →

EBITDA PRE ONE-TIME ITEMS BY DIVISION – 2014

€ million / in %



Not presented: Decline in Group EBITDA pre one-time items by € –166 million due to Corporate and Other.

Net assets and financial position

GROUP →
BALANCE SHEET STRUCTURE

	Dec. 31, 2014		Dec. 31, 2013		Change	
	€ million	in %	€ million	in %	€ million	in %
Current assets	**10,480.4**	**40.3**	**7,384.5**	**35.5**	**3,095.9**	**41.9**
of which:						
Cash and cash equivalents	2,878.5		980.8		1,897.7	
Current financial assets	2,199.4		2,410.5		–211.1	
Trade accounts receivable	2,235.6		2,021.4		214.2	
Inventories	1,659.7		1,474.2		185.5	
Other current assets	1,507.2		497.6		1,009.6	
Non-current assets	**15,529.7**	**59.7**	**13,434.1**	**64.5**	**2,095.6**	**15.6**
of which:						
Intangible assets	11,395.5		9,867.2		1,528.3	
Property, plant and equipment	2,990.4		2,647.2		343.2	
Other non-current assets	1,143.8		919.7		224.1	
Total assets	**26,010.1**	**100.0**	**20,818.6**	**100.0**	**5,191.5**	**24.9**
Current liabilities	**6,601.4**	**25.4**	**3,898.8**	**18.7**	**2,702.6**	**69.3**
of which:						
Current financial liabilities	2,075.9		440.4		1,635.5	
Trade accounts payable	1,539.4		1,364.1		175.3	
Current provisions	561.7		494.7		67.0	
Other current liabilities	2,424.4		1,599.6		824.8	
Non-current liabilities	**7,607.7**	**29.2**	**5,850.6**	**28.1**	**1,757.1**	**30.0**
of which:						
Non-current financial liabilities	3,561.1		3,257.5		303.6	
Non-current provisions	626.1		1,011.1		–385.0	
Provisions for pensions and other post-employment benefits	1,820.1		910.9		909.2	
Other non-current liabilities	1,600.5		671.1		929.4	
Equity	**11,801.0**	**45.4**	**11,069.2**	**53.2**	731.8	**6.6**
Total liabilities and equity	**26,010.1**	**100.0**	**20,818.6**	**100.0**	5,191.5	24.9

The total assets of the Group amounted to € 26,010 million as of December 31, 2014. This represents an increase of € 5,192 million or 24.9% over December 31, 2013 (€ 20,819 million). This sharp increase was primarily attributable to the following developments:

The issue of a hybrid bond with a volume of € 1.5 billion as well as higher other financial liabilities led in 2014 to an increase of around € 1.9 billion in liquid assets as well as financial liabilities, which relates to the financing of the planned acquisition of Sigma-Aldrich. Currency hedging transactions completed for the expected purchase price payment in U.S. dollars for the acquisition of Sigma-Aldrich in 2015 resulted in high positive market values that increased equity without affecting profit or loss as of December 31, 2014.

Within the scope of the global alliance entered into with Pfizer Inc., USA, in November 2014 on the development and commercialization of the anti-PD-L1 antibody, the Group received an upfront payment of US$ 850 million (€ 678 million). Based on the collaboration agreement, the Group will co-market Xalkori®, a drug for the treatment of non-small cell lung cancer, with Pfizer in the United States and certain other major markets over a multi-year period. Other current assets of € 294 million were capitalized for the entitlement to the right. Both the upfront payment received and the value of the right to co-market Xalkori® were recognized in the balance sheet as deferred revenues under other liabilities, leading to an increase of nearly € 1 billion in the balance sheet total as of December 31, 2014.

Owing to a weaker euro, positive foreign exchange effects resulted, which increased total assets by around € 0.9 billion as of December 31, 2014.

The first-time consolidation of AZ as of May 2, 2014 also had an effect on the consolidated balance sheet as of December 31, 2014. As part of the purchase price allocation for the AZ acquisition, the acquired assets and liabilities were measured at fair values in the balance sheet. On the date of first-time consolidation, this led to an increase in intangible assets (excluding goodwill) by € 1,051 million. The goodwill from the transaction amounted to € 818 million. The payment of the purchase price totaling € 1,875 million was made fully in cash. Further information on the purchase price allocation for the AZ acquisition can be found under "Acquisitions and divestments as well as assets held for sale and disposal groups" in the Notes to the Group accounts.

Equity increased by € 732 million to € 11,801 million (2013: € 11,069 million). This increase was mainly driven by total comprehensive income generated in 2014 (see the Consolidated Statement of Comprehensive Income in the consolidated financial statements). This was countered by dividend payments, the result transfer to E. Merck KG, Darmstadt, Germany, as well as the acquisition of the non-controlling interests in AZ Electronic Materials S.A. (see Consolidated Statement of Changes in Net Equity in the consolidated financial statements). Owing to the sharp increase in the balance sheet total, the equity ratio declined to 45.4% as of December 31, 2014 (2013: 53.2%).

The doubling of pension provisions to € 1.8 billion resulted mainly from the lowering of the discount rates used to calculate the present value of the defined benefit obligations of old-age pension plans. The resulting actuarial losses were recognized in the Consolidated Statement of Comprehensive Income and, taking into account deferred taxes, lowered the equity of the Group.

GROUP →

NET FINANCIAL DEBT

	Maturity	Interest rate (%)	Financial Covenant	Book value Dec. 31, 2014 € million	Book value Dec. 31, 2013 € million	Change € million	Change in %
Eurobond 2010/2015 (Nominal volume € 1,350 million)	March 2015	3.375	No	1,349.7	1,348.2	1.5	0.1
Eurobond 2009/2015 (Nominal volume € 100 million)	Dec. 2015	3.615[1]	No	100.0	100.0	–	–
Eurobond 2006/2016 (Nominal volume € 250 million)	June 2016	5.875	No	218.4	222.4	– 4.0	– 1.8
Eurobond 2009/2016 (Nominal volume € 60 million)	Nov. 2016	4.000	No	60.0	60.0	–	–
Eurobond 2009/2019 (Nominal volume € 70 million)	Dec. 2019	4.250	No	69.1	69.0	0.1	0.1
Eurobond 2010/2020 (Nominal volume € 1,350 million)	March 2020	4.500	No	1,344.1	1,343.1	1.0	0.1
Hybrid bond KGaA 2014/2074 (Nominal volume € 1,000 million)	Dec. 2074[2]	2.625[2]	No	986.2	–	986.2	–
Hybrid bond KGaA 2014/2074 (Nominal volume € 500 million)	Dec. 2074[3]	3.375[3]	No	496.7	–	496.7	–
Total bonds				**4,624.2**	**3,142.7**	**1,481.5**	**47.1**
Other financial liabilities			No	1,012.8	555.2	457.6	82.4
Total financial liabilities				**5,637.0**	**3,697.9**	**1,939.1**	**52.4**
less:							
Cash and cash equivalents				2,878.5	980.8	1,897.7	193.5
Current financial assets				2,199.4	2,410.5	– 211.1	– 8.8
Net financial debt				**559.1**	**306.6**	**252.5**	**82.3**

[1] Fixed by interest rate swaps.
[2] Merck KGaA, Darmstadt, Germany, has the right of first-time premature repayment in June 2021 for this tranche of the hybrid bond issued in December 2014; the nominal interest rate stated above has been fixed until this date.
[3] Merck KGaA, Darmstadt, Germany, has the right of first-time premature repayment in December 2024 for this tranche of the hybrid bond issued in December 2014; the nominal interest rate stated above has been fixed until this date.

The increase in financial liabilities as well as liquid assets is related to the financing of the planned acquisition of Sigma-Aldrich. Net financial debt rose by only € 252 million to € 559 million (2013: € 307 million), even though the payment of the purchase price for AZ amounting to around € 1.9 billion was financed in 2014. This illustrates yet again the high internal financing power of the Group. Expected future cash flows such as repayments and interest from financial liabilities are presented under "Management of financial risks" in the Notes to the Group accounts.

GROUP →
WORKING CAPITAL

€ million	Dec. 31, 2014	Dec. 31, 2013	Change € million	Change in %
Trade accounts receivable	2,235.6	2,021.4	214.2	10.6
Inventories	1,659.7	1,474.2	185.5	12.6
Trade accounts payable	–1,539.4	–1,364.1	–175.3	12.9
Working capital	**2,355.9**	**2,131.5**	**224.4**	**10.5**
% of sales	20.9%	19.9%		

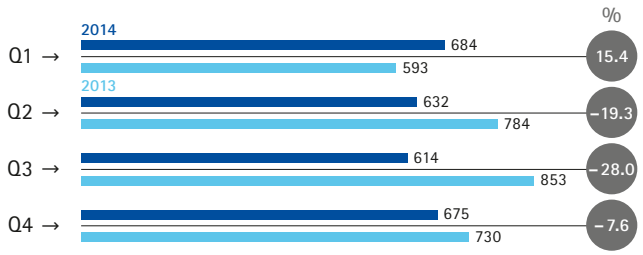
Working capital increased in 2014 by € 224 million. Approximately two-thirds of this increase were due to the first-time consolidation of AZ. Consequently, working capital increased to 20.9% of sales (2013: 19.9%).

Business free cash flow of the Group was € 2,605 million in 2014 (2013: € 2,960 million), which did not meet the high previous year's level. The composition of this financial indicator is presented in the Group management report under "Internal Management System of the Group".

The distribution of business free cash flow across the individual quarters as well as the percentage changes in comparison with 2013 were as follows:

GROUP →
BUSINESS FREE CASH FLOW AND CHANGE BY QUARTER[1]

€ million / change in %

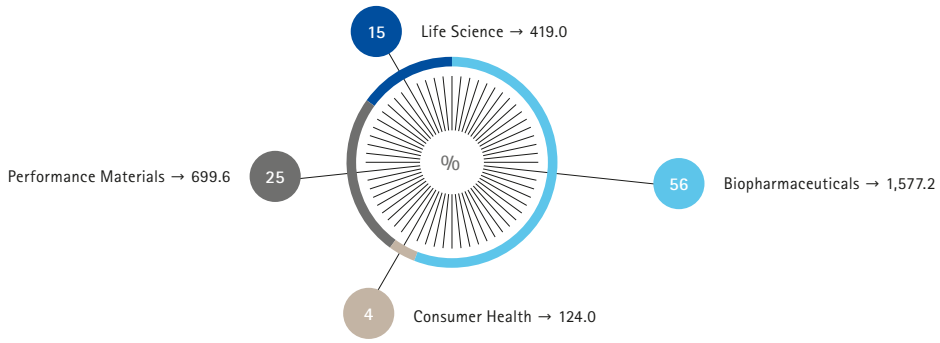


[1] Quarterly breakdown unaudited.

GROUP →

BUSINESS FREE CASH FLOW BY DIVISION – 2014

€ million / in %



Not presented: Decline in Group business free cash flow by € –215 million due to Corporate and Other.

In 2014, all four operating divisions generated lower business free cash flow than in 2013. The Biopharmaceuticals division generated business free cash flow amounting to € 1,577 million (2013: € 1,787 million), thus raising its contribution to Group business free cash flow to 56% (2013: 55%). This excludes the decline of € –215 million due to Corporate and Other. Performance Materials contributed € 700 million (2013: € 788 million) to this Group financial indicator, equivalent to 25% (2013: 24%). Taken together, the Life Science and Consumer Health divisions contributed 19% (2013: 21%) to Group business free cash flow.

The investments in property, plant, equipment and software included in the calculation of business free cash flow as well as advance payments for intangible assets increased in 2014 by 18.2% to a total of € 528 million (2013: € 446 million). The investments in property, plant and equipment included therein amounted to € 485 million in 2014 (2013: € 408 million), of which € 220 million was attributable to strategic investment projects each with a project volume of more than € 2 million; the remainder was attributable to smaller capital spending projects.

In 2014, significant investments were approved for the expansion of the Darmstadt site. Some of these investments will serve to upgrade global headquarters. This includes the construction of an Innovation Center, a Visitors Center and an employee restaurant. A new laboratory building involving a total investment of € 65 million will bundle the pharmaceutical research activities of the Biopharmaceuticals division as of 2017. Moreover, OLED production capacity in the Performance Materials division will be expanded by an investment of € 31 million in order to meet growing market demand.

Production facilities at two further locations of the Biopharmaceuticals division are being significantly expanded. At the Aubonne site in Switzerland, € 27 million is being invested in a new packaging unit and at the Bari site in Italy, € 49 million is being invested in the expansion of the existing filling unit.

In 2014, the two rating agencies Moody's and Standard & Poor's adjusted the Group's long-term credit ratings owing to the expected higher level of debt in the course of the acquisition of Sigma-Aldrich. While Standard & Poor's has now issued a rating of "A" with negative outlook, (previously: "A" with stable outlook), Moody's changed its rating from "A3" with stable outlook to "Baa1" with negative outlook. An overview of the development of the company's rating for the period from 2009 to 2014 is presented in the Report on Risks and Opportunities.

In October 2014, the Group renewed its Debt Issuance Program with a volume of € 15 billion. The Debt Issuance Program forms the contractual basis for issuing bonds, thus giving the company flexibility in its issuing activities. It represents an important element of the Group's financing activities.

The development of key balance sheet figures is as follows:

GROUP →
KEY BALANCE SHEET FIGURES

in %		Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010
Equity ratio	Equity / Total assets	45.4	53.2	48.1	47.4	46.3
Asset ratio	Non-current assets / Total assets	59.7	64.5	69.4	71.1	74.7
Asset coverage	Equity / Non-current assets	76.0	82.4	69.4	66.7	62.0
Finance structure	Current liabilities / Liabilities (total)	46.5	40.0	40.6	37.5	28.0

Overall assessment of business performance and economic situation

The Group can look back on a very successful 2014. The good development of the operating businesses made it possible to seamlessly build on the excellent results of 2013. Major progress was made with the implementation of the "Fit for 2018" transformation and growth program. With the acquisition of AZ and the formation of strategic partnerships, the Group succeeded in securing future growth and profitability. In particular, the planned acquisition of Sigma-Aldrich represents a milestone for the Group's Life Science business.

Group sales increased by 5.5% to € 11.3 billion in 2014. The acquisition of AZ, which was completed at the beginning of May 2014, increased sales by 3.3%. Sales rose not only as a result of acquisitions, but also organically by 4.0%. Whereas in the past years exchange rate developments of key currencies negatively affected sales, only a slight negative effect of –1.8% resulted in 2014.

The development of EBITDA pre one-time items, which increased in 2014 to € 3,388 million (2013: € 3,253 million), also shows the sustainable profitability strength of the Group. Business free cash flow amounted to € 2,605 million in 2014 (2013: € 2,960 million), falling short of the previous year's excellent figure.

The solid accounting and finance policy of the Group is reflected by the very good key balance sheet figures. The equity ratio as of December 31, 2014 was 45.4%, thus remaining at a very good level. Net financial debt only rose from € 307 million to € 559 million, despite the financing of the purchase price payment of € 1.9 billion for the acquisition of AZ. This shows that thanks to its high financing power, the company is well-prepared for the announced acquisition of Sigma-Aldrich. Against the backdrop of the superb liquidity position and financing base as well as the excellent business development, the economic position of the Group can be assessed positively overall. It represents an ideal starting basis for future organic and inorganic growth.

BIOPHARMACEUTICALS

BIOPHARMACEUTICALS →
KEY FIGURES

€ million	2014	2013[1]	Change in %
Total revenues	5,975.0	6,060.4	–1.4
Sales	5,783.3	5,688.4	1.7
Operating result (EBIT)	956.5	793.1	20.6
Margin (% of sales)	16.5	13.9	
EBITDA	1,786.0	1,786.6	–
Margin (% of sales)	30.9	31.4	
EBITDA pre one-time items	1,830.9	1,855.1	–1.3
Margin (% of sales)	31.7	32.6	
Business free cash flow	1,577.2	1,787.1	–11.7

[1] Previous year's figures have been adjusted, see "The Group" in the Group management report.

Development of sales and results of operations

In 2014, the Biopharmaceuticals division generated organic sales growth of 3.6%. Taking negative foreign exchange effects of –1.9% into account, divisional sales rose overall by 1.7% to € 5,783 million (2013: € 5,688 million). All the division's franchises contributed to the organic sales growth, with the highest absolute sales increase coming from the Fertility franchise. The Oncology franchise also achieved good organic sales growth with the biopharmaceutical Erbitux®. Used in the treatment of relapsing forms of multiple sclerosis, Rebif® performed well despite increasing competitive pressure. From a geographic perspective, as in previous years, the Emerging Markets region was the division's main growth driver, particularly in the General Medicine franchise (including CardioMetabolic Care).

The development of sales in the individual quarters in comparison with 2013 as well as the respective organic growth rates are presented in the following overview:

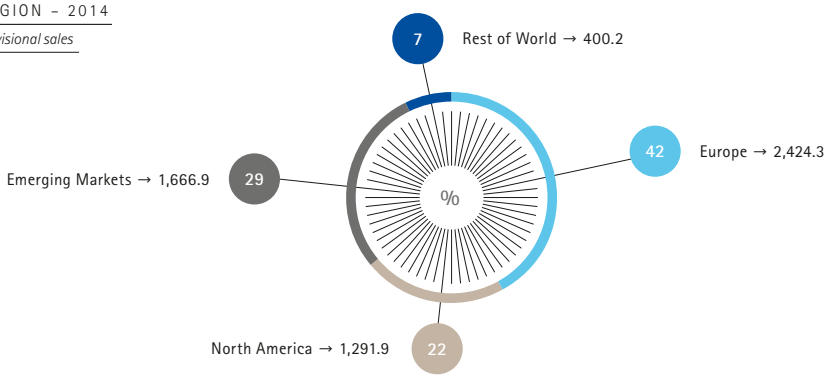
BIOPHARMACEUTICALS →
SALES AND ORGANIC GROWTH BY QUARTER[1,2]
€ million / organic growth in %

[1] Quarterly breakdown unaudited.
[2] Previous year's figures have been adjusted, see "The Group" in the Group management report.

BIOPHARMACEUTICALS →

SALES BY REGION – 2014

€ million / % of divisional sales



Europe, the division's top-selling region, posted a slight organic sales decline of –1.4% and a negative foreign exchange impact of –0.3%, thereby generating sales of € 2,424 million (2013: € 2,467 million). The share of divisional sales accounted for by Europe declined to 42% (2013: 43%). Some western European countries recorded a decline in sales.

At 13.5%, the strongest organic growth was achieved in Emerging Markets, the division's second-largest region in terms of sales. Consequently, the share of sales generated by the Emerging Markets region increased by two percentage points to 29%, thereby demonstrating the growing importance of this region. All franchises contributed to the organic sales growth of the division. The main drivers were Erbitux®, Gonal-f® (treatment of infertility) and medications to treat cardiovascular diseases and thyroid disorders. Taking negative currency effects of –5.3% into account, sales rose by a total of 8.2% to € 1,667 million (2013: € 1,540 million).

Sales in North America amounted to € 1,292 million in 2014, which was slightly more than the previous year (2013: € 1,280 million). Rebif® and the Fertility franchise were primarily responsible for the organic sales increase of 1.0%. Unfavorable foreign exchange effects were responsible for a decline of –0.1%. The North America region contributed 22% to the division's sales (2013: 23%).

In the Rest of World region, sales grew organically by 5.2%, mainly powered by the good sales performance of Erbitux® and strong demand for products from the Fertility franchise. Including negative exchange rate effects of –5.6%, which were primarily attributable to the Japanese yen, sales totaled € 400 million (2013: € 402 million). Once again, the Rest of World region contributed 7% to divisional sales.

BIOPHARMACEUTICALS →

SALES COMPONENTS BY REGION – 2014

€ million / change in %	Sales	Organic growth	Exchange rate effects	Acquisitions / divestments	Total change
Europe	2,424.3	–1.4	–0.3	–	–1.7
North America	1,291.9	1.0	–0.1	–	0.9
Emerging Markets	1,666.9	13.5	–5.3	–	8.2
Rest of World	400.2	5.2	–5.6	–	–0.4
Biopharmaceuticals divison	**5,783.3**	**3.6**	**–1.9**	**–**	**1.7**

In 2014, sales of the key products of the Biopharmaceuticals division developed as follows:

The drug Rebif®, which is used to treat relapsing forms of multiple sclerosis, only posted a slight organic sales decline in 2014, despite increasing competitive pressure from oral formulations. Amid currency headwinds of –1.2%, Rebif® sales amounted to € 1,840 million (2013: € 1,865 million). In North America, which generated 53% of Rebif® sales (2013: 51%) and is the largest market for this product, sales increased to € 971 million in 2014 (2013: € 956 million). Price increases compensated for lower sales volumes, leading to an organic sales increase of 1.5%. In Europe, which accounts for 38% of sales (2013: 40%) and is the second-largest region for the product, sales of Rebif® declined organically by –6.0% to € 698 million due to competition (2013: € 745 million). Together, the Emerging Markets and Rest of World regions continued to account for a 9% share of sales.

In 2014, sales of the oncology drug Erbitux® showed organic growth of 5.9%. Including the foreign exchange impact of –3.4%, which primarily stemmed from the Japanese yen and Latin American currencies, sales increased overall by € 22 million to € 904 million (2013: € 882 million). The Biopharmaceuticals division achieved organic growth in all three regions in which it holds the marketing rights. In Europe, the top-selling region for Erbitux® with a share of 56% (2013: 57%), sales totaled € 504 million (2013: € 501 million), which includes organic growth of 0.7% and insignificant negative exchange rate effects. At 18.1%, the Emerging Markets region generated the strongest organic growth, delivering sales of € 257 million for the division's oncology drug (2013: € 232 million). This region's contribution to total Erbitux® sales thus increased to 28% (2013: 26%). In the Rest of World region, Erbitux® sales declined slightly to € 144 million (2013: € 149 million), since organic growth of 4.1% was unable to offset negative foreign exchange effects of –7.7%. Business developments were positive in Japan, where organic growth amounted to 7.2%. This was mainly attributable to the approval of Erbitux® in head and neck cancer.

BIOPHARMACEUTICALS →

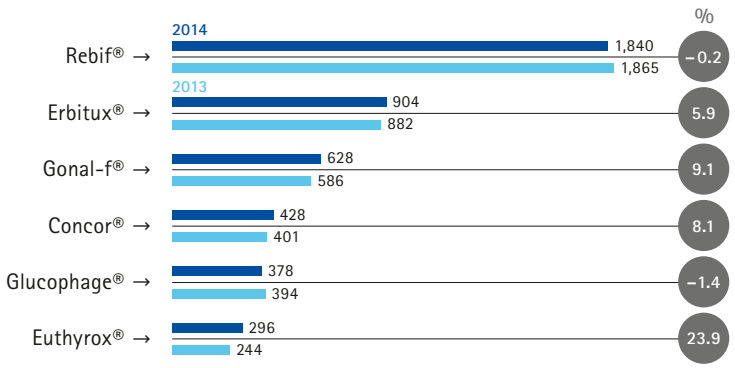
SALES AND ORGANIC GROWTH OF REBIF® AND ERBITUX® BY REGION – 2014

		Total	Europe	North America	Emerging Markets	Rest of World
Rebif®	€ million	1,839.8	698.0	970.7	138.5	32.6
	Organic growth in %	–0.2	–6.0	1.5	21.1	–0.4
	% of sales	100	38	53	7	2
Erbitux®	€ million	903.7	503.5	–	256.6	143.6
	Organic growth in %	5.9	0.7	–	18.1	4.1
	% of sales	100	56	–	28	16

BIOPHARMACEUTICALS →

SALES AND ORGANIC GROWTH OF KEY PRODUCTS

€ million / organic growth in %



In 2014, the Biopharmaceuticals division generated organic sales growth of 9.1% with Gonal-f®, the leading recombinant hormone used in the treatment of infertility. Including adverse foreign exchange effects, sales increased by 7.1% to € 628 million (2013: € 586 million). Sales of Gonal-f® rose in all regions, with the highest absolute growth achieved in the Emerging Markets region. The other products in the Fertility portfolio also developed positively.

At € 394 million, sales by the Endocrinology franchise, which mainly consists of products to treat metabolic and growth disorders, reached the year-earlier figure. Organic growth of 2.0% was offset by negative foreign exchange effects. Sales of the growth hormone Saizen®, the top-selling product of this franchise, saw an organic increase of 4.0% as well as negative foreign exchange effects of –3.3%. Consequently, sales amounted to € 237 million (2013: € 235 million).

The Biopharmaceuticals division's General Medicine franchise (including CardioMetabolic Care), which consists of products to treat cardiovascular diseases and diabetes, among others, generated organic sales growth of 3.9%. Including negative foreign exchange effects, sales amounted to € 1,671 million (2013: € 1,643 million). In particular, the organic sales growth of the beta-blocker Concor® and organic sales of products to treat thyroid disorders (Euthyrox®) developed well. The decline in sales of Glucophage®, which is used to treat diabetes, to € 378 million (2013: € 394) was largely due to the impact of negative currency effects in the first half of 2014, as well as supply constraints in Europe.

The results of operations developed as follows:

BIOPHARMACEUTICALS →
RESULTS OF OPERATIONS

	2014		2013[1]		Change	
	€ million	in %	€ million	in %	€ million	in %
Sales	**5,783.3**	**100.0**	**5,688.4**	**100.0**	**94.9**	**1.7**
Royalty, license and commission income	191.7	3.3	372.0	6.5	–180.3	–48.5
Total revenues	**5,975.0**	**103.3**	**6,060.4**	**106.5**	**–85.4**	**–1.4**
Cost of sales[2]	–1,119.7	–19.4	–1,024.4	–18.0	–95.3	9.3
(of which: amortization of intangible assets)[2]	*(–)*		*(–)*		*(–)*	*(–)*
Gross profit[2]	**4,855.3**	**84.0**	**5,036.0**	**88.5**	**–180.7**	**–3.6**
Marketing and selling expenses[2]	–1,780.2	–30.8	–1,813.6	–31.9	33.4	–1.8
(of which: amortization of intangible assets)[2]	*(–552.8)*		*(–596.7)*		*(43.9)*	*(–7.4)*
Royalty, license and commission expenses	–518.3	–9.0	–547.3	–9.6	29.0	–5.3
Administration expenses	–219.7	–3.8	–202.5	–3.6	–17.2	8.5
Research and development costs[2]	–1,343.7	–23.2	–1,178.1	–20.7	–165.6	14.1
(of which: amortization of intangible assets)[2]	*(–1.0)*		*(–)*		*(–1.0)*	*(–)*
Other operating expenses and income	–36.9	–0.6	–501.4	–8.8	464.5	–92.7
Operating result (EBIT)	**956.5**	**16.5**	**793.1**	**13.9**	**163.4**	**20.6**
Depreciation/Amortization/Reversals of impairments	829.5	14.3	993.5	17.5	–164.0	–16.5
(of which: one-time items)	*(4.7)*		*(189.1)*		*(–184.4)*	*(–97.5)*
EBITDA	**1,786.0**	**30.9**	**1,786.6**	**31.4**	**–0.6**	**–**
Restructuring costs	42.5		62.3		–19.8	–31.8
Integration costs/IT costs	2.4		6.2		–3.8	–61.5
Gains/losses on the divestment of businesses	–		–		–	–
Acquisition-related one-time items	–		–		–	–
Other one-time items	–		–		–	–
EBITDA pre one-time items	**1,830.9**	**31.7**	**1,855.1**	**32.6**	**–24.2**	**–1.3**

[1] Previous year's figures have been adjusted, see "The Group" in the Group management report.
[2] The disclosure of amortization of intangible assets (excluding software) has been changed. See "Accounting and measurement principles" in the Notes to the Group accounts.

Royalty, license and commission income, which is reported under total revenues along with sales, dropped substantially in 2014 by –48.5% to € 192 million (2013: € 372 million). This was due primarily to lower royalty and license income from Humira®, Avonex® and Enbrel®. Among other things, the agreement reached with Bristol-Myers Squibb in 2013 on the co-promotion of Glucophage® in China had a slightly positive effect on commission income in comparison with the previous year.

Taking into account the development of sales and total revenues as well as cost of sales, the gross profit of the Biopharmaceuticals division fell by € –181 million to € 4,855 million, leading to a gross margin of 84.0% (2013: 88.5%). This decrease was primarily due to lower royalty, license and commission income, but also to stronger sales growth in regions with lower margins as well as isolated production and supply bottlenecks.

The division's research spending ratio increased to 23.2% (2013: 20.7%). In 2014, an assessment of the R&D pipeline took place, leading to a prioritization of research activities and the discontinuation of multiple research projects. Provisions, which increased research and development costs in 2014, were set up for future expenses of the discontinued projects. In addition, investments in the Biosimilars pipeline led to higher research and development costs.

The strong improvement in other operating expenses and income (net) in 2014 mainly reflected the adjustment of provisions for litigation (see also "Other operating income and expenses" in the Notes to the Group accounts), as well as to the reduction in one-time expenses. Other operating expenses and income were affected by higher one-time expenses and impairments of intangible assets in connection with the discontinuation of multiple research projects (see "Intangible assets" in the Notes to the Group accounts).

After eliminating depreciation and amortization, and adjusted for one-time items, EBITDA pre one-time items declined by –1.3% to € 1,831 million and the EBITDA margin pre one-time items was 31.7% (2013: 32.6%).

The development of EBITDA pre one-time items in the individual quarters in comparison with 2013 is presented in the following overview:

BIOPHARMACEUTICALS →

EBITDA PRE ONE-TIME ITEMS AND CHANGE BY QUARTER[1,2]

€ million/change in %

[1] Quarterly breakdown unaudited.
[2] Previous year's figures have been adjusted, see "The Group" in the Group management report.

Development of business free cash flow

In 2014, the Biopharmaceuticals division's business free cash flow amounted to € 1,577 million, falling short of the very high level of € 1,787 million in 2013. The decline of € 210 million was attributable to both higher capital spending as well as the development of inventories as well as trade accounts receivable, with foreign exchange effects accounting for the increase in both balance sheet items in 2014.

BIOPHARMACEUTICALS →

BUSINESS FREE CASH FLOW

€ million	2014	2013[1]	Change in %
EBITDA pre one-time items	1,830.9	1,855.1	–1.3
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–229.5	–164.3	39.7
Changes in inventories	–21.8	41.7	–152.0
Changes in trade accounts receivable	–2.4	54.6	–104.4
Business free cash flow	**1,577.2**	**1,787.1**	**–11.7**

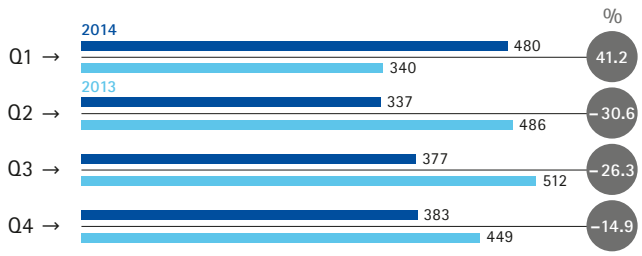
[1] Previous year's figures have been adjusted, see "The Group" in the Group management report.

The development of business free cash flow in the individual quarters in comparison with 2013 is presented in the following overview:

BIOPHARMACEUTICALS →

BUSINESS FREE CASH FLOW AND CHANGE BY QUARTER[1,2]

€ million / change in %



[1] Quarterly breakdown unaudited.
[2] Previous year's figures have been adjusted, see "The Group" in the Group management report.

CONSUMER HEALTH

CONSUMER HEALTH →
KEY FIGURES

€ million	2014	2013[1]	Change in %
Total revenues	768.8	745.0	3.2
Sales	766.1	742.1	3.2
Operating result (EBIT)	149.9	162.1	–7.5
Margin (% of sales)	19.6	21.8	
EBITDA	160.4	171.0	–6.2
Margin (% of sales)	20.9	23.0	
EBITDA pre one-time items	169.4	172.4	–1.7
Margin (% of sales)	22.1	23.2	
Business free cash flow	124.0	172.5	–28.1

[1] Previous year's figures have been adjusted, see "The Group" in the Group management report.

Development of sales and results of operations

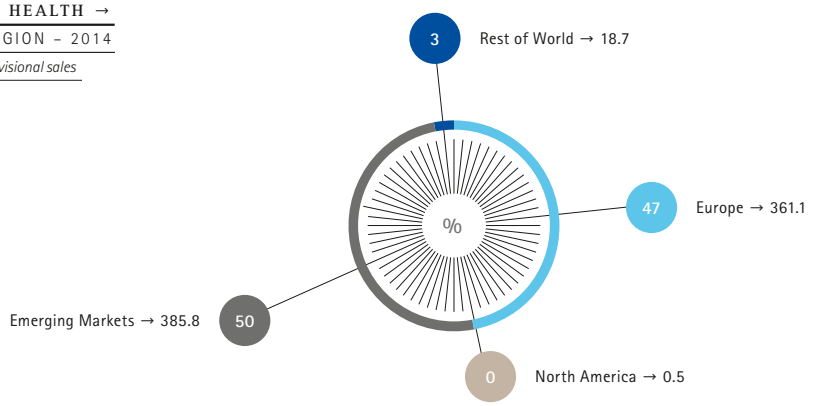
In 2014, sales by the Consumer Health division rose 3.2% to € 766 million (2013: € 742 million). Organic growth of 5.4% was countered by a negative foreign exchange impact of –2.2%. Organic sales growth was mainly driven by the strategic brands Neurobion®, Femibion® and Floratil®, as well as by local brands in Germany, where an increase in the market share of Femibion® was achieved.

The development of sales in the individual quarters in comparison with 2013 as well as the respective organic growth rates are presented in the following overview:

CONSUMER HEALTH →
SALES AND ORGANIC GROWTH BY QUARTER[1,2]
€ million / organic growth in %

[1] Quarterly breakdown unaudited.
[2] Previous year's figures have been adjusted, see "The Group" in the Group management report.

CONSUMER HEALTH →
SALES BY REGION – 2014
€ million / % of divisional sales



From a geographic perspective, the division's two most important regions, namely Emerging Markets and Europe, delivered solid organic growth rates. The Emerging Markets region, which accounts for 50 % of sales (2013: 51 %) and is the division's largest region, posted organic sales growth of 7.1 % and a negative foreign exchange impact of – 4.6 %. Sales in this region thus increased by a total of 2.5 % to € 386 million (2013: € 376 million). Neurobion® in particular proved to be a growth driver and achieved double-digit growth rates in Latin America. Sales benefited from the focus on consumer-oriented marketing activities. For instance in the growth market of Brazil, the anti-diarrheal Floratil® achieved a double-digit growth rate. In Asia, the growth drivers included not only Neurobion® but also the iron supplement Sangobion®. The performance of these two brands was very strong particularly in Indonesia and the Philippines.

In Europe, the Consumer Health division generated organic sales growth of 4.6 % supported by positive foreign exchange effects of 0.6 %, which led to an increase in sales to € 361 million (2013: € 343 million). Strong sales volumes of Femibion®, a nutritional supplement for pregnant women, local brands in Germany as well as Apaisyl®, a French brand of insect repellent and skin care products, more than offset weaker demand for Bion® as well as Nasivin®, which, for example, was impacted by a mild winter. The share of divisional sales accounted for by Europe remained constant at 47 % in 2014 (2013: 46 %).

CONSUMER HEALTH →
SALES COMPONENTS BY REGION – 2014

€ million / change in %	Sales	Organic growth	Exchange rate effects	Acquisitions / divestments	Total change
Europe	361.1	4.6	0.6	–	5.2
North America	0.5	– 56.5	1.6	–	– 54.9
Emerging Markets	385.8	7.1	– 4.6	–	2.5
Rest of World	18.7	– 8.0	– 5.3	–	– 13.3
Consumer Health	**766.1**	**5.4**	**– 2.2**	**–**	**3.2**

The results of operations developed as follows:

CONSUMER HEALTH →
RESULTS OF OPERATIONS

	2014		2013[1]		Change	
	€ million	in %	€ million	in %	€ million	in %
Sales	**766.1**	**100.0**	**742.1**	**100.0**	**24.0**	**3.2**
Royalty, license and commission income	2.7	0.4	2.9	0.4	– 0.2	– 5.0
Total revenues	**768.8**	**100.4**	**745.0**	**100.4**	**23.8**	**3.2**
Cost of sales[2]	– 250.7	– 32.7	– 243.0	– 32.7	– 7.7	3.2
(of which: amortization of intangible assets)[2]	*(–)*		*(–)*		*(–)*	*(–)*
Gross profit[2]	**518.1**	**67.6**	**502.0**	**67.6**	**16.1**	**3.2**
Marketing and selling expenses[2]	– 303.1	– 39.6	– 287.2	– 38.7	– 15.9	5.6
(of which: amortization of intangible assets)[2]	*(– 2.7)*		*(– 2.4)*		*(– 0.3)*	*(15.8)*
Royalty, license and commission expenses	– 2.6	– 0.3	– 2.4	– 0.3	– 0.2	6.2
Administration expenses	– 27.2	– 3.6	– 26.9	– 3.6	– 0.3	0.9
Research and development costs[2]	– 22.3	– 2.9	– 21.8	– 2.9	– 0.5	2.1
(of which: amortization of intangible assets)[2]	*(–)*		*(–)*		*(–)*	*(–)*
Other operating expenses and income	– 13.0	– 1.7	– 1.5	– 0.2	– 11.5	–
Operating result (EBIT)	**149.9**	**19.6**	**162.1**	**21.8**	**– 12.2**	**– 7.5**
Depreciation / Amortization / Reversals of impairments	10.5	1.4	8.9	1.2	1.6	17.6
(of which: one-time items)	*(–)*		*(–)*		*(–)*	*(–)*
EBITDA	**160.4**	**20.9**	**171.0**	**23.0**	**– 10.6**	**– 6.2**
Restructuring costs	9.0		1.2		7.8	–
Integration costs / IT costs	–		–		–	–
Gains / losses on the divestment of businesses	–		–		–	–
Acquisition-related one-time items	–		–		–	–
Other one-time items	–		0.2		– 0.2	–
EBITDA pre one-time items	**169.4**	**22.1**	**172.4**	**23.2**	**– 3.0**	**– 1.7**

[1] Previous year's figures have been adjusted, see "The Group" in the Group management report.
[2] The disclosure of amortization of intangible assets (excluding software) has been changed. See "Accounting and measurement principles" in the Notes to the Group accounts.

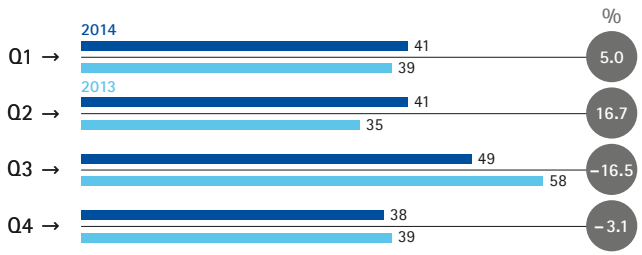
In 2014, the division's gross profit rose by 3.2% to € 518 million. Consequently, gross margin was unchanged at 67.6%. Higher marketing and selling expenses were largely related to the establishment of a consumer-oriented global marketing concept of the division to strengthen strategic brands. The decline in other operating expenses and income (net) to € –13 million (2013: € -2 million) was primarily attributable to the one-time expenses for restructuring measures included under this item. Adjusted for amortization and one-time items, the Consumer Health division reported EBITDA pre one-time items of € 169 million (2013: € 172 million), thus nearly reaching the earnings level of 2013 despite higher marketing and selling expenses. The EBITDA margin pre one-time items was 22.1% in 2014 (2013: 23.2%).

The development of EBITDA pre one-time items in the individual quarters in comparison with 2013 is presented in the following overview:

CONSUMER HEALTH →

EBITDA PRE ONE-TIME ITEMS AND CHANGE BY QUARTER[1,2]

€ million / change in %



[1] Quarterly breakdown unaudited.
[2] Previous year's figures have been adjusted, see "The Group" in the Group management report.

Development of business free cash flow

In 2014, business free cash flow of the Consumer Health division declined by € –48 million or –28.1% to € 124 million. This decrease was primarily the outcome of changes in inventories and trade accounts receivable in comparison with the previous year. The increase in these two balance sheet items lowered business free cash flow in 2014, whereas their development in 2013 had a positive impact on this financial indicator. Higher capital spending in 2014 also lowered business free cash flow.

CONSUMER HEALTH →

BUSINESS FREE CASH FLOW

€ million	2014	2013[1]	Change in %
EBITDA pre one-time items	169.4	172.4	–1.7
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–10.5	–4.1	160.0
Changes in inventories	–20.6	2.0	–
Changes in trade accounts receivable	–14.3	2.2	–
Business free cash flow	**124.0**	**172.5**	**–28.1**

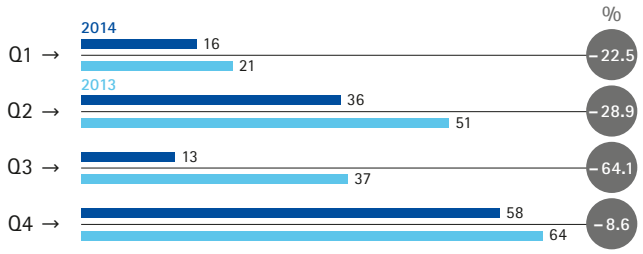
[1] Previous year's figures have been adjusted, see "The Group" in the Group management report.

The development of business free cash flow in the individual quarters in comparison with 2013 is presented in the following overview:

CONSUMER HEALTH →

BUSINESS FREE CASH FLOW AND CHANGE BY QUARTER[1,2]

€ million/change in %



[1] Quarterly breakdown unaudited.
[2] Previous year's figures have been adjusted, see "The Group" in the Group management report.

PERFORMANCE MATERIALS

PERFORMANCE MATERIALS →
KEY FIGURES

€ million	2014	2013	Change in %
Total revenues	2,060.5	1,644.4	25.3
Sales	2,059.6	1,642.1	25.4
Operating result (EBIT)	611.5	653.3	–6.4
Margin (% of sales)	29.7	39.8	
EBITDA	803.6	765.8	4.9
Margin (% of sales)	39.0	46.6	
EBITDA pre one-time items	894.8	779.7	14.8
Margin (% of sales)	43.4	47.5	
Business free cash flow	699.6	787.8	–11.2

Development of sales and results of operations

In 2014, sales of the Performance Materials division grew by 25.4% to € 2,060 million (2013: € 1,642 million). Both solid organic growth of 4.1% as well as acquisition-related sales increases of 22.8% or € 375 million contributed to this increase. Adverse foreign exchange effects lowered sales by –1.5%. Organic growth was delivered by all the existing business units, namely Liquid Crystals, Pigments & Cosmetics and Advanced Technologies, with Liquid Crystals making the largest absolute contribution to sales growth. The acquisition-related sales growth was due to the first-time consolidation of AZ as of May 2, 2014, the integration of which has been completed.

The Liquid Crystals business unit again maintained its market leadership position in liquid crystal materials in 2014. The two leading technologies (PS-VA and IPS) registered strong organic sales growth thanks to continued demand for high-quality (e.g. ultra high-definition) and large-size televisions. This growth was also bolstered by sales volume developments of the new UB-FFS technology, which is mainly used in smartphones and tablet PCs. Higher sales volumes were partly offset by the customary price declines for liquid crystals.

The Pigments & Cosmetics business unit achieved slight organic sales growth in 2014. Xirallic® pigments, which are primarily used in automotive coatings, as well as technical functional materials were the main drivers. Including negative currency effects, sales of the Pigments & Cosmetics business unit reached the year-earlier level.

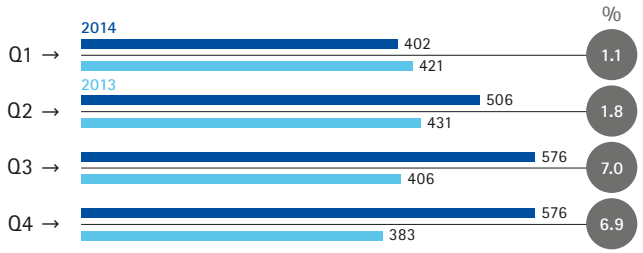
Thanks to higher demand for OLED displays, the Advanced Technologies business unit made a good contribution to the organic growth of the division.

The development of sales in the individual quarters in comparison with 2013 as well as the respective organic growth rates are presented in the following overview:

PERFORMANCE MATERIALS →

SALES AND ORGANIC GROWTH BY QUARTER[1]

€ million / organic growth in %

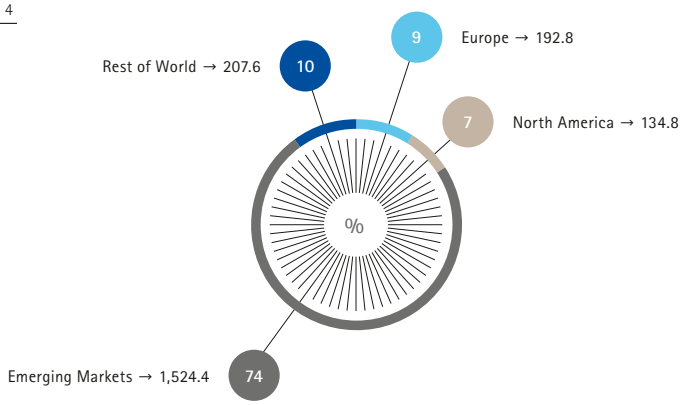


[1] Quarterly breakdown unaudited.

PERFORMANCE MATERIALS →

SALES BY REGION – 2014

€ million / % of divisional sales



Accounting for 74% of sales (2013: 75%), the Emerging Markets region again generated the vast majority of the division's sales. This is due to the concentration of liquid crystal customers as well as high-tech materials from the new AZ business unit in Asia. The division achieved organic sales growth of 4.4% in this region. Sales in the Emerging Markets region rose by 19.8% due to the acquisition of AZ. Taking negative foreign exchange effects of –0.9% into account, sales in this region rose to a total of € 1,524 million (2013: € 1,237 million).

The Rest of World region, which is dominated by Japan, recorded organic sales growth of 10.4%. The acquisition of AZ contributed 31.9% of this increase. Including a foreign exchange impact of –8.9%, which largely stemmed from the Japanese yen, sales in this region reached € 208 million (2013: € 156 million). The share of sales attributable to the Rest of World region thus remained unchanged at 10%.

The division achieved sales of € 193 million in Europe (2013: € 164 million). The rise in sales was almost solely attributable to the first-time consolidation of AZ. The European share of divisional sales in 2014 was 9% (2013: 10%).

In North America, sales grew by 57.5% to € 135 million (2013: € 86 million). This was driven by the acquisition-related sales increase of 61.4%. Organic sales declined by –4.3% due to weaker demand from the cosmetic industry for products from the Pigments & Cosmetics business unit. Consequently, the region contributed 7% to divisional sales in 2014 (2013: 5%).

PERFORMANCE MATERIALS →

SALES COMPONENTS BY REGION – 2014

€ million / change in %	Sales	Organic growth	Exchange rate effects	Acquisitions / divestments	Total change
Europe	192.8	0.4	0.1	16.9	17.4
North America	134.8	–4.3	0.4	61.4	57.5
Emerging Markets	1,524.4	4.4	–0.9	19.8	23.3
Rest of World	207.6	10.4	–8.9	31.9	33.4
Performance Materials	**2,059.6**	**4.1**	**–1.5**	**22.8**	**25.4**

The results of operations developed as follows:

PERFORMANCE MATERIALS →
RESULTS OF OPERATIONS

	2014		2013		Change	
	€ million	in %	€ million	in %	€ million	in %
Sales	**2,059.6**	**100.0**	**1,642.1**	**100.0**	**417.5**	**25.4**
Royalty, license and commission income	0.9	0.0	2.3	0.1	–1.4	–63.1
Total revenues	**2,060.5**	**100.0**	**1,644.4**	**100.1**	**416.1**	**25.3**
Cost of sales[1]	–983.2	–47.7	–617.1	–37.6	–366.1	59.3
(of which: amortization of intangible assets)[1]	*(–46.4)*		*(–1.2)*		*(–45.2)*	*(–)*
Gross profit[1]	**1,077.3**	**52.3**	**1,027.3**	**62.6**	**50.0**	**4.9**
Marketing and selling expenses[1]	–177.8	–8.6	–151.6	–9.2	–26.2	17.3
(of which: amortization of intangible assets)[1]	*(–11.7)*		*(–11.1)*		*(–0.6)*	*(6.0)*
Royalty, license and commission expenses	–1.1	–0.1	–1.3	–0.1	0.2	–13.4
Administration expenses	–56.1	–2.7	–27.8	–1.7	–28.3	101.4
Research and development costs[1]	–170.6	–8.3	–145.4	–8.9	–25.2	17.4
(of which: amortization of intangible assets)[1]	*(–2.8)*		*(–2.3)*		*(–0.5)*	*(22.6)*
Other operating expenses and income	–60.2	–2.9	–47.9	–2.9	–12.3	25.9
Operating result (EBIT)	**611.5**	**29.7**	**653.3**	**39.8**	**–41.8**	**–6.4**
Depreciation / Amortization / Reversals of impairments	192.1	9.3	112.5	6.9	79.6	70.9
(of which: one-time items)	*(–)*		*(–3.7)*		*(3.7)*	*(–)*
EBITDA	**803.6**	**39.0**	**765.8**	**46.6**	**37.8**	**4.9**
Restructuring costs	6.0		11.1		–5.1	–46.1
Integration costs / IT costs	12.2		2.8		9.4	–
Gains / losses on the divestment of businesses	4.6		–		4.6	–
Acquisition-related one-time items	68.4		–		68.4	–
Other one-time items	–		–		–	–
EBITDA pre one-time items	**894.8**	**43.4**	**779.7**	**47.5**	**115.1**	**14.8**

[1] The disclosure of amortization of intangible assets (excluding software) has been changed. See "Accounting and measurement principles" in the Notes to the Group accounts.

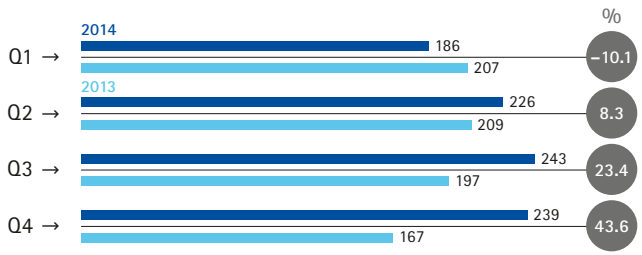
The development of the results of operations was significantly influenced by the inclusion of AZ. In particular, the sharp increase in cost of sales in 2014 related mainly to the first-time consolidation of AZ. The inventories from the acquisition were stepped up to fair values on the date of first-time consolidation. In 2014, the step-up of € 45 million was included as an expense in cost of sales. In addition, cost of sales rose due to the amortization of intangible assets in connection with the AZ purchase price allocation. As a consequence of these one-time expenses, the consolidated contribution of AZ to divisional gross profit was low in 2014. The gross margin of Performance Materials fell accordingly to 52.3% (2013: 62.6%). The decrease in the operating result (EBIT) to € 611 million was due among other things to the described AZ inventory revaluation, which was recognized as an expense as well as additional one-time expenses in connection with the acquisition of AZ. During the determination of EBITDA pre one-time items, these one-time effects from the inventory revaluation were added back. EBITDA pre one-time items thus includes the adjusted earnings contribution from AZ. Along with the very successful business performance of Liquid Crystals, EBITDA pre one-time items thus rose in 2014 by 14.8% to € 895 million. The EBITDA margin pre one-time items fell to 43.4% (2013: 47.5%), reflecting in particular the lower margin of the AZ business.

The development of EBITDA pre one-time items in the individual quarters in comparison with 2013 is presented in the following overview:

PERFORMANCE MATERIALS →

EBITDA PRE ONE-TIME ITEMS AND CHANGE BY QUARTER[1]

€ million / change in %



[1] Quarterly breakdown unaudited.

Development of business free cash flow

In 2014, the Performance Materials division generated business free cash flow of € 700 million (2013: € 788 million). The sharp increase in trade accounts receivable as well as inventories was related to the acquisition of AZ, among other things. This first-time consolidation effect was offset by the adjustment amounting to € 145 million. Higher capital spending in 2014 also lowered cash flow. Consequently, the improvement in EBITDA pre one-time items could not offset the higher level of cash outflows overall.

PERFORMANCE MATERIALS →

BUSINESS FREE CASH FLOW

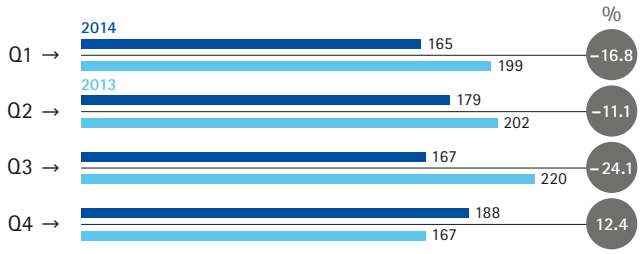
€ million	2014	2013	Change in %
EBITDA pre one-time items	894.8	779.7	14.8
Investments in property, plant and equipment, software as well as advance payments of intangible assets	−97.6	−71.7	36.1
Changes in inventories	−98.8	37.2	–
Changes in trade accounts receivable	−143.4	42.6	–
Adjustments first-time consolidation of AZ Electronic Materials	144.6	–	–
Business free cash flow	**699.6**	**787.8**	**−11.2**

The development of business free cash flow in the individual quarters in comparison with 2013 is presented in the following overview:

PERFORMANCE MATERIALS →

BUSINESS FREE CASH FLOW AND CHANGE BY QUARTER[1]

€ million / change in %



[1] Quarterly breakdown unaudited.

LIFE SCIENCE

LIFE SCIENCE →
KEY FIGURES

€ million	2014	2013	Change in %
Total revenues	2,696.5	2,645.3	1.9
Sales	2,682.5	2,627.5	2.1
Operating result (EBIT)	289.2	262.0	10.4
Margin (% of sales)	10.8	10.0	
EBITDA	598.9	589.8	1.5
Margin (% of sales)	22.3	22.4	
EBITDA pre one-time items	658.6	642.8	2.5
Margin (% of sales)	24.6	24.5	
Business free cash flow	419.0	493.8	–15.2

Development of sales and results of operations

In 2014, the Life Science division posted solid organic sales growth of 4.5%, which was driven by Process Solutions. The organic increase was countered by negative foreign exchange effects of –1.7%. In addition, the division's sales declined by –0.7% in comparison with 2013 owing to the divestment of the Discovery and Development Solutions business field as of March 31, 2014. Including these effects, sales rose overall by 2.1% to € 2,682 million (2013: € 2,628 million). The development of sales in the individual quarters in comparison with 2013 as well as the respective organic growth rates are presented in the following overview:

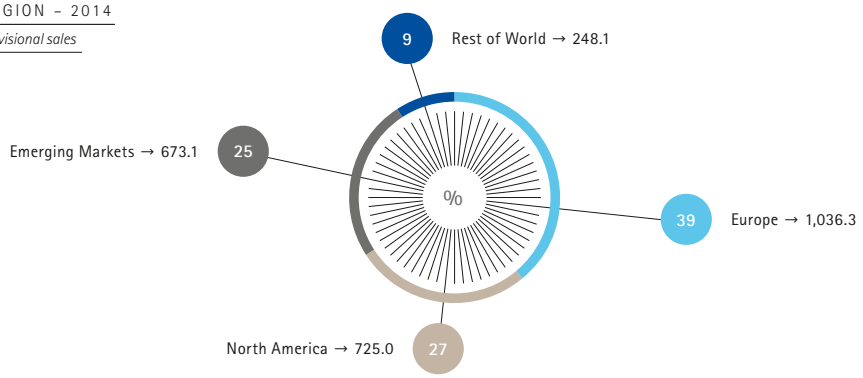
LIFE SCIENCE →
SALES AND ORGANIC GROWTH BY QUARTER[1]
€ million / organic growth in %

[1] Quarterly breakdown unaudited.

LIFE SCIENCE →

SALES BY REGION – 2014

€ million / % of divisional sales



In 2014, the Life Science division achieved organic growth in all regions. Accounting for an unchanged 39 % of divisional sales, Europe remained the division's largest geographic market, delivering organic growth of 2.7 % and sales of € 1,036 million (2013: € 1,010 million). In this region, the strong sales increases achieved by the Process Solutions business area more than offset the slightly weaker business of the Lab Solutions and Bioscience business areas.

In North America, the division achieved organic sales growth of 3.7 %, which was mainly driven by the Process Solutions business area and its products for biopharmaceutical manufacturing, supported by the solid sales performance of the Lab Solutions business area. Sales in North America rose to € 725 million (2013: € 711 million), which represented an unchanged share of 27 % of the Life Science division's global sales in 2014.

Sales developed very positively in the Emerging Markets region, which delivered organic sales growth of 9.1 %. Despite currency headwinds of – 4.2 %, sales rose to € 673 million (2013: € 642 million). The strong organic sales development was fueled by good demand for products from all the division's business areas, with Process Solutions delivering double-digit growth rates in particular. The share of divisional sales generated by the Emerging Markets region therefore increased by one percentage point to 25 %.

As a result of significant currency headwinds of – 7.8 %, especially relative to the Japanese yen, sales in the Rest of World region declined to € 248 million (2013: € 263 million). With slight organic growth of 2.5 %, this region's share of divisional sales declined to 9 % (2013: 10 %).

LIFE SCIENCE →

SALES COMPONENTS BY REGION – 2014

€ million / change in %	Sales	Organic growth	Exchange rate effects	Acquisitions / divestments	Total change
Europe	1,036.3	2.7	0.3	–0.4	2.6
North America	725.0	3.7	0.2	–2.0	1.9
Emerging Markets	673.1	9.1	–4.2	–0.1	4.8
Rest of World	248.1	2.5	–7.8	–0.4	–5.7
Life Science division	**2,682.5**	**4.5**	**–1.7**	**–0.7**	**2.1**

The sales performance of each of the division's three business areas varied in 2014. Whereas the two top-selling business areas, Lab Solutions and Process Solutions, generated higher sales due to price and volume increases, sales of the Bioscience business area nearly remained stable.

The Process Solutions business area, which markets products and services for the pharmaceutical production value chain, generated sales organic growth of 8.9%, which was the highest rate within the Life Science division. This increase resulted mainly from higher demand from the biotech industry for purification and sterilization products as well as filtration systems. Taking into account negative foreign exchange effects of –1.1% as well as the –1.8% decrease in sales due to the divestment of the Discovery and Development Solutions business field, sales amounted to € 1,187 million in 2014 (2013[1]: € 1,121 million). Process Solutions thus accounted for 44% of divisional sales (2013: 43%).

Sales by Lab Solutions, which accounted for a 41% share (2013: 42%) of divisional sales, generated organic sales growth of 1.9% with its broad range of products for researchers and scientific laboratories. Currency headwinds of – 2.4% led to slightly lower sales of € 1,093 million (2013[1]: € 1,099 million) for the business area. Higher sales were primarily achieved by the Lab Water and Biomonitoring business fields.

The Bioscience business area, which primarily markets products and services for academic and pharmaceutical research laboratories, recorded a slight organic sales decline of – 0.5%. Including adverse foreign exchange effects of – 0.9%, sales amounted to € 402 million (2013[1] : € 408 million). Here, for instance, lower demand for antibodies dampened sales. However, this was largely mitigated by higher demand from diagnostic laboratories for cell analysis products. At 15%, the business area's share of divisional sales was unchanged in 2014.

[1] Previous year's figures have been adjusted owing to an internal reorganization.

LIFE SCIENCE →

SALES COMPONENTS BY BUSINESS AREA – 2014

€ million / change in %	Sales	Organic growth	Exchange rate effects	Acquisitions / divestments	Total change
Bioscience	402.5	–0.5	–0.9	–	–1.4
Lab Solutions	1,092.6	1.9	–2.4	–	–0.5
Process Solutions	1,187.4	8.9	–1.1	–1.8	6.0

The results of operations developed as follows:

LIFE SCIENCE →

RESULTS OF OPERATIONS

	2014		2013[1]		Change	
	€ million	in %	€ million	in %	€ million	in %
Sales	**2,682.5**	**100.0**	**2,627.5**	**100.0**	**55.0**	**2.1**
Royalty, license and commission income	14.0	0.5	17.8	0.7	–3.8	–21.4
Total revenues	**2,696.5**	**100.5**	**2,645.3**	**100.7**	**51.2**	**1.9**
Cost of sales[1]	–1,168.7	–43.6	–1,152.3	–43.9	–16.4	1.4
(of which: amortization of intangible assets)[1]	*(–47.6)*		*(–48.0)*		*(0.4)*	*(–0.8)*
Gross profit[1]	**1,527.8**	**57.0**	**1,493.0**	**56.8**	**34.8**	**2.3**
Marketing and selling expenses[1]	–844.1	–31.5	–835.2	–31.8	–8.9	1.1
(of which: amortization of intangible assets)[1]	*(–151.8)*		*(–151.9)*		*(0.1)*	*(–0.1)*
Royalty, license and commission expenses	–15.6	–0.6	–16.1	–0.6	0.5	–3.1
Administration expenses	–110.4	–4.1	–99.2	–3.8	–11.2	11.3
Research and development costs[1]	–162.6	–6.1	–159.8	–6.1	–2.8	1.8
(of which: amortization of intangible assets)[1]	*(–)*		*(–)*		*(–)*	*(–)*
Other operating expenses and income	–105.9	–3.9	–120.7	–4.6	14.8	–12.3
Operating result (EBIT)	**289.2**	**10.8**	**262.0**	**10.0**	**27.2**	**10.4**
Depreciation / Amortization / Reversals of impairments	309.7	11.5	327.8	12.5	–18.1	–5.6
(of which: one-time items)	*(–)*		*(17.3)*		*(–17.3)*	*(–)*
EBITDA	**598.9**	**22.3**	**589.8**	**22.4**	**9.1**	**1.5**
Restructuring costs	11.9		25.4		–13.5	–53.2
Integration costs / IT costs	31.6		23.9		7.7	32.5
Gains / losses on the divestment of businesses	–0.4		0.5		–0.9	–
Acquisition-related one-time items	16.6		–		16.6	–
Other one-time items	–		3.2		–3.2	–
EBITDA pre one-time items	**658.6**	**24.6**	**642.8**	**24.5**	**15.8**	**2.5**

[1] The disclosure of amortization of intangible assets (excluding software) has been changed. See "Accounting and measurement principles" in the Notes to the Group accounts.

Despite higher production costs and slightly lower royalty, license and commission income, gross profit rose by 2.3% in 2014 to € 1,528 million, leading to a higher gross margin of 57.0% (2013: 56.8%). In comparison with the previous year, the Life Science division increased its operating result (EBIT) by 10.4% to € 289 million. After eliminating depreciation and amortization, and adjusted for one-time items, EBITDA pre one-time items, the most important performance indicator, climbed 2.5% to € 659 million, which was mainly due to an increase in gross profit. This resulted in a stable EBITDA margin pre one-time items rise of 24.6%. (2013: 24.5%).

The development of EBITDA pre one-time items in the individual quarters in comparison with 2013 is presented in the following overview:

LIFE SCIENCE →

EBITDA PRE ONE-TIME ITEMS AND CHANGES BY QUARTER[1]

€ million / change in %

[1] Quarterly breakdown unaudited.

Development of business free cash flow

Despite higher EBITDA pre one-time items, business free cash flow of the Life Science division decreased to € 419 million in 2014 (2013: € 494 million). The decline of –15.2% was largely due to the increase in trade accounts receivable in 2014. Higher capital spending as well as an increase in inventories as of December 31, 2014 also lowered this key performance indicator. The increase in the two balance sheet items inventories and receivables as of December 31, 2014 was especially due to foreign exchange effects.

LIFE SCIENCE →

BUSINESS FREE CASH FLOW

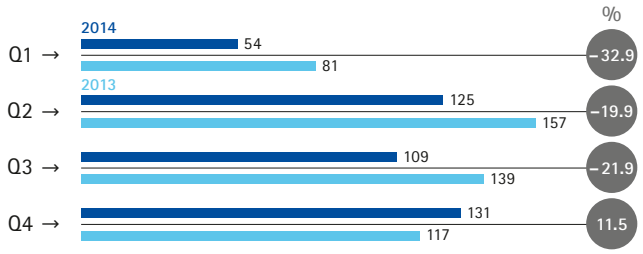
€ million	2014	2013	Change in %
EBITDA pre one-time items	658.6	642.8	2.5
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–141.0	–121.7	15.9
Changes in inventories	– 44.2	–21.3	107.8
Changes in trade accounts receivable	– 54.4	– 6.0	–
Business free cash flow	**419.0**	**493.8**	**–15.2**

The development of business free cash flow in the individual quarters in comparison with 2013 is presented in the following overview:

LIFE SCIENCE →

BUSINESS FREE CASH FLOW AND CHANGE BY QUARTER[1]

€ million / change in %



[1] Quarterly breakdown unaudited.

CORPORATE AND OTHER

Corporate and Other comprises Group administration expenses for Group functions that cannot be directly allocated to the divisions, such as Finance, Procurement, Legal, Communications and Human Resources. Corporate costs additionally encompass expenses for central, non-allocated IT functions, including expenses related to the expansion and harmonization of IT systems within the Group. Accordingly, Corporate and Other has no sales to report. Gains or losses on operational currency hedging are also disclosed under Corporate and Other.

CORPORATE AND OTHER →
KEY FIGURES

€ million	2014	2013	Change in %
Operating result (EBIT)	–245.1	–259.7	–5.6
EBITDA	–226.0	–244.0	–7.3
EBITDA pre one-time items	–166.0	–196.7	–15.5
Business free cash flow	–214.7	–281.2	–23.7

In 2014, administration expenses reported under Corporate and Other decreased to € 195 million (2013: € 206 million). The net amount of operating expenses and income improved to € –42 million (2013: € –47 million), as increased operating foreign currency gains more than offset the higher level of one-time items. In 2014, the foreign currency result showed income of € 53 million (2013: € 32 million) and one-time expenses amounted to € 60 million (2013: € 47 million).

Overall, EBIT improved 5.6% to € –245 million (2013: € –260 million) and EBITDA by 7.3% to € –226 million (2013: € –244 million). Adjusted for one-time effects, EBITDA pre one-time items totaled € –166 million in 2014 (2013: € –197 million). The business free cash flow reported under Corporate and Other amounted to € –215 million in 2014 (2013: € –281 million).

REPORT ON RISKS AND OPPORTUNITIES

Risks and opportunities are inherent to entrepreneurial activity. The Group has put systems and processes in place to identify risks at an early stage and to counteract them by taking appropriate action. At Merck KGaA, Darmstadt, Germany, opportunity management is an integral component of internal decision-making processes such as short- and medium-term operational planning and intra-year business plans.

RISK AND OPPORTUNITY MANAGEMENT

Merck KGaA, Darmstadt, Germany, is part of a complex, global business world and is therefore exposed to a multitude of external and internal influences. Every business decision is therefore based on the associated risks and opportunities.

In our internal risk reporting, risks are defined as possible future events or developments that could lead to a negative deviation from our forecast (financial) targets. In parallel, opportunities are defined as possible events or developments that imply a positive deviation from our planned (financial) targets. Identified future events and expected developments are taken into account in internal planning provided that it can be assumed that their occurrence is likely in the planning period. The risks and opportunities presented in the following risk and opportunities report are those possible future events that could respectively lead to a negative or positive deviation from the topics covered by planning.

Risk management process

The objective of our risk management activities is to recognize, assess and manage risks early on and to implement appropriate measures to minimize them. The responsibilities, objectives and process of risk management are described in our internal risk management guideline. The business heads, managing directors of Merck KGaA, Darmstadt, Germany, subsidiaries, and the heads of Group functions are specified as employees with responsibility for risks. The group of consolidated companies for risk reporting purposes is the same as the group of consolidated companies for the consolidated financial statements. Every six months, the risk owners assess their risk status and report their risk portfolio to Risk Management. The Group uses special risk management software in the context of these activities.

If risk-mitigating measures can be taken, their impact on risk is also assessed. The residual risk after the implementation of mitigation measures is presented in the internal risk report as net risk. The planned timeframe for implementation and the assumed mitigation effect are tracked by Group Risk Management.

Group Controlling & Risk Management forms the organizational framework for risk management and reports directly to the Group Chief Financial Officer. Group Risk Management uses the information reported to determine the current risk portfolio for the Group, presenting this in a report to the Executive Board, the Supervisory Board and the Finance Committee with detailed explanations twice per year. Furthermore, significant changes in the assessment of the risks already known and new significant risks can be reported at any time and are communicated to the corporate bodies on an ad hoc basis.

For the standard process, a lower limit for reporting risks is set at a value of € 5 million and for the ad hoc process at a value of € 25 million. Risks below these limits are steered independently within the business sectors. The relevant timeframe for internal risk reporting is five years. The effects of risks described in this Report on Risks and Opportunities are presented as annual values. The assessment of the risks presented relates to December 31, 2014. There were no relevant changes after the end of the reporting period that would have necessitated an amended presentation of the risk situation of the Group.

Within the scope of audits, Group Internal Auditing regularly reviews the performance of risk management processes within the units and, at the same time, the communication of relevant risks from the operating units to Group Risk Management.

Opportunity management process

The risk management system described concentrates on business risks, and not on opportunities at the same time. The Group's opportunity management process is integrated into our internal controlling processes and carried out in the operating units on the basis of the Group strategy. The divisions analyze and assess potential market opportunities as part of strategy and planning processes. In this connection, investment opportunities are examined and prioritized in terms of their potential value proposition to the Group in order to ensure an effective allocation of resources. The company selectively invests in growth markets to leverage the opportunities of dynamic development and customer proximity at a local level.

If the occurrence of the identified opportunities is rated as likely, they are incorporated into the business plans and the short-term forecasts. Trends going beyond this or events that could lead to a positive development of the net assets, financial position and results of operations are presented in the following report as opportunities. These could have a positive effect on the Group's medium-term prospects and lead to a positive deviation from forecasts.

RISK AND OPPORTUNITY ASSESSMENT

Risks

The significance of risks to the Group is calculated on the basis of their possible negative impact on the forecast financial targets in conjunction with the probability of occurrence of the respective risk. In line with these two factors, risks are classified as "high", "medium" or "low". The underlying scales for measuring these factors are shown below:

PROBABILITY OF OCCURRENCE

Probability of occurrence	Explanation
< 20 %	Unlikely
20 – 50 %	Possible
51 – 80 %	Likely
> 80 %	Very likely

DEGREE OF IMPACT

Degree of impact	Explanation
> € 50 million	Critical negative impact on the net assets, financial position and results of operation
€ 20 – 50 million	Substantial negative impact on the net assets, financial position and results of operations
€ 5 – 20 million	Moderate negative impact on the net assets, financial position and results of operations
< € 5 million	Insignificant negative impact on the net assets, financial position and results of operations

The combination of the two factors results in the risk matrix below, which shows the individual risks and their significance to the Group.

RISK MATRIX

Impact	Risk matrix			
> € 50 million	Medium	Medium	High	High
€ 20 – 50 million	Medium	Medium	Medium	High
€ 5 – 20 million	Low	Medium	Medium	Medium
< € 5 million	Low	Low	Low	Low
Probability of occurrence	< 20 %	20 – 50 %	51 – 80 %	> 80 %

Opportunities

Opportunities are assessed in their respective specific business environment. Marketing measures for operational planning are usually quantified in relation to sales, EBITDA pre one-time items and business free cash flow. Net present value, the internal rate of return (IRR), the return on capital employed (ROCE) and the amortization period of the investment are primarily used to assess and prioritize investment opportunities. Similarly, scenarios are frequently set up to simulate the influence of possible fluctuations and changes in the respective factors on results. There is no overarching, systematic classification of the probability of occurrence and impact of opportunities.

INTERNAL CONTROL SYSTEM FOR THE CONSOLIDATED ACCOUNTING PROCESS

The objective of the internal control system for accounting is to implement controls that provide assurance that the financial statements are prepared in compliance with the relevant accounting laws and standards. It covers measures designed to ensure the complete, correct and timely conveyance and presentation of information that is relevant for the preparation of the consolidated financial statements and the management report of the Group.

The control system is subject to continuous further development and is an integral component of the accounting and financial reporting processes in all relevant local units and Group functions.

With respect to the accounting process, the internal control system measures are intended to reduce the risk of material false statements in the consolidated accounting process of the Group.

Key tools

The internal control system is geared to ensuring the accuracy of the consolidated accounting process and the implementation of internal controls for the preparation of compliant financial statements with reasonable assurance. The Group Accounting function centrally steers the preparation of the consolidated financial statements of Merck KGaA, Darmstadt, Germany, as the parent company of the Group. This Group function defines the reporting requirements that the Group's subsidiaries must meet as a minimum requirement. At the same time, this function steers and monitors the scheduling and process-related requirements of the consolidated financial statements. The Group-wide accounting guidelines form the basis for the preparation of the statutory financial statements of the parent company and of the subsidiaries, which are reported to Group Accounting; the guidelines are adapted to reflect changes in the financial regulatory environment and are updated in accordance with internal reporting requirements. Intra-group transactions are eliminated during the consolidation process. This gives rise to the need for a mirrored entry at the corresponding subsidiaries that is monitored during the consolidation process.

Group Accounting also ensures the timely central management of changes to the equity holding structure and correspondingly adapts the Group's scope of consolidation. The individual companies have a local internal control system. Where financial processes are handled by a Shared Service Center, the internal control system of the Shared Service Center is additionally applied. Both ensure that accounting complies with IFRS (International Financial Reporting Standards) and with the Group accounting guidelines.

Group Accounting provides support to the local contacts and ensures a consistently high quality of reporting throughout the entire reporting process.

The accounting process is designed at all levels to ensure a clearly defined segregation of duties and assignment of responsibilities to the units involved in the accounting process at all times within the scope of dual control.

For the assessment of balance sheet items, Group Accounting closely cooperates with Group Risk Management in order to correctly present potential balance sheet risks. For special issues, such as the measurement of intangible assets within the scope of company acquisitions or pension obligations, external experts are additionally involved where necessary. For the Group accounting process, the company uses a standard SAP software tool in most countries. Via a detailed authorization concept to limit user rights on a need-to-have basis, and in line with the principles of the separation of duties, the system contains both single-entity reporting and the consolidated financial statements.

The effectiveness of the Group's internal control system with regard to accounting and the compliance of financial reporting by the individual companies is confirmed by both the local managing director and the local chief financial officer when they sign the single-entity reporting. All the structures and processes described are subject to regular review by Group Internal Auditing based on an annual audit plan set out by the Executive Board. The results of these audits are dealt with by the Executive Board, the Supervisory Board and the Finance Committee.

The internal control system at the Group makes it possible to lower the risk of material misstatements in accounting to a minimum. However, no internal control system – regardless of its design – can entirely rule out a residual risk.

BUSINESS-RELATED RISKS AND OPPORTUNITIES

Political and regulatory risks and opportunities

As a global company, Merck KGaA, Darmstadt, Germany, faces political and regulatory changes in a large number of countries and markets.

Risk of more restrictive regulatory requirements regarding drug pricing, reimbursement and approval

In the Healthcare business sector the familiar trend towards increasingly restrictive requirements in terms of drug pricing, reimbursement and approval is continuing. These requirements can negatively influence the profitability of the company's products, also through market referencing between countries, and jeopardize the success of market launches and new approvals. Close communication with health and regulatory agencies serves as a preventive measure to avert risks. An estimation of the risks is market- and product-specific; overall the risk is seen as being likely for the Group and could have a critical negative impact on the net assets, financial position and result of operations. It is therefore classified as a medium risk.

Risk of stricter regulations for the manufacture, testing and marketing of products

Likewise, in its Life Science and Performance Materials business sectors must adhere to a multitude of regulatory specifications regarding the manufacture, testing and marketing of many of its products. Specifically in the European Union, the Group is subject to the European chemicals regulation REACH. It demands comprehensive tests for chemical products. Test procedures can be costly and time-intensive, and lead to a rise in manufacturing costs. Moreover, the use of chemicals in production could be restricted, which would make it impossible to continue manufacturing certain products. The company is constantly pursuing research and development in substance characterization, and in the possible substitution of critical substances in order to reduce the occurrence of this risk and therefore views it as unlikely. Nevertheless, it is still classified as a medium risk given its potential critical negative impact on the net assets, financial position and results of operations.

Risk of destabilization of political systems and the establishment of trade barriers

The destabilization of political systems (as for example in Ukraine and the Middle East) and the possible establishment of trade barriers as well as foreign exchange policy changes can lead to declines in sales in certain countries and regions. Diversification in terms of products, industries and regions serves to mitigate potential negative effects. The effects of corresponding risks are taken into account to the best of ability in the business plans for the countries and regions concerned. In particular, our business can furthermore be affected by macroeconomic developments in, for example, Venezuela, Argentina, Russia, and Greece. Corresponding sales strategy measures have been introduced in these countries to minimize the impact on business.

Nevertheless, the residual net risk could have critical negative effects on the net assets, financial position and results of operations and its occurrence is considered possible. The Group rates this as a medium risk overall.

Market risks and opportunities

Merck KGaA, Darmstadt, Germany, competes with numerous companies in the pharmaceutical, chemical and life science sectors. Rising competitive pressure can have a significant impact on the quantities sold and prices attainable for the Group's products.

Opportunities due to the further development of the Biosimilars business

The possibilities offered by the development and approval of biosimilars represent opportunities for Merck KGaA, Darmstadt, Germany. For instance, over the past two and a half years, the Group has moved forward with the development of its own Biosimilars business unit and has entered into partnerships with Dr. Reddy's Laboratories Ltd., India, among others, to co-develop a portfolio of biosimilars in oncology. Moreover, in April 2014, a Brazilian market partnership was established with Bionovis SA, Brazil, (Bionovis SA) for a portfolio of biosimilars. Although a significant contribution to sales is not to be expected before the medium to long term, the expenditure required for this has already been taken into account in the Group's planning.

Opportunities due to a new technology in the manufacture of OLED displays

The Group is building on more than ten years of experience in manufacturing organic light-emitting diode (OLED) materials as well as a strong portfolio of worldwide patents in order to develop ultrapure and extremely stable materials that are precisely tailored to customer requirements. The development in the OLED market is being driven by the diversification of applications for OLED displays. While OLED displays are mainly used today in small-area displays, for example smartphones, more and more large-area displays could also be based on OLED technology in the future. In order to overcome the technical and financial obstacles of the mass production of large-area OLED displays, the Group has been cooperating since the end of 2012 with Seiko Epson Corporation, Japan (Seiko Epson). This cooperation has opened up new avenues in the manufacture of OLED displays. The combination of durable OLED materials from the company and inkjet printing technology from Seiko Epson makes it possible to quickly and precisely produce high-resolution OLED displays using inkjet technology. The inkjet printing of large OLED displays can resolve the productivity problems of the conventional vapor-deposition processes. In addition, this technique deposits material only in the areas where

diodes are actually created, thus enabling the optimal use of materials and energy. Merck KGaA, Darmstadt, Germany, thus sees the possibility of significant market growth for OLED applications in the medium to long term and thus related opportunities for the company.

Opportunities due to new application possibilities for liquid crystals

Merck KGaA, Darmstadt, Germany, is pursuing a strategy of leveraging its expertise as the global market leader in liquid crystals in order to develop new fields of application for innovative liquid crystal technology, e.g. liquid crystal windows (LCW) or mobile antennas. With the acquisition of its long-standing cooperation partner Peer+ B.V., Netherlands, (Peer+ B.V.) the company is further advancing the development of the future-oriented market for LCW. Thanks to licrivision™ technology, LCW create new architectural possibilities. Through progressive brightness control, they can for example increase a building's energy efficiency. In 2015, the first pilot projects for LCW will begin, meaning that the technology will require intensive development work prior to market readiness. Consequently, the Group expects that the potential positive effects on the results of the Performance Materials business will only materialize in the medium to long term.

Antennas that can receive signals transmitted in the high frequency range (e.g. Ka and Ku band) can also be realized with the aid of corresponding liquid crystal mixtures. As a result, mobile data exchange could improve significantly in a wide variety of fields of application. Since liquid crystal materials for antennas are currently being developed, the market launch of liquid crystal antennas could still take a few years. Consequently, positive effects on the financial results of the Performance Materials business may only materialize in the medium to long term.

Risk due to increased competition and customer technology changes

In the pharmaceutical sector, both the Group's biopharmaceutical products and classical pharmaceutical businesses are exposed to increased competition from competing products. In the chemical sector, risks are posed by not only cyclical business fluctuations but also, particularly with respect to liquid crystals, changes in the technologies used or customer sourcing strategies. The company uses close customer relationships and in-house further developments as well as precise market analyses as mitigating measures.

The Group is in negotiations with a competitor regarding potential patent infringements in the Performance Materials business sector. Merck KGaA, Darmstadt, Germany, maintains that the competitor's patent infringement assertion is invalid owing to relevant prior art. The competitor has threatened to file patent infringement lawsuits. The company is prepared for a confrontation in this issue and will conduct negotiations with the aim of clarifying the situation.

Nevertheless, the market risk is still classified overall as a medium risk owing to its likely probability of occurrence and critical negative impact.

Risks and opportunities of research and development

For Merck KGaA, Darmstadt, Germany, innovation is a major element of the Group strategy. Research and development projects can experience delays, expected budgets can be exceeded, or targets remain unmet. Research and development are of special importance to the Pharmaceuticals business. In the course of portfolio management, the company regularly evaluates and, if necessary, refocuses research areas and all R&D pipeline projects.

Special mention should be made of the strategic alliance between Merck KGaA, Darmstadt, Germany, and Pfizer Inc., USA, (Pfizer Inc.) as a research and development opportunity in the Pharmaceuticals business. By making the required investments jointly and combining their strengths and expertise, the two companies will maximize the potential value of the research compound MSB0010718C, an anti-PD-L1 antibody from the Group. Owing to the relatively long cycles in active ingredient development, the company expects that the positive effects of its anti-PD-L1 antibody will be reflected in the results of the Healthcare business sector in the medium to long term and sees opportunities for an increase in future sales and profitability.

Risks of discontinuing development projects and regulatory approval of developed medicines

Sometimes development projects are discontinued after high levels of investment at a late phase of clinical development. Decisions – such as those relating to the transition to the next clinical phase – are taken with a view to minimizing risk. Furthermore, there is a risk that the regulatory authorities either do not grant or delay approval, which can have an impact on earnings. Additionally, there is the danger that undesirable side effects of a pharmaceutical product could remain undetected until after approval or registration, which could result in a restriction of approval or withdrawal from the market.

In 2014, the risk-benefit profile of individual development projects in the R&D portfolio was analyzed, leading to the prioritization of projects. This prioritization resulted in the termination of multiple development projects. Overall, the termination of the projects had a critical negative impact on the net assets, financial position and results of operations.

Risks and opportunities of product quality and availability

Risk of a temporary ban on products / production facilities or of non-registration of products due to non-compliance with quality standards

The Group is required to comply with the highest standards of quality in the manufacture of pharmaceutical products (Good Manufacturing Practice). In this regard the company is subject to the supervision of the regulatory authorities.

Conditions imposed by national regulatory authorities could result in a temporary ban on products / production facilities, and possibly affect new registrations with the respective authority. The Group takes the utmost effort to ensure compliance with regulations, regularly performs its own internal inspections and carries out external audits. Thanks to these quality assurance processes, the occurrence of a risk is unlikely, however cannot be entirely ruled out. Depending on the product concerned and the severity of the objection, such a risk can have a critical negative impact on the net assets, financial position and results of operations. Therefore, the Group rates this as a medium risk.

On a positive note in comparison with 2013, the FDA warning letter received in 2011 was closed, thus eliminating the risk resulting from this warning letter of a ban on importing products to the United States.

Risks of dependency on suppliers

Quality controls along the entire value chain reduce the risks related to product quality and availability. This starts with the qualification of our suppliers. Quality controls also include comprehensive quality requirements for raw materials, purchased semi-finished products and plants, as well as long-term strategic alliances in the case of supply- and price-critical precursor products. The Group is dependent on individual suppliers of precursor products for some of its main products. In the event that one of these suppliers curtails or discontinues production, or supply is disrupted, this could possibly have a critical negative impact on the Group business concerned. With long-term strategic alliances for precursor products critical to supply and price as well as alternative sourcing strategies, the company reduces the probability of occurrence of these risks and rates them as unlikely. Overall, these are classified as medium risks.

Damage and product liability risks

Further risks include the risk of operational failures due to force majeure, for example natural disasters such as floods or earthquakes, which could lead to a substantial interruption or restriction of business activities. Insofar as it is possible and economical to do so, the Group limits its damage risks with insurance coverage, the nature and extent of which is constantly adapted to current requirements. Although the occurrence of these risks is considered unlikely, an individual event could have a critical negative effect on the net assets, financial position and results of operations and is therefore classified as a medium risk.

Companies in the chemical and pharmaceutical industries are exposed to product liability risks in particular. Product liability risks can lead to considerable claims for damages and costs to avert damages. The Group has taken out the liability insurance that is standard in the industry for such risks. However, it could be that the insurance coverage available is insufficient for individual cases. Although the occurrence of product liability claims in excess of the existing insurance coverage is considered unlikely, individual cases could still have a critical negative effect on the net assets, financial position and results of operations. The company therefore rates potential product liability risk as a medium risk.

Risks due to product-related crime and espionage

Owing to its portfolio, the company is exposed to a number of sector-specific crime risks. This relates primarily to products, including, among other things, counterfeiting, illegal channeling, misuse as well as all types of property crime, including attempts at these crimes. Crime phenomena such as cybercrime and espionage could equally affect our innovations or innovation ability as such; this includes in particular undesirable losses of information in all relevant possible ways, both in the IT area as well as with respect to non-IT-based threats.

To combat product-related crime, Merck KGaA, Darmstadt, Germany, established an internal coordination network covering all functions and businesses ("Anti-Counterfeiting of Merck KGaA, Darmstadt, Germany") several years ago. In addition, security measures are in use to protect products against counterfeiting. Innovative technical security solutions and defined preventive approaches are used to ward off dangers relating to cybercrime and espionage. Measures to prevent risks and to prosecute identified offenses are conducted in all the relevant crime areas in close and trustworthy cooperation with the responsible authorities.

The impact of these risks on business operations depends on the respective individual case, product-specific factors, the value chain, as well as on regional aspects in particular. Group Security is responsible for the overall coordination of all measures in this area. Overall, the threat resulting from crime in general is seen as being likely for the company and is classified as a medium risk.

Opportunities due to an expanding local presence in high-growth markets

In the coming years, Merck KGaA, Darmstadt, Germany, still anticipates above-average growth for all its business sectors in the markets of Latin America, the Middle East and Africa as well as Asia. In order to further enable this growth, the Group has moved forward with several investment projects, such as the construction of new production facilities for liquid crystals and the establishment of a new pharma production site in China. Moreover, the company is strengthening its activities in Africa through strategic investments as well as geographic expansion in selected regions. The greater local presence and customer proximity could lend the company a key competitive edge and, in the medium to long term, offer the opportunity for significant additional growth in sales and EBITDA pre one-time items.

FINANCIAL RISKS AND OPPORTUNITIES

As a corporate group that operates internationally and due to its presence in the capital market, the company is exposed to various financial risks and opportunities. Above all, these are liquidity and counterparty risks, financial market risks and opportunities, risks of fluctuations in the market values of operational tangible and intangible assets, as well as risks and opportunities from pension obligations.

Risk and opportunity management in relation to the use of financial instruments

In the area of financial risks and opportunities, the Group uses an active management strategy to reduce the effects of fluctuations in exchange and interest rates. The management of financial risks and opportunities by using derivatives in particular is regulated by extensive guidelines. There is a ban on speculation and derivative transactions entered into are subject to ongoing risk management procedures. Trading, settlement and control functions are strictly separated.

Liquidity risks

In order to ensure its continued existence, a company must be able to fulfill its commitments from operating and financial activities at all times. Merck KGaA, Darmstadt, Germany, therefore has a central Group-wide liquidity management process to reduce potential liquidity risks. Furthermore, the company has a multi-currency revolving credit facility of € 2 billion with a term of five years and an extension option of one year that, above and beyond the Group's positive operating cash flow, ensures continuing solvency if any liquidity bottlenecks occur. As our loan agreements do not contain any financial covenants, these agreed lines of credit can be accessed even if the company's credit rating should deteriorate. Additionally, the Group has a commercial paper program with a maximum volume of € 2 billion as well as a debt issuance program that forms the contractual basis for the issue of bonds with a nominal volume of up to € 15 billion.

A purchase price of US$ 17 billion is payable for the planned acquisition of Sigma-Aldrich. This is covered by cash on hand as well as further syndicated credit lines with a bank consortium and currency hedging. Some of the credit lines are being successively replaced by the issuance of bonds.

Overall, the liquidity risk is rated as unlikely.

Counterparty risks

Counterparty risks arise from the potential default by a partner in connection with financial investments, loans and financing commitments on the one hand and receivables in operating business on the other.

As for counterparty risks from financial transactions, the Group reviews all positions relating to trading partners and their credit ratings on a daily basis. The company manages financial risks of default by diversifying its financial positions and thereby by the active management of its trading partners. Significant financial transactions involving credit risk are entered into with banks and industrial companies that have a good credit rating. Moreover, the Group's large banking syndicate – the multi-currency revolving credit facility of € 2 billion was syndicated by 19 banks – reduces possible losses in the event of default.

The solvency and operational development of trading partners are regularly reviewed as part of the management of operational counterparty risks. Sovereign risks are also analyzed. The volume of receivables of each customer is capped in line with their credit ratings. Risk-mitigating measures, such as credit insurance, are utilized as appropriate. Nevertheless, defaults by isolated trading partners, even those with outstanding credit ratings, cannot be entirely ruled out, although rated as unlikely (further information can be found in "Credit risks" under "Management of financial risks" in the Notes to the Group accounts).

Counterparty risk is classified as a medium risk overall owing to the unlikely probability of occurrence with a potential critical negative effect.

Financial market opportunities and risks

As a result of its international business activities and global corporate structure, the Group is exposed to risks and opportunities from fluctuations in exchange rates. These result from financial transactions, operating receivables and liabilities, forecast future cash flows from sales and costs in foreign currency. The Group uses derivatives to manage and reduce the aforementioned risks and opportunities (further information can be found in "Derivative financial instruments" in the Notes to the Group accounts). Foreign exchange risks with a potential critical negative effect on the net assets, financial position and results of operations are rated as possible.

Future refinancing, particularly the financing of the Sigma-Aldrich acquisition, and monetary deposits are subject to the risks and opportunities of interest rate fluctuations. These are also managed and reduced using derivatives. Interest rate risks with a potentially significantly negative impact are considered unlikely and pose medium risks overall.

Risks of impairment on balance sheet items

The carrying amounts of individual balance sheet items are subject to the risk of changing market and business conditions and thus to changes in fair values as well. The need for write-downs could lead to significant non-cash profit burdens and changes in balance sheet ratios. This applies in particular to the high level of intangible assets including goodwill, which mainly derive from the purchase price allocations made in connection with past acquisitions (further information can be found under "Intangible assets" in the Notes to the Group accounts). All relevant risks were assessed during the preparation of the consolidated financial statements and taken into account accordingly. The Group rates risks beyond this as low.

Risk and opportunities from pension obligations

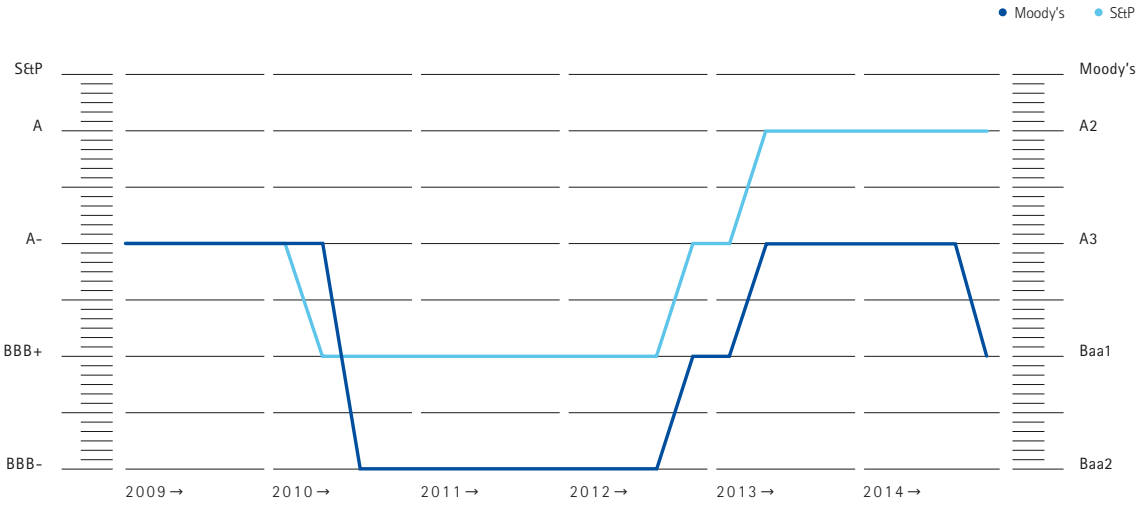
Merck KGaA, Darmstadt, Germany, has commitments in connection with pension obligations. The present value of defined benefit obligations can be significantly increased or reduced by changes in the relevant valuation parameters, e.g. the interest rate or future salary increases. Pension obligations are regularly assessed as part of annual actuarial reports. Some of these obligations are covered by the pension provisions reported in the balance sheet, while other obligations are externally funded (further information can be found under "Provisions for pensions and other post-employment benefits" in the Notes to the Group accounts). To the extent that pension obligations are covered by plan assets consisting of interest-bearing securities, shares, real estate, and other financial assets, decreasing or negative returns on these assets can adversely affect the fair value of plan assets and thus result in further additions to pension provisions. By contrast, rising returns increase the value of plan assets, thereby resulting in excess cover of plan liabilities. The Group increases the opportunities of fluctuations in the market value of plan assets on the one hand and reduces the risks on the other by using a diversified investment strategy. The risk due to pension obligations is possible, could moderately impact the net assets, financial position and result of operations, and is considered to be medium.

Assessments by independent rating agencies

The capital market uses the assessments published by rating agencies to help lenders assess the risks of a financial instrument. The Group is currently rated by the agencies Standard & Poor's and Moody's. While Standard & Poor's issued a long-term rating of A with a negative outlook, Moody's issued it a Baa1 rating with a negative outlook. The drop in the Moody's rating by one grade in comparison with the previous year as well as the negative outlook of both rating agencies is due to the expected higher debt level in the course of the Sigma-Aldrich transaction. In line with market procedures, the company's financing conditions are closely tied to its rating. The better a rating, the more favorably the Group can generally raise funds on the capital market or from banks.

REPORT ON RISKS AND OPPORTUNITIES →

OVERVIEW OF RATING DEVELOPMENT:



Source: Own illustration.

LEGAL RISKS

Merck KGaA, Darmstadt, Germany, generally strives to minimize and control its legal risks. The Group has taken the necessary precautions to identify threats and defend its rights where necessary.

Nevertheless, the Group is still exposed to litigation risks or legal proceedings. These include in particular risks in the areas of product liability, competition and antitrust law, pharmaceutical law, patent law, tax law, and environmental protection. As a research-based company, the company has a valuable portfolio of industrial property rights, patents and brands that could become the target of attacks and infringements. The outcome of future proceedings or those currently pending is difficult to foresee. Generally, it is not possible to rule out that the Group will face third-party claims arising from the same issue despite the conclusion of legal proceedings. Court or official rulings or settlements can lead to expenses with a significant impact on our business and earnings.

Tax risks are reviewed regularly and systematically by Group Tax. Corresponding standards and guidelines are used in order to identify tax risks at an early stage as well as to review, evaluate and correspondingly minimize them. Measures to reduce risks are coordinated by Group Tax together with the subsidiaries abroad.

Merck KGaA, Darmstadt, Germany, views the legal matters described below as the most significant legal risks. This should not be seen as an exhaustive list of all legal disputes currently ongoing.

Risks from product-related and patent law disputes

The litigation risk with Israel Bio-Engineering Project Limited Partnership ("IBEP") was eliminated as of the end of 2014. IBEP asserted claims for property rights and the payment of license fees for the past and the future. The legal disputes were connected to the financing of the development of medical research projects in the early 1980s. The Group had taken appropriate accounting measures for these legal disputes in the past. In 2014, the company achieved a settlement with IBEP according to which the legal disputes were settled in exchange for a sum of money. The settlement led to lower cash payments than previously expected.

The Group is involved in a patent dispute in the United States with Biogen IDEC Inc. (Massachusetts, USA) ("Biogen"). Biogen claims that the sale of Rebif® in the United States infringes on a Biogen patent. The patent in question was granted to Biogen in 2009 in the United States. Subsequently, Biogen sued Merck KGaA, Darmstadt, Germany, and other pharmaceutical companies for infringement of this patent. The Group defended itself against all allegations and brought a countersuit with the claim that the patent was invalid and not infringed on by the company's actions. A Markman hearing took place in January 2012, however a decision has not yet been announced. The parties are currently engaged in court-ordered mediation proceedings that have not yet officially ended. It is currently not clear when a first-instance decision will be made. Merck KGaA, Darmstadt, Germany, has taken appropriate accounting measures. Given the potential critical negative effects of the legal dispute on the financial position in case of a negative decision, the Group nevertheless classifies this as a high risk.

Risks due to antitrust and other government proceedings

Raptiva®: In December 2011, the federal state of São Paulo sued Merck KGaA, Darmstadt, Germany, for damages because of alleged collusion between various pharmaceutical companies and an association of patients suffering from psoriasis and vitiligo. This collusion is alleged to have been intended to increase sales of the medicines from the companies involved to the detriment of patients and state coffers. Moreover, patients are also suing for damages in connection with the product Raptiva®. The Group has taken appropriate accounting measures for these issues. Risks in excess of this with a substantial negative effect on the net assets, financial position and results of operations cannot be ruled out, but are considered unlikely. This is rated as a medium risk.

In one jurisdiction, the company is subject to a government investigation regarding compliance with foreign exchange transfer restrictions. In this connection, the responsible authorities are investigating whether import prices led to impermissibly high foreign exchange transfers. Appropriate accounting measures have been taken for repayments and fines that are estimated to be probable due to the uncertain legal situation in the affected country. The Group rates this as a medium risk since significant negative effects on the financial position cannot be ruled out.

Risks from drug pricing by the divested Generics Group

Paroxetine: In connection with the divested generics business, the company is subject to antitrust investigations by the British Competition and Market Authority (CMA) in the United Kingdom. In March 2013, the authorities informed Merck KGaA, Darmstadt, Germany, of the assumption that a settlement agreement entered into in 2002 between Generics (UK) Ltd. and several GlaxoSmithKline companies in connection with the antidepressant drug paroxetine violates British and European competition law. Merck KGaA, Darmstadt, Germany, the then owner of Generics (UK) Ltd., was allegedly involved in the negotiations for the settlement agreement and is therefore liable. The investigations into Generics (UK) Ltd. started in 2011, without the Group being aware of this. It is considered likely that the CMA will impose a fine on Merck KGaA, Darmstadt, Germany. The Group has taken appropriate accounting measures. Given the lawsuit's potential substantial negative impact on the financial position, the company classifies this as a medium risk.

HUMAN RESOURCES RISKS

The Group's future growth is highly dependent on its innovativeness. Therefore, the expertise and engagement of employees in all sectors in which Merck KGaA, Darmstadt, Germany, operates are crucial to the success of the company.

The markets relevant to the Group are characterized by intensive competition for qualified specialists and by demographic challenges. Staff turnover risks specific to countries and industries have to be identified ahead of time and specifically addressed in order to keep the skills and expertise critical to success and business within the company.

Recruiting and retaining specialists and talent at the Group is therefore one of the key priorities for the company and is managed through the targeted use of, for instance, employer branding initiatives, global talent and succession management processes as well as competitive compensation packages. Nevertheless, employee-related risks that affect business activities are possible, even though their impact is difficult to assess. The Group rates this as a medium risk.

INFORMATION TECHNOLOGY RISKS

Merck KGaA, Darmstadt, Germany, uses a variety of IT systems and processes in order to optimally focus and adequately support its globalization. Trends in information technology offer various opportunities but also harbor risks for the Group.

Risks due to cybercrime and the failure of business-critical IT applications

Increasing international networking and the related possibility of IT system abuse are resulting in cybercrime risks for the Group, such as the failure of central IT systems, the disclosure of confidential research and business development data, the manipulation of IT systems in chemical process control, or an increased burden or adverse impact on IT systems as a result of virus attacks. The entire Group has global security guidelines and information protection management for IT and non-IT areas, each with organizational and technical standards for access rights as well as information and data protection, based on ISO 27001.

Additionally, IT applications used globally form the basis for the contractual delivery of products and solutions. The failure of business-critical IT applications could therefore have a direct influence on the company's ability to deliver; likewise this applies to the failure of a data center. To achieve the required service quality, the Group uses a quality management system certified to ISO 20000:2011. In addition, to reduce the risk of failure, the company operates several redundantly designed data centers.

Despite the mitigating measures taken and functional continuity plans, the effects of cybercrime or the failure of business-critical IT applications and their influence on the net assets, financial position and results of operations are considered a medium risk owing to potentially significant negative effects.

ENVIRONMENTAL AND SAFETY RISKS

As a company with global production operations, the Group is exposed to risks of possible damage to people, goods and its reputation. Audits, consulting and training on environmental protection and occupational health and safety minimize these risks to people and the environment. In order to ensure the continuity of plant and equipment, Merck KGaA, Darmstadt, Germany, monitors these risks both at its own sites as well as at suppliers and contract manufacturers. By adhering to high technical standards, our rules of conduct and all legal requirements in environmental protection and occupational health and safety, the Group ensures the preservation of goods and assets. Sufficient appropriate accounting measures have been taken for the environmental risks known to us. Nevertheless, the company classifies these as a high risk since a critical negative impact on the financial position cannot be ruled out.

ACQUISITION RISKS

Irrespective of the fact that Merck KGaA, Darmstadt, Germany, has successfully completed acquisitions made in the past, the risk of conducting the acquisition and integration exists for future transactions. This includes among other things the inability to meet sales volume targets and higher integration costs than expected, as well as the failure to meet synergy goals. In addition, the currently planned acquisition of Sigma-Aldrich is subject to antitrust clearance and if the acquisition is not conducted, fines could become payable to the acquisition target. Thanks to strong due diligence processes and closely managed integration processes, the Group rates the probability of occurrence of this risk as unlikely. However, owing to the amount of potential fines, the overall risk could have a critical negative effect on the net assets, financial position and results of operations and is therefore classified as a medium risk.

OVERALL VIEW OF THE RISK AND OPPORTUNITY SITUATION AND MANAGEMENT ASSESSMENT

Although the number of risks reported is higher than the identified specific opportunities, Merck KGaA, Darmstadt, Germany, considers the distribution of risks and opportunities to be balanced. A balanced overall view within the Group is also supported by the fact that total revenues and business success are built on a diversity of pharmaceutical and chemical products for a variety of industries. As the markets differ in their structure and economic cycles, this diversification helps to lower risk. This diversification will be strengthened by the takeover of AZ, which has already occurred, the planned acquisition of Sigma-Aldrich and the alliance with Pfizer. It is also an expression to further develop the Group as a leading company for innovative and top-quality high-tech products in healthcare, life science and performance materials.

The most significant individual risks in the divisions have been named in the report above, with business-related risks being the most significant to the Group alongside the legal risks.

The successful closing of the FDA warning letter and the settlement of patent litigation with Israel Bio-Engineering Project Limited Partnership (IBEP) had a positive effect on the risk situation of the Group. Above and beyond this, with respect to high and medium risks the company has determined only minor changes although the assessment of the individual risks has of course altered over the fiscal year as a result of changing external conditions. Thanks to the risk reduction measures taken – such as the consistent implementation of management action (organizational responsibility and process improvements), existing insurance coverage and accounting precautions – the Group's significant risks in particular have been further minimized in net terms.

The overall view of the risk situation of the Group, which is derived from the summary of the risks described on the basis of their impact and probability of occurrence, leads Merck KGaA, Darmstadt, Germany, to the assessment that the risks are not of a nature to threaten the existence of the Group as a going concern, either individually or collectively. The company is confident that it will continue to successfully master the challenges arising from the above risks in the future as well.

In terms of opportunities, Merck KGaA, Darmstadt, Germany, believes that the greatest potential lies in the business-related topics of the operational areas. Thanks in particular to the expansion of our business in Latin America, the Middle East and Africa as well as in Asia, the further intensification and focusing of research and development activities, for instance the collaboration with Pfizer Inc., Bionovis SA, Peer+ B.V. and Seiko Epson, and other activities as part of the "Fit for 2018" transformation and growth program, the Group has launched changes that hold significant opportunities in the medium to long term beyond the underlying forecast period.

The Group is pursuing the possibilities that are arising and takes the expected effects into account in the forecast development of its key performance indicators, namely sales, EBITDA pre one-time items and business free cash flow. Merck KGaA, Darmstadt, Germany, will actively seek opportunities above and beyond these and move ahead with their implementation. In the event that opportunities arise in addition to the forecast developments, or that these occur more quickly than anticipated, this could have correspondingly positive effects on the company's net assets, financial position and results of operations.

REPORT ON EXPECTED DEVELOPMENTS

The key financial performance indicators of the Group, namely sales, EBITDA pre one-time items and business free cash flow, remain unchanged. Based on these steering parameters, the following report provides a forecast for fiscal 2015 of the development of the Group and its three business sectors: Healthcare, Life Science and Performance Materials. Since the internal planning process for 2015 was already based on the new segmentation, the Report on Expected Developments also reflects this new structure. Key changes relate to the composition of the pharmaceutical business – consisting of the previous the Biopharmaceuticals and Consumer Health businesses – under the umbrella of the new Healthcare business sector as well as the renaming of the Life Science business to the Life Science business sector. More detailed information on the segmentation, which took effect on January 1, 2015, can be found under "The Group" (pages 44 – 49) in this Annual Report.

In September 2014, Merck KGaA, Darmstadt, Germany, and the U.S. life science company Sigma-Aldrich entered into a merger agreement according to which the company would acquire Sigma-Aldrich. Sigma-Aldrich shareholders approved the merger with the Group at an extraordinary shareholders' meeting on December 5, 2014. From today's perspective, the acquisition is still expected to close by mid-2015. The successful completion of the transaction is subject to the required antitrust clearances.

The forecast for expected business developments in 2015 will initially be presented without taking the Sigma-Aldrich acquisition into account. Separate forecasts for the effect of the acquisition of Sigma-Aldrich have been prepared for the Group as well as the Life Science business sector of Merck KGaA, Darmstadt, Germany, to which the acquisition relates. They are based on a potential first-time consolidation of Sigma-Aldrich in mid-2015.

FORECAST FOR THE GROUP

GROUP →
FORECAST 2015

€ million	Actual results 2014	Forecast 2015	Key assumptions
Sales	11,291.5	– Slight organic growth – Slight portfolio effect – Moderately positive foreign exchange effect	– **Healthcare:** organic at the 2014 level; significant decline in Rebif® sales, compensated for by growth contribution from Emerging Markets and other key products by sales – **Life Science:** moderate organic growth – **Performance Materials:** slight organic increase compared with 2014; strong portfolio effect due to the inclusion of AZ Electronic Materials for a full fiscal year
EBITDA pre one-time items	3,387.7	Slight increase due to operating business developments and positive foreign exchange effects; at least at the 2014 level	– Targeted intensification of R&D programs and thus higher research and development costs for the Biopharmaceuticals business – Adverse impact due to the absence of Humira® royalty income and declining Rebif® sales for the Biopharmaceuticals business – Low double-digit percentage increase for Performance Materials due to the consolidation of the AZ acquisition for a full year and a moderate increase for Life Science – Low double-digit percentage increase in expenses for Corporate and Other due to the absence of currency hedging gains in 2014 as well as to the expected expenses for the "ONE Global Headquarters" project in 2015.
Business free cash flow	2,605.1	Slight increase	– Expected slight increase in EBITDA pre one-time items – Further improvement in working capital management

Sales

In 2015, a slight organic increase in sales in comparison with 2014 is expected for the Group. Moreover, due to the inclusion of AZ Electronic Materials for a full fiscal year, a slightly positive portfolio effect is expected. Regarding the most important foreign currencies for the Group, in 2015 it is assumed that on an annual average, the U.S. dollar, the Swiss franc and major Asian currencies will appreciate against the euro compared with the previous year. Furthermore, the value of Latin American currencies versus the euro is expected to decline. Overall, a moderately positive foreign exchange effect is expected to result for the Group.

Merck KGaA, Darmstadt, Germany, expects organic sales in the Healthcare business sector in 2015 to remain at the previous year's level. For Rebif®, the Biopharmaceuticals business' top-selling product, the Group assumes a sharp organic sales decline compared with 2014, as a result of continued high competitive pressure in North America and in Europe. However, this decrease in sales is likely to be compensated for by continued growth in Emerging Markets and by growth of the business sector's other key products by sales. Moderate organic sales growth in the Life Science business sector is assumed for 2015, which is likely to be driven especially by the Process Solutions and Lab Solutions business areas. For the Performance Materials business sector slight organic sales growth is expected. Furthermore, a noticeable portfolio effect is expected for this business sector, as 2015 will be the first year that AZ Electronic Materials has been consolidated for a full fiscal year.

EBITDA pre one-time items

Owing to the expected operating development and positive foreign exchange effects, a slight increase in EBITDA pre one-time items, the key financial indicator used to steer operating business, is expected for the Group in 2015 compared with 2014. At least EBITDA pre one-time items should reach the previous year's level.

For the Healthcare business sector a slight decline in EBITDA pre one-time items can be assumed overall. The targeted intensification of the strategically important research and development programs, especially for the development of the anti-PD-L1 antibody and TH-302 at the Biopharmaceuticals business, will lead to higher expenses in 2015. Moreover, declining sales of Rebif® and the absence of Humira® royalty income will adversely affect EBITDA pre one-time items. For the Performance Materials business sector the Group assumes that the full consolidation of AZ Electronic Materials will lead to a low double-digit percentage increase in EBITDA pre one-time items. The Life Science business sector is forecast to see a moderate increase in EBITDA pre one-time items in 2015.

For EBITDA pre one-time items of Corporate and Other, the company expects a low double-digit percentage decline. In 2014, the expense was largely lowered due to positive effects from currency hedging transactions, which are no longer expected in 2015 owing to the significant decline in the value of the euro versus major foreign currencies. In addition, the company expects higher expenses in 2015 for the "ONE Global Headquarters" project at Group headquarters in Darmstadt.

Business free cash flow

Despite planned investments in growth projects, business free cash flow of the Group is forecast to increase slightly in 2015 in line with the forecast development of EBITDA pre one-time items.

Forecast taking into account the successful acquisition of Sigma-Aldrich

In the event of the successful acquisition of Sigma-Aldrich and the first-time consolidation in mid-2015, Merck KGaA, Darmstadt, Germany, expects double-digit growth rates for the sales of both the Group and the Life Science business sector in 2015 as compared with 2014. Very strong growth of EBITDA pre one-time items and business free cash flow is anticipated for the Group, while double-digit growth rates would be expected for the Life Science business sector.

FORECAST FOR THE HEALTHCARE BUSINESS SECTOR

HEALTHCARE →
FORECAST 2015

€ million	Actual figures for 2014[1]	Forecast for 2015	Key assumptions
Sales	6,549.4	– Organic at the previous year's level	– Sales growth in Emerging Markets and of other key products by sales will compensate for the significant organic decline in sales of Rebif® – Strong organic growth in the Consumer Health business
EBITDA pre one-time items	2,000.3	– Slight decline	– Increasing research and development costs due to the prioritization and intensification of the Biopharmaceuticals business research and development projects, especially in connection with the further development of the anti-PD-L1 antibody within the scope of the strategic alliance with Pfizer; offset to a significant extent by the upfront payment from Pfizer attributable to 2015 – Effect on earnings due to the expected decline in Rebif® sales – Absence of Humira® royalty income – Positive foreign exchange effects
Business free cash flow	1,701.2	– Slight decline	– Slight decline in EBITDA pre one-time items – Higher investments in property, plant and equipment within the scope of current strategic growth projects

[1] Information relating to the past for the Healthcare business sector refers to the former Biopharmaceuticals and Consumer Health businesses, which have been part of the newly created Healthcare business sector since January 1, 2015.

Sales

The Group expects organic sales of the Healthcare business sector in 2015 to remain at the 2014 level. For Rebif®, the top-selling product in Healthcare, the company assumes a sharp organic sales drop as a result of high competitive pressure in the United States and also in Europe. However, it is expected that this decline in sales will be compensated for by continued growth in Emerging Markets and by growth of the other key products. The Consumer Health business, for which the Group expects to see strong organic sales growth, will also help to offset the decline.

EBITDA pre one-time items

In 2014, Merck KGaA, Darmstadt, Germany, already resolutely prioritized its research and development activities in the Healthcare business sector and discontinued various projects. For 2015, the Group will drive strategically important projects forward, which will lead to increasing research and development costs. An important part of this will be the further development of the hypoxia-activated prodrug TH-302 and particularly the anti-PD-L1 antibody within the scope of the strategic alliance with Pfizer. The expenses incurred in this connection are likely to be offset to a large extent by the share of the upfront payment from Pfizer attributable to 2015. These developments, as well as the absence of royalty income for Humira® and the impact of the expected significant drop in sales of Rebif® on earnings, are likely to lead to a slight decline in EBITDA pre one-time items.

Business free cash flow

In particular, the Biopharmaceuticals business will be increasingly investing in the modernization and expansion as well as the new construction of production facilities in order to meet the increasing demand for the company's pharmaceuticals. Owing to these investment activities and the slight decline in EBITDA pre one-time items, the Group expects a slight decrease in business cash flow for the Healthcare business sector in 2015.

FORECAST FOR THE LIFE SCIENCE BUSINESS SECTOR

LIFE SCIENCE →
FORECAST 2015

€ million	Actual figures for 2014	Forecast for 2015	Key assumptions
Sales	2,682.5	– Moderate organic growth	– Growth will be driven especially by the Process Solutions and Lab Solutions business areas, as well as the Emerging Markets
EBITDA pre one-time items	658.6	– Moderate increase	– In line with the development of sales
Business free cash flow	419.0	– Strong increase	– Improvement in EBITDA pre one-time items – Significant reduction in inventories

Sales

Merck KGaA, Darmstadt, Germany, expects that continued increasing investments in research and development activities in the pharmaceutical and biotech industries will also have a positive impact on the Process Solutions business area in 2015. Process Solutions supplies consumables and services for pharmaceutical and biotech companies. It is anticipated that the Lab Solutions business area will benefit from the expected slight growth of the global laboratory product market. Development of the Bioscience business area is expected to remain subdued. It is therefore likely that the Process Solutions and Lab Solutions business areas will be the strongest drivers of growth in the Life Science business sector in 2015.

Overall, the Group expects moderate organic sales growth in the Life Science business sector in 2015 compared with the previous year. From a geographic perspective, a sharp increase particularly in Emerging Markets is anticipated in 2015.

EBITDA pre one-time items

In line with the forecast organic sales development and continuous efficiency improvements, EBITDA pre one-time items is expected to also increase moderately.

Business free cash flow

The Group expects a strong increase in the business free cash flow of the Life Science business sector. This increase will stem not only from the improvement in EBITDA pre one-time items, but also a significant reduction in inventories.

Forecast taking into account the successful acquisition of Sigma-Aldrich

In the event of the successful acquisition of Sigma-Aldrich and first-time consolidation in mid-2015, the company expects double-digit growth rates in the Life Science business sector for sales, EBITDA pre one-time items and business free cash flow in 2015 compared with 2014.

FORECAST FOR THE PERFORMANCE MATERIALS BUSINESS SECTOR

PERFORMANCE MATERIALS →
FORECAST 2015

€ million	Actual figures for 2014	Forecast for 2015	Key assumptions
Sales	2,059.6	– Slight organic increase – Strong portfolio effect	– Continued good volume increase in liquid crystals, amid the customary price decline for established products – Strong portfolio effect due to the inclusion of AZ Electronic Materials for a full fiscal year
EBITDA pre one-time items	894.8	– Low double-digit percentage increase	– Strong portfolio effect – Scheduled realization of synergies from the acquisition of AZ Electronic Materials – Positive foreign exchange effects
Business free cash flow	699.6	– Low double-digit percentage increase	– Increase in EBITDA pre one-time items – Considerable investments in future technologies

Sales

Merck KGaA, Darmstadt, Germany, expects low double-digit percentage growth in the Performance Materials business sector in 2015 compared with 2014. Slight organic sales growth is anticipated, supplemented by a strong portfolio effect due to the inclusion of AZ Electronic Materials for a full fiscal year. In the Liquid Crystals business, the Group assumes continued good volume growth amid the customary price decline for established products in this industry. This forecast is in line with the expectations of Display Search, a market research firm for the display sector, which continue to anticipate a strong increase in the surface area of global flat-panel displays produced in 2015.

The Group does not expect any significant new technologies or product launches in the liquid crystals field in 2015. The company anticipates moderate organic sales growth in Pigments & Functional Materials and Integrated Circuit Materials overall.

EBITDA pre one-time items

For 2015, the Group forecasts a low double-digit percentage increase in EBITDA pre one-time items compared with 2014, resulting from a strong portfolio effect, the planned realization of synergies from the acquisition of AZ Electronic Materials, and positive foreign exchange effects. The company is planning to maintain the profitability of liquid crystals at a high level.

Business free cash flow

In 2015, the Group expects a low double-digit percentage improvement in business free cash flow compared with 2014 as a result of the increase in EBITDA pre one-time items. This increase takes account of the fact that the company will make considerable investments in property, plant and equipment for future technologies in 2015.

SUMMARY

Slight organic sales growth of the Group is assumed for 2015, which is likely to be driven by the Life Science business sector in particular. In addition to this, the company expects a slight portfolio effect due to the first-time consolidation of AZ Electronic Materials for a full fiscal year.

Together with positive foreign exchange effects, the business development of the Group is likely to lead to a slight increase in EBITDA pre one-time items. However, it is expected that EBITDA pre one-time items will at least reach the previous year's level. A slight decline in EBITDA pre one-time items in the Healthcare business sector due to targeted investments in strategic research and development projects, a significant decline in sales of Rebif® and the absence of royalty income for Humira® should at least be offset by the other two business sectors. Low double-digit percentage growth of EBITDA pre one-time items for the Performance Materials business sector is likely, while a moderate increase is expected for the Life Science business sector. As a consequence of this development and despite investments in strategic growth projects, the Group anticipates a slight increase in business free cash flow in 2015 compared with 2014.

In the event of the successful acquisition of Sigma-Aldrich in mid-2015, Merck KGaA, Darmstadt, Germany, expects double-digit sales growth for the Group and the Life Science business sector in 2015, as compared with 2014. Very strong growth of EBITDA pre one-time items and business free cash flow for the Group is anticipated, while double-digit growth rates are expected for the Life Science business sector.

REPORT IN ACCORDANCE WITH SECTION 315 (4) OF THE GERMAN COMMERCIAL CODE (HGB)

The following information is provided in accordance with Section 315 (4) of the German Commercial Code and the explanatory report pursuant to Section 176 (1) sentence 1 of the German Stock Corporation Act (AktG).

As of the balance sheet date, the company's subscribed capital is divided into 129,242,251 no-par value bearer shares plus one registered share. Each share therefore corresponds to € 1.30 of the share capital. The holder of the registered share is E. Merck Beteiligungen KG, Darmstadt, Germany. It is entitled and obliged to appoint one-third of the members of the Supervisory Board representing the limited liability shareholders. If the holder of the registered share is a general partner, he or she has no such right of appointment. The transfer of the registered share requires the company's approval. The approval is granted at the sole discretion of the personally liable general partner with an equity interest, namely E. Merck KG, Darmstadt, Germany.

Pursuant to the information on voting rights submitted to us in accordance with the German Securities Trading Act (WpHG), on December 31, 2014 no shareholders owned direct or indirect investments exceeding more than 10 % of the voting rights.

According to the Articles of Association of Merck KGaA, Darmstadt, Germany, the general partners not holding an equity interest who form the Executive Board are admitted by E. Merck KG, Darmstadt, Germany, with the consent of a simple majority of the other general partners. A person may only be a general partner not holding an equity interest if he or she is also a general partner of E. Merck KG, Darmstadt, Germany. In addition, at the proposal of E. Merck KG, Darmstadt, Germany, and with the approval of all general partners not holding an equity interest, further persons who are not general partners not holding an equity interest may be appointed to the Executive Board.

The Articles of Association can be amended by a resolution by the Annual Meeting that requires the approval of the general partners. The resolutions of the General Meeting are, notwithstanding any statutory provisions to the contrary, adopted by a simple majority of the votes cast. Where the law requires a capital majority in addition to the voting majority, resolutions are adopted by a simple majority of the share capital represented in the vote. The Articles of Association of the company specify the authorized share capital. The Executive Board is authorized, with the approval of the Supervisory Board and of E. Merck KG, Darmstadt, Germany, to increase the share capital on one or several occasions until April 26, 2018 by up to a total of € 56,521,124.19 by issuing new shares against cash and / or contributions in kind (Authorized Capital). The Executive Board is authorized to exclude, with the approval of the Supervisory Board, the statutory subscription right of the limited liability shareholders in the case of capital increases against cash contributions if the issue price of the new shares is not significantly lower than the stock exchange price of already listed shares carrying the same rights, as defined in section 203 (1) and (2) and section 186 (3) sentence 4 of the German Stock Corporation Act (AktG), at the time when the Executive Board finally fixes the issue price, and if the proportion of the share capital represented by the new shares for which the subscription right is excluded does not exceed 10 % of the share capital available at the time of the resolution of the Annual General Meeting or – if this amount is lower – of the share capital available at the time of exercising this authorization. This upper limit shall be reduced by the prorated amount of shares that are sold during the term of the authorized capital under exclusion of shareholders' subscription rights pursuant to section 71 (1) no. 8 sentence 5 and section 186 (3) sentence 4 of the German Stock Corporation Act, as well as shares that must be issued to redeem option or convertible bonds, as long as the bonds have been issued during the term of this authorization under exclusion of subscription rights. In addition, with the approval of the Supervisory Board, the subscription right of the shareholders can be excluded in order to enable E. Merck KG, Darmstadt, Germany, to exercise its right pursuant to Article 32 (3) of the Articles of Association to participate in a capital increase by issuing shares or freely transferable share subscription rights and to enable E. Merck KG, Darmstadt, Germany, to exercise its right pursuant to Article 33 of the Articles of Association to convert its equity interest into share capital. Moreover, with the approval of the Supervisory Board, the subscription right of the shareholders can be excluded as far as this is necessary, in order to grant subscription rights for new shares to holders of warrants and convertible bonds issued by the company or its subsidiaries, to the extent to which they would be entitled after exercising their option and conversion rights or fulfilling their option and conversion obligations. Lastly, with the approval of the Supervisory Board, the subscription right of the shareholders can be excluded in order to exclude fractional amounts from the subscription right.

The Articles of Association also encompass contingent capital. The share capital is contingently increased by up to € 66,406,298.40 divided into 51,081,768 shares (Contingent Capital I). The contingent capital increase serves to grant exchange rights to E. Merck KG, Darmstadt, Germany, in accordance with Article 33 of the Articles of Association to enable the conversion of its equity interest. The shares carry dividend rights from the beginning of

the fiscal year following the year in which the conversion option is exercised.

Moreover, the share capital is contingently increased by up to € 16,801,491.20 composed of up to 12,924,224 no-par value bearer shares (Contingent Capital II). This increase in contingent capital is only to be implemented insofar as the bearers or creditors of option or conversion rights or the conversion obligations on warrant bonds, option participation certificates, option participation bonds, convertible bonds, convertible participation certificates or convertible participation bonds issued against contributions that are issued or guaranteed by the company or a subordinate Group company on the basis of the authorization resolution of the Annual General Meeting of May 9, 2014 to May 8, 2019, utilize their option or conversion rights or, to fulfill their conversion obligation insofar as they are obliged to fulfill their conversion obligation, or insofar as the company exercises an option, wholly or in part, of granting shares in the company instead of paying the sum of money due and to the extent that in each case a cash settlement is not granted, or own shares or other forms of fulfillment are used. Each issue of new shares shall take place at the determined option or conversion price, pursuant to the aforementioned authorization resolution. The new shares participate in the profit from the beginning of the fiscal year in which they are created; insofar as this is legally permissible, the Executive Board may, with the approval of the Supervisory Board, and in deviation from Section 60 (2) AktG, stipulate that the new shares also participate in the profit for a past fiscal year. The Executive Board is authorized, with the approval of the Supervisory Board and of E. Merck KG, Darmstadt, Germany, to stipulate the further details of the implementation of the increase in contingent capital.

The company is not authorized to acquire its own shares.

The company has not entered into any material agreements subject to a change of control pursuant to a takeover offer nor has it entered into any compensation agreements with the members of the Executive Board or employees in the event of a takeover offer.

SUBSEQUENT EVENTS

Subsequent to the balance sheet date, no events of special importance occurred that could have a material impact on the financial position and results of operations of the Group.