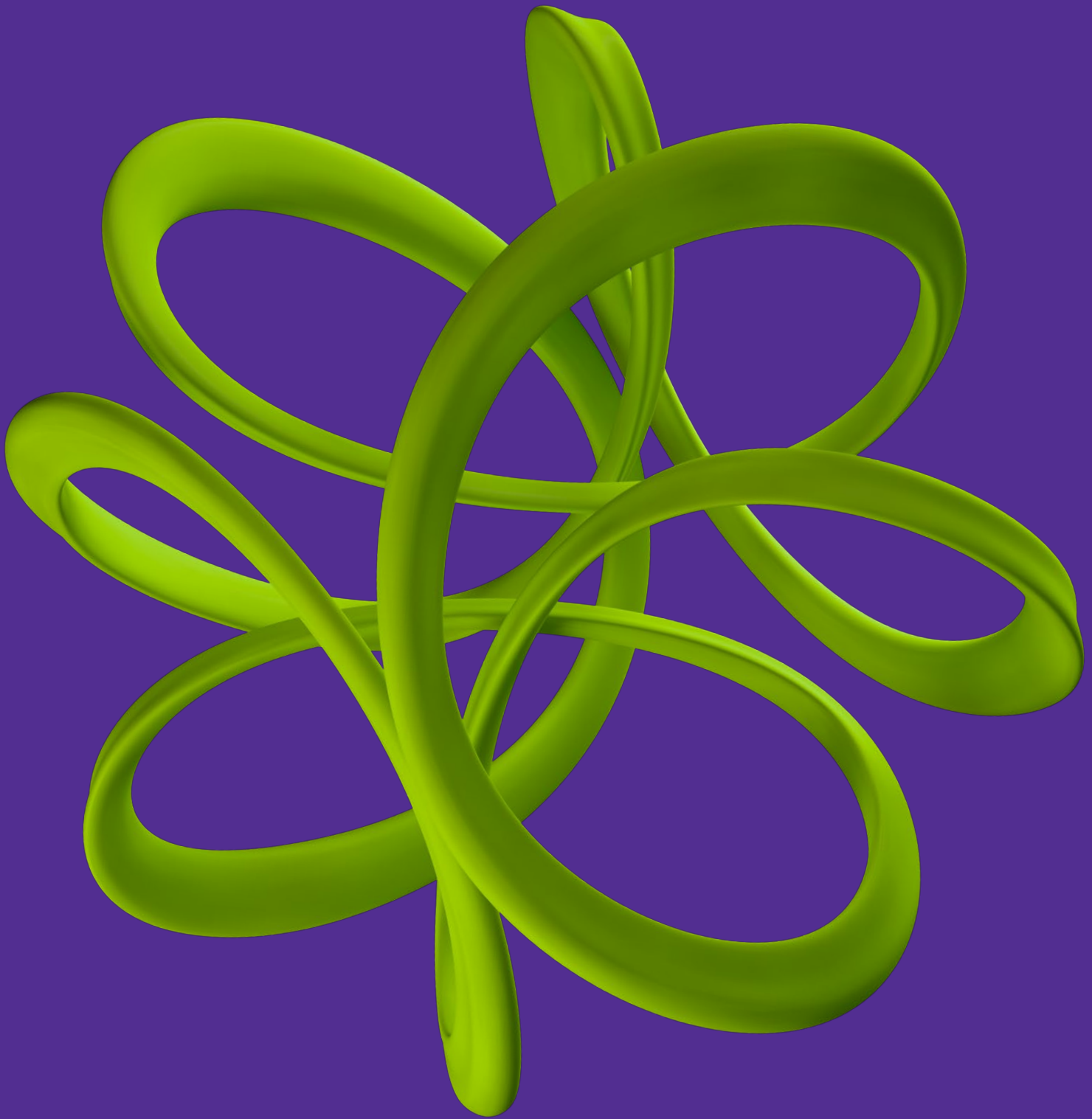


MERCK



QUARTERLY STATEMENT
3rd QUARTER
2020

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This document is a quarterly statement pursuant to section 53 of the Exchange Rules for the Frankfurt Stock Exchange. This quarterly statement contains certain financial indicators such as operating result (EBIT), EBITDA, EBITDA pre, business free cash flow (BFCF), free cash flow, net financial debt and earnings per share pre, which are not defined by International Financial Reporting Standards (IFRS). These financial indicators should not be taken into account in order to assess the performance of Merck in isolation or used as an alternative to the financial indicators presented in the consolidated financial statements and determined in accordance with IFRS.

The figures presented in this quarterly statement have been rounded. This may lead to individual values not adding up to the totals presented.

The Annual Report for 2019 has been optimized for mobile devices and is available on the Web at ar.merckgroup.com/2019/.

Merck – In brief

MERCK GROUP

Key figures

| € million | Q3 2020 | Q3 2019 | Change | Jan.–Sept. 2020 | Jan.–Sept. 2019 | Change |
|---|---------|---------|----------|-----------------|-----------------|--------|
| Net sales | 4,447 | 4,054 | 9.7% | 12,936 | 11,771 | 9.9% |
| Operating result (EBIT) ¹ | 1,167 | 608 | 91.9% | 2,374 | 1,605 | 47.9% |
| Margin (% of net sales) ¹ | 26.2% | 15.0% | | 18.3% | 13.6% | |
| EBITDA ¹ | 1,619 | 1,072 | 51.0% | 3,815 | 2,999 | 27.2% |
| Margin (% of net sales) ¹ | 36.4% | 26.5% | | 29.5% | 25.5% | |
| EBITDA pre ¹ | 1,701 | 1,111 | 53.0% | 3,956 | 3,179 | 24.4% |
| Margin (% of net sales) ¹ | 38.2% | 27.4% | | 30.6% | 27.0% | |
| Profit after tax | 806 | 342 | > 100.0% | 1,553 | 1,002 | 55.0% |
| Earnings per share (€) | 1.85 | 0.79 | > 100.0% | 3.57 | 2.31 | 54.5% |
| Earnings per share pre (€) ¹ | 2.34 | 1.35 | 73.3% | 5.14 | 4.02 | 27.9% |
| Business free cash flow ¹ | 1,514 | 731 | > 100.0% | 2,989 | 1,977 | 51.1% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

MERCK GROUP

Net sales by quarter



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EBITDA pre¹ by quarter



¹ Not defined by International Financial Reporting Standards (IFRSs).

Developments within the Group and R&D

Merck

We are Merck, a vibrant science and technology company. Science is at the heart of everything we do. It drives the discoveries we make and the technologies we create. Our work makes a positive difference to millions of people's lives every day.

In Healthcare, we discover unique ways to treat the most challenging diseases such as multiple sclerosis and cancer. Our Life Science experts empower scientists by developing tools and solutions that help deliver breakthroughs more quickly. And in Performance Materials, we develop science that sits inside technologies and changes the way we access and display information.

Everything we do is fueled by a belief in science and technology as a force for good. A belief that has driven our work since 1668, and will continue to inspire us to find more joyful and sustainable ways to live. We are curious minds dedicated to human progress.

We hold the global rights to the Merck name and brand. The only exceptions are Canada and the United States. In these countries, we operate as EMD Serono in the Biopharma business, as MilliporeSigma in the Life Science business and as EMD Performance Materials in the high-tech materials business.

We had 58,077 employees worldwide on September 30, 2020, compared with 54,042 on September 30, 2019.

This section of the present quarterly statement summarizes the highlights of the third quarter of 2020 at Merck including those in research in development. A detailed description of Merck and its business sectors can be found in the Annual Report for 2019 ([ar.merckgroup.com/2019](https://www.merckgroup.com/2019)).

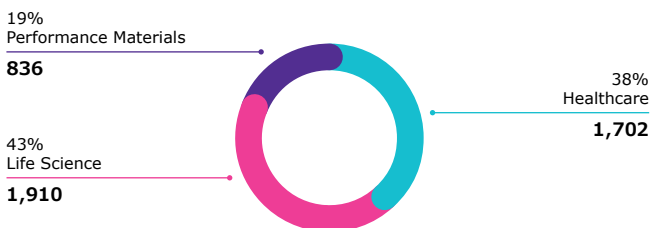
Changes in the Executive Board of Merck

On September 28 we announced that Stefan Oschmann will hand over the Chair of the Executive Board of Merck to Belén Garijo in 2021. The Board of Partners of E. Merck KG has appointed Garijo, currently Vice Chair of the Executive Board and Deputy CEO of Merck as well as CEO Healthcare, as new Chair of the Executive Board and CEO of Merck effective May 1, 2021. In addition, we announced that Peter Guenter will join the Executive Board of Merck by January 1, 2021 at the latest. Based in Darmstadt, Germany, he will have Board responsibility for the Healthcare business sector. Matthias Heinzel will join the Executive Board of Merck on April 1, 2021 at the latest and will have Board responsibility for the Life Science business sector. He will be based in Burlington, Massachusetts, USA, and Darmstadt, Germany.

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Net sales by business sector – Q3 2020

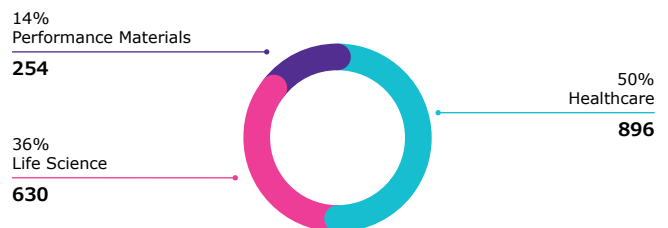
€ million / in % of net sales



MERCK GROUP

EBITDA pre¹ by business sector² – Q3 2020

€ million / in %



¹ Not defined by International Financial Reporting Standards (IFRSs).

² Not presented: Decline in Group EBITDA pre by € -80 million due to Corporate and Other.

Healthcare

- We are here for people at every step, helping to create, improve and prolong life. Patients are at the center of our work and with every advance, we are improving lives. This single ambition drives everything we do.
- In view of the ongoing challenges posed by the Covid-19 pandemic, we are continuously making every effort to proactively handle the situation and minimize the impact of the pandemic on the supply of our medicines locally and globally through three main levers: the thorough implementation of our business continuity plans across our network; the active management of our stocks; and the assessment of alternative transportation routes to reach our customers and patients.

Neurology and Immunology

- At MSVirtual2020: 8th Joint ACTRIMS-ECTRIMS Meeting that took place virtually from September 11-13, we presented a total of 54 abstracts across our multiple sclerosis (MS) portfolio, including new efficacy and real-world safety data on Mavenclad® (cladribine tablets) and new safety data for Rebif® (interferon beta-1a). Much of our data provided insights on how Mavenclad® and Rebif® affect the risk of respiratory viral infections and Covid-19 outcomes in MS patients, which will help support clinicians as they make treatment decisions for their patients living with MS. Among key Mavenclad® data was new efficacy data from the Phase IV MAGNIFY-MS study on Mavenclad® in patients with relapsing multiple sclerosis (RMS) showing a rapid onset of action from end of month 1 supported by changes in combined unique active magnetic resonance imaging lesions,

further substantiating the ability of Mavenclad® to deliver early efficacy in patients with RMS. In addition, data was presented demonstrating investigational evobrutinib is the first and only Bruton's tyrosine kinase inhibitor to demonstrate high and sustained efficacy through 108 weeks in clinical studies. The global Phase III clinical development program evaluating evobrutinib in RMS includes two pivotal studies, EVOLUTION RMS 1 and 2.

- On September 10, we announced positive top-line results from a Phase II study of sonelokinab (M1095), an investigational anti-IL-17 A/F Nanobody®, which neutralizes both IL-17A and IL-17F, in patients with moderate to severe chronic plaque-type psoriasis. The Phase II study was facilitated by Avillion as part of an innovative co-development model announced in 2017. While the Phase II results are very encouraging, we have decided to outlicense sonelokinab to a new partner, who plans to initiate Phase III development in 2021. This decision is in line with our focus on rigorous pipeline prioritization.
- In the third quarter, we continued our support in the fight against the Covid-19 pandemic. Following our announcement in June that the FDA had cleared our investigational new drug application for M5049 for the treatment of patients with Covid-19 pneumonia, the first patient was dosed at the end of July. This Phase II study complements our existing response to the Covid-19 pandemic, which also includes in-kind contributions, product donations, resources, and expertise in consortia and partnerships aimed at fighting the pandemic. Our product donations include a commitment to donate up to 290,000 units of our MS treatment Rebif® to the World Health Organization. In August, we also announced a collaboration with the U.S. National Institute

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Business free cash flow¹ by business sector² – Q3 2020

€ million / in %



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Employees by region as of September 31, 2020

Number / in %



¹ Not defined by International Financial Reporting Standards (IFRSs).

² Not presented: Decline in Group business free cash flow by € -94 million due to Corporate and Other.

of Allergy and Infectious Diseases (NIAID), part of the U.S. National Institutes of Health, by contributing 3,000 units of Rebif[®] for the Adaptive Covid-19 Treatment Trial 3 (ACTT 3), which is enrolling hospitalized adults with Covid-19 in the United States and in other countries. The NIAID-led study is evaluating treatment with Rebif[®] in combination with remdesivir compared with remdesivir alone in over 1,000 hospitalized adults diagnosed with Covid-19 and will evaluate time to recovery in the combination therapy group relative to the remdesivir-only group.

Oncology

- On July 31, we announced with our alliance partner Pfizer that the UK's National Institute for Health and Care Excellence (NICE) recommended Bavencio[®] (avelumab) in combination with axitinib for first-line treatment of adult patients with advanced renal cell carcinoma (RCC) for use within the scope of the Cancer Drugs Fund in England and Wales. This is the first combination of an immunotherapy with a targeted antiangiogenic therapy to be recommended by NICE as a first-line treatment option for advanced RCC in England and Wales.
- On August 25, the U.S. Food and Drug Administration (FDA) accepted and granted Priority Review of our filing of the New Drug Application for once-daily, orally dosed tepotinib for the treatment of patients with metastatic non-small cell lung cancer (NSCLC) with METex14 skipping alterations. Tepotinib is being reviewed by the FDA under its Real-Time Oncology Review (RTOR) pilot program. Tepotinib was granted Breakthrough Therapy Designation by the FDA in September 2019.
- On September 18, The New England Journal of Medicine published online the pivotal Phase III JAVELIN Bladder 100 study results for Bavencio[®]. These results were published simultaneously with additional analyses being presented at the European Society for Medical Oncology (ESMO) Virtual Congress 2020, which took place from September 19 to September 21, 2020. They describe the efficacy of Bavencio[®] as a first-line maintenance treatment across various subgroups of patients with locally advanced or metastatic urothelial carcinoma (UC) and highlight exploratory biomarkers as well as patient-reported outcomes (PROs).

ESMO 2020

- Merck had a significant presence at the ESMO20 Virtual Scientific Program. Data from more than 30 abstracts across multiple tumor types highlighted our biology-driven approach with breakthrough innovations and significant advances in cancer care across our oncology assets. Potential first-in-class/best-in-class early- and late-stage pipeline compounds, and investigational uses of our approved medicines were featured at the meeting.
 - Data from the Phase III JAVELIN Bladder 100 study (Presentations #6990; 704MO; 745P) for Bavencio[®] in the first-line maintenance treatment of patients with locally advanced or metastatic UC vs best supportive care were presented. In addition, the primary results of the Phase III JAVELIN Head and Neck 100 study (Presentation #9110) were presented.
 - For tepotinib, results from the ongoing primary analysis of the Phase II VISION study and PROs of health-related quality of life for patients with METex14 skipping NSCLC were shared at the meeting (Presentations #1283P; 1286P; 134&P).
 - For bintrafusp alfa, our investigational bifunctional fusion protein targeting TGF- β and PD-L1, two long-term follow-up studies assessing efficacy and safety from the INTR@PID clinical trial program were presented. These data continue to highlight the value of this first-in-class bifunctional supposed mode of action in NSCLC and biliary tract cancer (Poster #1272P; Poster #73P), and additionally, the potential to offer new ways to treat difficult-to-treat cancers beyond PD-1/PD-L1 in the future.
 - For Erbitux[®] (cetuximab), several studies demonstrated its steady role across the continuum of care in metastatic colorectal cancer (mCRC), and as the backbone of treatment of squamous cell carcinoma of the head and neck (SCCHN). And a number of investigator-sponsored studies, also in combination with Bavencio[®] (avelumab), demonstrated the role of Erbitux[®] as a promising combination partner. These included an oral presentation investigating avelumab plus cetuximab in pre-treated RAS wild type metastatic colorectal cancer patients as rechallenge strategy: the Phase II CAVE (cetuximab-avelumab) mCRC study (Presentation #3970).

Fertility

- The Pergoveris® Pen, a convenient and ready-to-use fertility combination treatment option for women with severe follicle-stimulating hormone and luteinizing hormone deficiency, had been successfully introduced in several countries in Europe, Asia-Pacific and Latin America by the end of 2019. The milestones continued in 2020 with launches in Slovakia, Indonesia and Panama and marketing authorizations recently granted in the Dominican Republic and Peru.
- Following the successful launch of Merck Digital Congress Center in March 2020 and great success at the European Society of Human Reproduction and Embryology virtual annual meeting (ESHRE2020), we have launched 40 localized platforms ready to host global, regional and local events. With this new set-up ready to go live, we already have a number of exciting events scheduled with 17 global and more than 100 local events planned before the end of this year.
- In the third quarter, Merck continued to support efforts to save the northern white rhinoceros from extinction. Merck is a partner of the BioRescue Project of the Leibniz Institute for Zoo and Wildlife Research in the Forschungsverbund Berlin e. V., donating technology and financial support, as well as sharing expertise and experience in fertility to their work.

General Medicine and Endocrinology

- Our new formulation of Euthyrox® (levothyroxine) for the treatment of hypothyroidism received further regulatory approvals in the third quarter, resulting in a total of 53 countries in which it has been approved.
- Glucophage®, containing the active ingredient metformin, is now approved in 61 countries for prediabetes when lifestyle intervention is not enough to control the condition.
- We continued to pursue selected patient solutions that go beyond the pill in areas such as medication adherence (via our partner Medisafe) and are seeing strong and consistent adherence rates higher than 80%. We are also exploring partnerships for offering digital solutions to support pre-diabetic patient lifestyle changes. In China, we are promoting disease awareness via our partnership with Ali Health.
- In the third quarter, the Chinese government continued the rollout of Volume-Based Procurement (VBP), with round 3 listing 56 drugs including metformin (both extended- and immediate-release). The bidding process for access to part of the Chinese public hospital market took place on August 20. Merck followed its carefully crafted bidding strategy yet was not among the winners.
- In the third quarter, the rollout of Concor® AM continued in new countries, taking the total number to 57.
- In the third quarter, the number of new patients using the Easypod® electromechanical injection device for treatment with Saizen® (somatropin) continued to grow, bringing the total number of patients enrolled on Easypod® Connect to 23,228. Saizen® is our main endocrinology product and is indicated for the treatment of growth hormone deficiency in children and adults.
- We continued the rollout of Aluetta®, our new pen for the injection of Saizen®, taking the total number of countries where it is currently available to 23.

Life Science

- Our purpose is to solve the toughest challenges in the life science industry in collaboration with the global scientific community. We are a leading worldwide supplier of tools, high-grade chemicals and equipment for academic labs, biotech and biopharmaceutical manufacturers, as well as the industrial sector. As determined by sales, our Life Science business sector has achieved a top-three ranking in the global life science industry.
- In the third quarter, we continued to focus on meeting customer needs by launching some 5,600 products across the Research Solutions, Process Solutions and Applied Solutions business units, including those launched through our “faucet program” for antibodies, reference materials, chemicals and nanomaterials.
- In July, in collaboration with Massachusetts Institute of Technology’s (MIT) Center for Collective Intelligence and Community Biotechnology Initiative, we released a new report detailing potential paths to solutions to combat Covid-19 and future pandemics. The report summarizes the results of a three-week collective intelligence exercise conducted with more than 180 science, healthcare and policy experts from around the world, which generated suggestions pertaining to transmission control, diagnostics and monitoring, and accelerating access to vaccines and therapies, among other technical topics.
- Also in July, we announced that our DOZN™ green chemistry tool won Environment + Energy Leader’s Top Project of the Year award. The award recognizes excellence in environmental, sustainability and energy management. With more than 300 active, registered users, the DOZN™ system helps customers make data-driven decisions to increase environmental sustainability by evaluating the relative

greenness of chemicals and chemical processes against the 12 Principles of Green Chemistry.

- Additionally, we received a Supplementary Statement of Objections from the European Commission in the ongoing proceedings concerning the Sigma-Aldrich acquisition, which was completed in 2015. The SSO states that the allegations previously made against Merck will be dropped. However, Sigma-Aldrich will be the object of ongoing proceedings.
- In September, we announced our donation of research instruments and materials worth € 74,000 to support the Eijkman Institute for Molecular Biology's development of a Covid-19 vaccine. Located in the Indonesia, the Eijkman Institute will use the donation to expedite their research, advancing their production of the vaccine based on a local virus strain. It is estimated that the Covid-19 vaccine will be made available for further processes, including clinical trials, in Indonesia by early 2021.

Research Solutions

- In September, we launched the MILLIPLEX® SARS-CoV-2 antigen panels for IgG, IgA and IgM. These panels utilize multiplexing technology to simultaneously detect the presence of different antibody classes against four different SARS-CoV-2 protein antigens in a single reaction from human serum or plasma samples. Developed in close collaboration with academic researchers to deliver excellent sensitivity and specificity, the panels are invaluable research tools for Covid-19 serologicals, epidemiological studies and vaccine development.

Process Solutions

- In July, we acquired RESOLUTION Spectra Systems, a Meylan, France-based leader in bioprocess analytical monitoring. This enhanced our advanced bioprocess portfolio with Raman spectroscopy analysis technology and GMP-ready instrumentation and software to analyze and manage generated data, supporting our Bio4C™ Software Suite as the latest component of our expanding BioContinuum™ Platform.
- Also in July, we announced that VAR2 Pharmaceuticals, a biotechnology company based in Copenhagen, Denmark, was selected as the European winner of our 2020 Advance Biotech Grant Program. The company was chosen for its development of a promising novel cancer treatment using a malaria protein, which we will support through products and consultation as part of the grant award.
- Additionally, we opened our M Lab™ Collaboration Center in Shanghai, which is the largest of our nine centers

worldwide. Located in a hub for biomedical sciences and the research community in China, this new M Lab™ Collaboration Center offers customizable solutions to help advance drug development and will host a new BioReliance® End-to-End Solutions GMP manufacturing facility offering contract development manufacturing organization services to customers in China and Asia-Pacific.

- In September, we announced a € 59 million expansion of our facility near Madison, Wisconsin (USA) that supports high-potent active pharmaceutical ingredient (HPAPI) and antibody-drug conjugate manufacturing. This investment allows large-scale manufacturing of increasingly potent compounds for therapies with the potential to treat cancer. Expected to be completed by mid-2022, it also creates one of the largest dedicated HPAPI manufacturing facilities specially designed to handle single-digit nanogram containment.
- Also in September, we announced the expansion of our biosafety testing laboratory services, including our BioReliance® viral clearance offering, in Singapore. This increased viral capacity at our Singapore lab by 50% to meet demand from biopharmaceutical and cell and gene therapy developers and manufacturers in Asia-Pacific, allowing customers to continue developing life-saving medicines amid the Covid-19 pandemic.
- Further, we announced the expansion of our facility in Jaffrey, New Hampshire (USA), adding 160 jobs to the filtration plant. The expansion will allow the site to operate on a 24-hour cycle by the end of the year, delivering on increased demand for filtration devices and membranes driven in part by Covid-19.
- In September, we announced Combined Therapeutics as the North America winner of our 2020 Advance Biotech Grant Program. We will support the early stage startup, which spun out of MIT, through products and consultation that they need to bring to market their next-generation virotherapies targeted with nucleic acids, which aim to treat liver cancer.

Applied Solutions

- In July, we announced an investment of € 18 million to build a new laboratory facility in Buchs, Switzerland. The expansion will support our reference materials business, allowing increased support of researchers and testing labs in pharmaceutical, environmental and food and beverage analysis. Completion of the expansion is scheduled for December 2021, adding modern, flexible space to one of our most important research and development centers.

Performance Materials

- Performance Materials is advancing digital living. Our main focus is on the electronics market with our materials and solutions changing the way we access, store, process, and display information. In addition, our highly specialized, science-driven Surface Solutions business makes life more colorful.
- The business sector consists of three business units: Semiconductor Solutions, Display Solutions and Surface Solutions.
- We are well on track with the execution of our five-year Bright Future transformation program announced in 2018, focusing on adapting to new market realities and customer requirements. With the completion of the Intermolecular and Versum Materials acquisitions, we achieved two major milestones to transform Performance Materials into a strong solutions provider and leading player in the electronic materials market. After closing the acquisition of Versum Materials on October 7, 2019, our newly integrated organization went live on June 1, 2020.
- On September 21, 2020 a new Research Center for electronic applications was officially opened at our global headquarters in Darmstadt, Germany. With an investment of € 50 million, Performance Materials is scaling up its research & development capabilities to further expand the company's position as leading supplier to the electronics industry. The new building will be dedicated to research & development activities for next-generation display and semiconductor materials.

Semiconductor Solutions

- Semiconductor Solutions is the largest business unit within Performance Materials. It consists of Delivery Systems & Services as well as Semiconductor Materials. Our Semiconductor Materials unit supplies products for every major production step in the wafer manufacturing process – including doping, lithography, patterning, deposition, planarization, etching, and cleaning. Specialty cleans, photoresists and conductive pastes for semiconductor packaging round off the portfolio.
- In Semiconductor Materials, our Thin Film Solutions business achieved significant progress in advancing critical PORs (Process of Record) for new organosilanes for conformal high-performance atomic layer deposition (ALD) and progressed our plasma-enhanced chemical vapor deposition (PECVD) for low dielectric constant applications. We also

continue to make progress in developing high-purity metal-containing precursor offerings enabled by new engineered container delivery systems. We continue to focus on developing new spin-on dielectric formulations for processes with improved dielectric characteristics for faster and better processors, servers and data storage density.

- To better support our customers, in late August, we dedicated our newest expanded quality lab with significant new investments in advanced analytical and container capability in Kaohsiung, Taiwan to continually drive quality enhancement. The facility is in close proximity to many of our Taiwanese customers and aims to provide local collaboration support and faster time to market.
- Our Patterning Solutions products progressed well in the third quarter, led by continued high factory utilizations in memory and foundry segments. We are also seeing growing interest in our EUV Rinse products and 3D-NAND photoresists in Korea. Demand from our 5G and IoT customers remains steady. Directed Self Assembly (DSA) has been presented as a solution to challenges in advanced lithography for memory and logic and we are seeing increased interest from our leading customers. Challenges in etching and residue removal at advance nodes require the further commitment of our team.
- Our Planarization business continues to make significant progress in new product development in memory and logic across both slurry and cleans products. To better support our customers, in late June, we inaugurated a new R&D center in Korea to develop next-generation chemical mechanical planarization (CMP) materials. Since the opening, the team has been able to support several demos with key Korean customers, which is critical to enable rapid local collaboration.
- Our Specialty Gases business is experiencing a high demand for our broad portfolio offering across all major memory and logic customers. We continue to make progress with our new etch gas technology program, which is focused on advancing the development of new chemistries to enable more than 100-layer single-stack etching for advanced memory devices such as V-NAND. We continue to see significant performance in new POR wins across our existing portfolio and new product introductions.
- In the third quarter, our material innovation accelerator Intermolecular saw an increase in the amount of work done in their labs for quantum computing and neuromorphic computing companies. These companies benefit from the flexible device processing infrastructure and deep materials

knowledge to quickly achieve tangible products in these emerging technology areas. Intermolecular is a trusted partner for materials innovation and is our Silicon Valley science hub. For more than 15 years, Intermolecular has been exploring, testing and developing advanced materials that are revolutionizing the next generation of electronics.

- Delivery Systems & Services (DS&S) develops and deploys equipment that enables safe and reliable delivery of hazardous materials in the manufacturing processes of our customers. This unit also supports the installation of our equipment and the safe handling of our materials through MEGASYS® Gas and Chemical Services.
- Within the DS&S business, we are building on our reputation for supplying safe and reliable equipment to meet the needs of the semiconductor industry across all regions. In the third quarter, our opportunities consisted of supporting our customers' capital equipment needs with respect to their next technology node extensions and fab capacity expansions. We are in the process of increasing our manufacturing capacity to meet the growing demand in memory and foundry, and we commenced a project to manufacture our second CHEMGUARD product line, BCD100 and 200, state-of-the-art bulk chemical delivery systems.
- In the third quarter, we released our CHEMGUARD CG600 model for bulk Tetrakis(dimethylamino)titanium (TDMAT) delivery. This product extends our prior TDMAT technology to remote, bulk supply to support our customers' ever-increasing flow rate and uptime requirements of advanced nodes. The first container changes were successfully completed and executed much faster than anticipated, reducing container change time significantly.
- DS&S has successfully applied its GASGUARD Active Control technology to low vapor pressure compressed gases. Originally, it was developed to maintain, repeat and stabilize pressure for high vapor pressure gases under varying manufacturing conditions and with zero pressure drift. GASGUARD Active Control now allows semiconductor fabs to achieve much greater precision in controlling the pressure of low vapor pressure compressed gases, such as WF6 and others.
- This technology and all DS&S equipment are operated and maintained by our MEGASYS® Total Gas and Chemical Services at many of our customer sites. As part of a global operations infrastructure, we are the premier supplier of semiconductor fab and subfab services to the worldwide electronics industry.

Display Solutions

- Our Display Solutions business unit consists of the Liquid Crystals, Organic Light-Emitting Diodes (OLED), Photoresists, and Liquid Crystal Windows businesses. Currently, we are supporting our display customers in the development of novel display technologies and product concepts for applications, while also addressing new requirements that have emerged from the Covid-19 pandemic.
- With the proliferation of multiple use cases and display trends, technological requirements for the display industry are significantly expanding. We are in a leading position to develop required new display materials and technology concepts to contribute to the diverse display landscape. We remain active in the development of a broad range of display materials, including Liquid Crystals, OLED, Quantum Dots Pixel Color Converters (QDPCC) and Display Patterning Materials (DPM).
- In Liquid Crystals we continue to see very dynamic market developments. Covid-19 has accelerated the further market shift towards China and the associated increased competition. We maintained our position as the technology leader and with our XtraBright™ products, we were able to win new projects for large-area displays as well as high-resolution mobile devices.
- Our OLED materials business is contributing to the fast-growing market of flexible displays, which includes foldable smartphones and rollable TVs. Our OLED materials have qualified for all upcoming free-form display-based products that have entered and will enter the market this year. To further strengthen our ability to drive innovations in the fast-growing OLED market, the business is looking into new opportunities afforded by the OLED patents acquired in April from Konica Minolta. The acquired portfolio comprises over 700 patent families for OLED display applications and will further boost our OLED development pipeline.
- Our photoresist materials are also being used in flexible displays. Our low-temperature processable positive tone photoresists are widely used to pattern on-cell touch sensors. These sensors enable a thinner display structure, which is crucial for foldable devices.
- Our Liquid Crystal Windows business reached a major milestone with the opening of the Niemeyer Sphere located at the headquarters of crane manufacturer Kirow in Leipzig, Germany in July. The prestigious architectural piece is one of the last works of renowned Brazilian architect Oscar Niemeyer. The construction of the building was realized using

triangular versions of our eyrise® dynamic liquid crystal windows to achieve Niemeyer's design while maximizing the use of daylight. The Liquid Crystal Windows business is now preparing for the market launch of privacy-on-demand eyrise® windows in the first quarter of 2021.

Surface Solutions

- The core markets for Surface Solutions are automotive coatings, cosmetics, and, to a smaller extent, industrials. We are serving these markets with functional and decorative solutions. Our focus is on expanding our portfolio through innovation in all areas and proactive solution development in close cooperation with our customers.
- In September, we sold Litec-LLL GmbH, a subsidiary that develops and produces high-quality, specialized phosphors used in LEDs, under the terms of a management buyout. We will continue to cooperate with Litec as a supplier of various materials while at the same time increasing the flexibility of our supply chain.
- Just recently, Surface Solutions received the BSB Innovation Award in the category "Environment" for its mineral functional fillers of the RonaFlair® Line. With this product line, we offer an effective and scientifically proven alternative to microplastics used in cosmetics. Surface Solutions launched several new laser additives under the brand name Iriotec® and a new pigment Iriodin® NXT 103 for powder and coil coating applications. In March we announced the launch of RonaCare® Balmance, a new, award-winning active ingredient for anti-itching, redness reduction, and soothing relief.
- While Covid-19 has had significant impacts across the automotive and cosmetics markets, Surface Solutions is implementing measures to stabilize the business and to prepare for future growth.

Course of Business and Economic Position

Merck

Overview – Q3 2020

- Group sales increase by 9.7% to € 4,447 million
- Organic (7.2%) and acquisition-related sales growth (6.9%) offset by negative foreign exchange effects (–4.4%)
- Group EBITDA pre up by 53.0% to € 1,701 million; this includes income of € 365 million from the release of a provision for potential damages
- EBITDA pre margin improves to 38.2% (Q3 2019: 27.4%)
- Net financial debt amounts to € 12.1 billion on September 30, 2020 (December 31, 2019: € 12.4 billion)

MERCK GROUP

Key figures

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| EBITDA ¹ | 1,619 | 1,072 | 51.0% | 3,815 | 2,999 | 27.2% |
| Margin (% of net sales) ¹ | 36.4% | 26.5% | | 29.5% | 25.5% | |
| EBITDA pre ¹ | 1,701 | 1,111 | 53.0% | 3,956 | 3,179 | 24.4% |
| Margin (% of net sales) ¹ | 38.2% | 27.4% | | 30.6% | 27.0% | |
| Profit after tax | 806 | 342 | > 100.0% | 1,553 | 1,002 | 55.0% |
| Earnings per share (€) | 1.85 | 0.79 | > 100.0% | 3.57 | 2.31 | 54.5% |
| Earnings per share pre (€) ¹ | 2.34 | 1.35 | 73.3% | 5.14 | 4.02 | 27.9% |
| Business free cash flow ¹ | 1,514 | 731 | > 100.0% | 2,989 | 1,977 | 51.1% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In comparison with the year-earlier quarter, the Merck Group increased sales by € 393 million or 9.7% to € 4,447 million in the third quarter of 2020 (Q3 2019: € 4,054 million). This positive development was primarily due to acquisition-related sales increases in the Performance Materials business sector as well as double-digit percentage organic growth in Life Science. Group-wide organic sales growth amounted to € 292 million or 7.2%. Information on the impact of the Covid-19 pandemic on net sales can be found in the sections on the individual business sectors. Foreign exchange effects had an adverse impact of € –179 million or –4.4% on Group net sales. This was primarily attributable to the U.S. dollar, the Brazilian real as well as the Chinese renminbi. Portfolio changes increased Group

net sales by € 280 million or 6.9%. These primarily stemmed from the acquisition of Versum Materials, Inc., USA, (Versum), which closed on October 7, 2019, and complements the Semiconductor Solutions business of the Performance Materials business sector. The divestment of the Allergopharma allergy business on March 31, 2020 lowered sales of the Healthcare business sector.

In comparison with the year-earlier quarter, the Life Science business sector generated a sales increase of 11.3% to € 1,910 million in the third quarter of 2020 (Q3 2019: € 1,715 million). Double-digit organic growth of 15.6% was offset by exchange rate effects of –4.2%. Accounting for a 43% share of Group sales (Q3 2019: 42%), Life Science was once again the Group's largest business sector in terms of sales. In the third quarter of 2020, net sales of the Healthcare business

sector decreased by -3.1% to € 1,702 million (Q3 2019: € 1,756 million). Healthcare's share of Group net sales thus decreased by five percentage points to 38% (Q3 2019: 43%). The increase in sales of the Performance Materials business sector by a total of 43.4% to € 836 million (Q3 2019:

€ 583 million) was mainly due to the acquisition of Versum. The business sector sustained organic sales declines of -5.4%. The percentage contribution of the Performance Materials business sector to Group net sales rose by four percentage points to 19% (Q3 2019: 15%).

MERCK GROUP

Net sales by business sector

| € million | Q3 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Q3 2019 | Share |
|-----------------------|--------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|--------------|-------------|
| Healthcare | 1,702 | 38% | 3.2% | -5.1% | -1.2% | -3.1% | 1,756 | 43% |
| Life Science | 1,910 | 43% | 15.6% | -4.2% | - | 11.3% | 1,715 | 42% |
| Performance Materials | 836 | 19% | -5.4% | -2.8% | 51.6% | 43.4% | 583 | 15% |
| Merck Group | 4,447 | 100% | 7.2% | -4.4% | 6.9% | 9.7% | 4,054 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the third quarter of 2020, the regional sales development of the Merck Group was as follows:

MERCK GROUP

Net sales by region

| € million | Q3 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Q3 2019 | Share |
|------------------------------|--------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|--------------|-------------|
| Europe | 1,225 | 28% | 7.9% | -1.6% | -0.5% | 5.8% | 1,157 | 29% |
| North America | 1,240 | 28% | 14.0% | -5.5% | 7.0% | 15.6% | 1,073 | 26% |
| Asia-Pacific (APAC) | 1,622 | 36% | 3.8% | -3.5% | 14.5% | 14.8% | 1,414 | 35% |
| Latin America | 223 | 5% | 3.1% | -17.5% | 0.1% | -14.3% | 261 | 6% |
| Middle East and Africa (MEA) | 136 | 3% | -8.3% | -3.8% | 3.5% | -8.6% | 149 | 4% |
| Merck Group | 4,447 | 100% | 7.2% | -4.4% | 6.9% | 9.7% | 4,054 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, net sales of the Merck Group increased by € 1,165 million or 9.9% to € 12,936 million (January-September 2019: € 11,771 million). This positive sales development was attributable to the organic growth of

Life Science (9.2%) and Healthcare (3.2%) as well as to the acquisition-related sales increases in Performance Materials. Sales of the business sectors in the period from January to September 2020 developed as follows:

MERCK GROUP

Net sales by business sector

| € million | Jan.-Sept. 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Jan.-Sept. 2019 | Share |
|-----------------------|-----------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|-----------------|-------------|
| Healthcare | 4,901 | 38% | 3.2% | -2.7% | -0.7% | -0.2% | 4,913 | 42% |
| Life Science | 5,485 | 42% | 9.2% | -1.3% | - | 7.9% | 5,082 | 43% |
| Performance Materials | 2,550 | 20% | -8.2% | 0.5% | 51.3% | 43.6% | 1,776 | 15% |
| Merck Group | 12,936 | 100% | 4.1% | -1.6% | 7.4% | 9.9% | 11,771 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, Group sales by region were as follows:

MERCK GROUP

Net sales by region

| € million | Jan.-Sept. 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Jan.-Sept. 2019 | Share |
|---------------------------------|--------------------|-------------|--------------------------------|--------------------------|-------------------------------|--------------|--------------------|-------------|
| Europe | 3,653 | 28% | 4.4% | -0.6% | 0.3% | 4.1% | 3,508 | 30% |
| North America | 3,484 | 27% | 7.5% | -0.3% | 7.2% | 14.4% | 3,045 | 26% |
| Asia-Pacific (APAC) | 4,700 | 37% | 1.0% | -0.8% | 15.3% | 15.5% | 4,068 | 35% |
| Latin America | 679 | 5% | 7.1% | -16.4% | 0.2% | -9.1% | 747 | 6% |
| Middle East and Africa (MEA) | 421 | 3% | 0.4% | -1.2% | 5.1% | 4.4% | 404 | 3% |
| Merck Group | 12,936 | 100% | 4.1% | -1.6% | 7.4% | 9.9% | 11,771 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

The consolidated income statement of the Merck Group is as follows:

MERCK GROUP

Consolidated Income Statement

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|---|--------------|--------------|--------------------|--------------------|--------------------|----------------|
| Net sales | 4,447 | 4,054 | 9.7% | 12,936 | 11,771 | 9.9% |
| Cost of sales | -1,776 | -1,478 | 20.2% | -5,040 | -4,316 | 16.8% |
| Gross profit | 2,671 | 2,576 | 3.7% | 7,896 | 7,455 | 5.9% |
| Marketing and selling expenses | -992 | -1,100 | -9.9% | -3,085 | -3,348 | -7.8% |
| Administration expenses | -280 | -267 | 4.6% | -867 | -820 | 5.7% |
| Research and development costs | -531 | -558 | -4.9% | -1,630 | -1,638 | -0.5% |
| Impairment losses and reversals of impairment losses on financial assets (net) | -1 | -1 | 11.4% | - | -3 | -100.0% |
| Other operating expenses and income | 299 | -40 | > 100.0% | 60 | -41 | > 100.0% |
| Operating result (EBIT)¹ | 1,167 | 608 | 91.9% | 2,374 | 1,605 | 47.9% |
| Financial result | -102 | -135 | -24.6% | -302 | -309 | -2.0% |
| Profit before income tax | 1,065 | 473 | > 100.0% | 2,071 | 1,297 | 59.7% |
| Income tax | -258 | -134 | 93.3% | -518 | -337 | 53.6% |
| Profit after tax from continuing operations | 806 | 339 | > 100.0% | 1,553 | 960 | 61.9% |
| Profit after tax from discontinued operation | - | 2 | -100.0% | - | 43 | -100.0% |
| Profit after tax | 806 | 342 | > 100.0% | 1,553 | 1,002 | 55.0% |
| Non-controlling interests | -1 | 1 | > 100.0% | -2 | - | - |
| Net income | 805 | 343 | > 100.0% | 1,551 | 1,002 | 54.8% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the third quarter of 2020, gross profit of the Merck Group increased by 3.7% to € 2,671 million (Q3 2019: € 2,576 million). The resulting gross margin, i.e. gross profit as a percentage of sales, decreased to 60.1% (Q3 2019: 63.5%).

The declines in marketing and selling expenses as well as research and development costs compared with the year-earlier quarter were due mainly to the Healthcare business sector. In the third quarter of 2020, the Group research spending

ratio (research and development costs as a percentage of net sales) was 11.9% (Q3 2019: 13.8%). Accounting for a 73% (Q3 2019: 79%) share of research and development expenses of all business sectors, Healthcare is the most research-intensive business sector of Merck.

Other operating expenses and income (net) showed an income balance of € 299 million in the third quarter of 2020; in the year-earlier quarter this item showed an expense balance of € -40 million. This sharp change was primarily attributable to income of € 365 million from the release of a provision for potential damages relating to patent litigation with Biogen Inc., USA, (see "Significant events during the reporting period" under "Supplemental Financial Information" as well as the explanations under "Healthcare").

Higher provisions for obligations from long-term variable compensation programs (Merck Long-Term Incentive Plan) negatively impacted the operating result in the third quarter of 2020 with the increase in the intrinsic value of Merck Share Units (MSUs) being recognized under the respective functional

costs in the income statement depending on the field of activity of the eligible participants.

The financial result was € -102 million in the third quarter of 2020 (Q3 2019: € -135 million). This improvement was mainly the result of lower interest expenses as well as the development of the time value of Merck Share Units within the scope of the Merck Long Term Incentive Plan.

Income tax expenses of € 258 million (Q3 2019: € 134 million) led to an effective tax rate of 24.3% (Q3 2019: 28.3%).

Net income, i.e. profit after tax attributable to Merck KGaA shareholders, increased to € 805 million (Q3 2019: € 343 million), yielding earnings per share of € 1.85 (Q3 2019: € 0.79).

The following table presents the composition of EBITDA pre for the reporting period in comparison with the year-earlier quarter. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

MERCK GROUP

Reconciliation EBITDA pre¹

| € million | Q3 2020 | | | Q3 2019 | | | Change |
|--|--------------|----------------------------|------------------|--------------|----------------------------|------------------|--------------|
| | IFRS | Elimination of adjustments | Pre ¹ | IFRS | Elimination of adjustments | Pre ¹ | |
| Net sales | 4,447 | - | 4,447 | 4,054 | - | 4,054 | 9.7% |
| Cost of sales | -1,776 | 21 | -1,755 | -1,478 | 7 | -1,471 | 19.3% |
| Gross profit | 2,671 | 21 | 2,692 | 2,576 | 7 | 2,583 | 4.2% |
| Marketing and selling expenses | -992 | 6 | -986 | -1,100 | 2 | -1,099 | -10.2% |
| Administration expenses | -280 | 18 | -262 | -267 | 22 | -246 | 6.5% |
| Research and development costs | -531 | 1 | -530 | -558 | -10 | -568 | -6.7% |
| Impairment losses and reversals of impairment losses on financial assets (net) | -1 | - | -1 | -1 | - | -1 | 13.9% |
| Other operating expenses and income | 299 | 36 | 335 | -40 | 26 | -14 | >100.0% |
| Operating result (EBIT)¹ | 1,167 | | | 608 | | | |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 453 | -1 | 452 | 464 | -8 | 456 | -0.8% |
| EBITDA¹ | 1,619 | | | 1,072 | | | |
| Restructuring expenses | 33 | -33 | - | 10 | -10 | - | |
| Integration expenses / IT expenses | 26 | -26 | - | 28 | -28 | - | |
| Gains (-) / losses (+) on the divestment of businesses | 19 | -19 | - | -4 | 4 | - | |
| Acquisition-related adjustments | - | - | - | - | - | - | |
| Other adjustments | 3 | -3 | - | 4 | -4 | - | |
| EBITDA pre¹ | 1,701 | - | 1,701 | 1,111 | - | 1,111 | 53.0% |
| of which: organic growth ¹ | | | | | | | 52.6% |
| of which: exchange rate effects | | | | | | | -7.8% |
| of which: acquisitions / divestments | | | | | | | 8.2% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

EBITDA pre, the most important financial indicator used to steer operating business, soared by 53.0% to € 1,701 million in the third quarter of 2020 (Q3 2019: € 1,111 million). Organic earnings growth of 52.6%, which also includes income from the release of a provision for potential damages (€ 365 million), was offset by negative foreign exchange effects of -7.8%. The

acquisition of Versum led to an 8.2% increase in EBITDA pre. Relative to net sales, the EBITDA pre margin was 38.2% in the third quarter of 2020 (Q3 2019: 27.4%). Earnings per share pre (earnings per share after net of tax effect of adjustments and amortization of purchased intangible assets) improved by 73.3% to € 2.34 (Q3 2019: € 1.35).

The following table presents the composition of EBITDA pre for the first nine months of 2020 in comparison with the year-earlier period. The IFRS figures have been modified to reflect

the elimination of adjustments included in the respective functional costs.

MERCK GROUP

Reconciliation EBITDA pre¹

| € million | Jan.–Sept. 2020 | | | Jan.–Sept. 2019 | | | Change |
|--|-----------------|----------------------------|------------------|-----------------|----------------------------|------------------|------------------|
| | IFRS | Elimination of adjustments | Pre ¹ | IFRS | Elimination of adjustments | Pre ¹ | Pre ¹ |
| Net sales | 12,936 | - | 12,936 | 11,771 | - | 11,771 | 9.9% |
| Cost of sales | -5,040 | 44 | -4,996 | -4,316 | 27 | -4,289 | 16.5% |
| Gross profit | 7,896 | 44 | 7,940 | 7,455 | 27 | 7,482 | 6.1% |
| Marketing and selling expenses | -3,085 | 18 | -3,067 | -3,348 | 10 | -3,338 | -8.1% |
| Administration expenses | -867 | 67 | -799 | -820 | 69 | -750 | 6.5% |
| Research and development costs | -1,630 | -1 | -1,631 | -1,638 | 23 | -1,615 | 1.0% |
| Impairment losses and reversals of impairment losses on financial assets (net) | - | - | - | -3 | - | -3 | -100.0% |
| Other operating expenses and income | 60 | 127 | 187 | -41 | 60 | 19 | > 100.0% |
| Operating result (EBIT)¹ | 2,374 | | | 1,605 | | | |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 1,441 | -114 | 1,326 | 1,394 | -8 | 1,385 | -4.2% |
| EBITDA¹ | 3,815 | | | 2,999 | | | |
| Restructuring expenses | 69 | -69 | - | 111 | -111 | - | |
| Integration expenses / IT expenses | 85 | -85 | - | 63 | -63 | - | |
| Gains (-) / losses (+) on the divestment of businesses | -8 | 8 | - | -4 | 4 | - | |
| Acquisition-related adjustments | -11 | 11 | - | - | - | - | |
| Other adjustments | 7 | -7 | - | 10 | -10 | - | |
| EBITDA pre¹ | 3,956 | - | 3,956 | 3,179 | - | 3,179 | 24.4% |
| of which: organic growth ¹ | | | | | | | 18.5% |
| of which: exchange rate effects | | | | | | | -3.3% |
| of which: acquisitions / divestments | | | | | | | 9.2% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, EBITDA pre rose by 24.4% and amounted to € 3,956 million (January-September 2019: € 3,179 million). The increase in EBITDA pre was mainly due to organic growth (18.5%); this key figure improved by 9.2%

thanks to acquisitions. In the first nine months of 2020, the EBITDA pre margin increased to 30.6% (January-September 2019: 27.0%). Earnings per share pre rose by 27.9% to € 5.14 (January-September 2019: € 4.02).

NET ASSETS AND FINANCIAL POSITION

MERCK GROUP

Balance sheet structure

| | Sept. 30, 2020 | | Dec. 31, 2019 ¹ | | Change | |
|---|----------------|---------------|----------------------------|---------------|---------------|---------------|
| | € million | in % | € million | in % | € million | in % |
| Non-current assets | 32,973 | 76.3% | 34,805 | 79.4% | -1,832 | -5.3% |
| thereof: | | | | | | |
| Goodwill | 16,512 | | 17,114 | | -602 | |
| Other intangible assets | 8,172 | | 9,221 | | -1,048 | |
| Property, plant and equipment | 6,027 | | 6,192 | | -164 | |
| Other non-current assets | 2,262 | | 2,278 | | -17 | |
| Current assets | 10,258 | 23.7% | 9,003 | 20.6% | 1,254 | 13.9% |
| thereof: | | | | | | |
| Inventories | 3,428 | | 3,342 | | 86 | |
| Trade and other current receivables | 3,487 | | 3,488 | | - | |
| Other current financial assets | 85 | | 57 | | 28 | |
| Other current assets | 1,710 | | 1,336 | | 373 | |
| Cash and cash equivalents | 1,548 | | 781 | | 767 | |
| Total assets | 43,231 | 100.0% | 43,808 | 100.0% | -577 | -1.3% |
| Equity | 17,996 | 41.6% | 17,914 | 40.9% | 82 | 0.5% |
| Non-current liabilities | 15,526 | 35.9% | 14,053 | 32.1% | 1,473 | 10.5% |
| thereof: | | | | | | |
| Non-current provisions for employee benefits | 3,534 | | 3,194 | | 340 | |
| Other non-current provisions | 256 | | 254 | | 2 | |
| Non-current financial debt | 9,977 | | 8,644 | | 1,334 | |
| Other non-current liabilities | 1,759 | | 1,962 | | -203 | |
| Current liabilities | 9,709 | 22.5% | 11,842 | 27.0% | -2,132 | -18.0% |
| thereof: | | | | | | |
| Current provisions | 530 | | 933 | | -403 | |
| Current financial debt | 3,683 | | 4,550 | | -867 | |
| Trade and other current payables / refund liabilities | 2,364 | | 2,618 | | -254 | |
| Other current liabilities | 3,132 | | 3,740 | | -608 | |
| Total equity and liabilities | 43,231 | 100.0% | 43,808 | 100.0% | -577 | -1.3% |

¹ Previous year's figures have been adjusted, see "Effects of disclosure changes" under "Supplemental Financial Information".

As of September 30, 2020, total assets of the Merck Group decreased slightly to € 43,231 million (December 31, 2019: € 43,808 million). Since the beginning of 2020, working capital has risen by 10.6% to € 4,364 million (December 31, 2019:

€ 3,944 million). This development was mainly due to a decline in trade accounts payable.

The composition and the development of net financial debt were as follows:

MERCK GROUP

Net financial debt¹

| | Sept. 30, 2020 | Dec. 31, 2019 | Change | |
|--|----------------|---------------|-------------|--------------|
| | € million | € million | € million | in % |
| Bonds and commercial paper | 10,081 | 10,059 | 22 | 0.2% |
| Bank loans | 1,883 | 1,587 | 296 | 18.7% |
| Liabilities to related parties | 984 | 809 | 176 | 21.7% |
| Loans from third parties and other financial liabilities | 57 | 97 | -40 | -41.0% |
| Liabilities from derivatives (financial transactions) | 133 | 76 | 57 | 74.7% |
| Lease liabilities | 523 | 567 | -44 | -7.8% |
| Financial debt | 13,661 | 13,194 | 467 | 3.5% |
| less: | | | | |
| Cash and cash equivalents | 1,548 | 781 | 767 | 98.3% |
| Current financial assets ² | 31 | 50 | -20 | -38.8% |
| Net financial debt¹ | 12,082 | 12,363 | -281 | -2.3% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Excluding current derivatives (operational).

MERCK GROUP

Reconciliation of net financial debt¹

| € million | 2020 |
|--|---------------|
| January 1 | 12,363 |
| Currency translation difference | -88 |
| Dividend payments / Profit withdrawals ² | 686 |
| Acquisitions ² | 7 |
| Payments from other divestments ² | -49 |
| Payments for the purchase of non-financial assets ² | 500 |
| Free cash flow ¹ | -1,336 |
| Other | -1 |
| September 30 | 12,082 |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² As reported in the Consolidated Cash Flow Statement.

Equity rose in the first nine months of 2020 by 0.5% to € 17,996 million (December 31, 2019: € 17,914 million). Consequently, the equity ratio increased to 41.6% (December 31,

2019: 40.9%). More information on the development of equity can be found in the Consolidated Statement of Changes in Net Equity under "Supplemental Financial Information".

The composition of free cash flow as well as the development of the relevant items are presented in the following table:

MERCK GROUP

Free cash flow¹

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|---|------------|------------|--------------|-----------------|-----------------|---------------|
| Cash flow from operating activities as reported in the consolidated cash flow statement | 1,170 | 931 | 25.8% | 2,189 | 2,166 | 1.1% |
| Payments for investments in intangible assets | -35 | -29 | 18.3% | -101 | -122 | -17.2% |
| Payments from the disposal of intangible assets | 4 | 8 | -48.4% | 17 | 24 | -30.4% |
| Payments for investments in property, plant and equipment | -235 | -193 | 22.2% | -777 | -566 | 37.1% |
| Payments from the disposal of property, plant and equipment | -2 | -1 | 59.4% | 8 | 5 | 47.2% |
| Free cash flow¹ | 903 | 715 | 26.2% | 1,336 | 1,507 | -11.3% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In comparison with the year-earlier quarter, business free cash flow of the Merck Group more than doubled in the third quarter of 2020 to € 1,514 million (Q3 2019: € 731 million). This was

primarily attributable to the increase in EBITDA pre and the development of inventories.

MERCK GROUP

Business free cash flow¹

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|--|--------------|------------|--------------------|-----------------|-----------------|--------------|
| EBITDA pre ¹ | 1,701 | 1,111 | 53.0% | 3,956 | 3,179 | 24.4% |
| Investments in property, plant and equipment, software as well as advance payments for intangible assets | -258 | -210 | 23.3% | -655 | -528 | 23.9% |
| Changes in inventories | 109 | -102 | > 100.0% | -86 | -371 | -76.8% |
| Changes in trade accounts receivable and receivables from royalties and licenses | -3 | -34 | -91.7% | -79 | -209 | -61.9% |
| Lease payments ² | -35 | -35 | -0.6% | -102 | -94 | 8.8% |
| Elimination of changes in consolidation | - | - | - | -45 | - | - |
| Business free cash flow¹ | 1,514 | 731 | > 100.0% | 2,989 | 1,977 | 51.1% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Excluding payments for low-value leases and interest components included in lease payments.

In comparison with the year-earlier period, business free cash flow rose by 51.1% to € 2,989 million in the first nine months of 2020 (January-September 2019: € 1,977 million). The increase

in EBITDA pre had a positive effect as did the development of inventories and receivables.

Healthcare

HEALTHCARE

Key figures

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|--------------------------------------|---------|---------|----------|-----------------|-----------------|--------|
| Net sales | 1,702 | 1,756 | -3.1% | 4,901 | 4,913 | -0.2% |
| Operating result (EBIT) ¹ | 807 | 325 | > 100.0% | 1,499 | 798 | 87.8% |
| Margin (% of net sales) ¹ | 47.5% | 18.5% | | 30.6% | 16.2% | |
| EBITDA ¹ | 892 | 504 | 77.1% | 1,752 | 1,355 | 29.3% |
| Margin (% of net sales) ¹ | 52.4% | 28.7% | | 35.7% | 27.6% | |
| EBITDA pre ¹ | 896 | 501 | 78.9% | 1,742 | 1,361 | 28.0% |
| Margin (% of net sales) ¹ | 52.7% | 28.5% | | 35.5% | 27.7% | |
| Business free cash flow ¹ | 790 | 311 | > 100.0% | 1,429 | 878 | 62.6% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In the third quarter of 2020, the Healthcare business sector generated organic sales growth of 3.2%. Including negative foreign exchange effects of -5.1% and the impact of the divestment of the Allergopharma allergy business in the first quarter of 2020 (-1.2%), net sales amounted to € 1,702 million (Q3 2019: € 1,756 million). The exchange rate effect reflects

the negative development of various currencies against the euro, in particular the U.S. dollar, the Brazilian real, the Chinese renminbi, and the Russian ruble.

Sales of the key product lines and products developed in the third quarter of 2020 as follows:

HEALTHCARE

Net sales by major product lines / products

| € million | Q3 2020 | Share | Organic growth ¹ | Exchange rate effects | Total change | Q3 2019 | Share |
|---|--------------|-------------|-----------------------------|-----------------------|--------------|--------------|-------------|
| Oncology | 275 | 16% | 7.2% | -4.4% | 2.8% | 268 | 15% |
| thereof: Erbitux® | 217 | 13% | 2.2% | -4.5% | -2.3% | 222 | 13% |
| thereof: Bavencio® | 42 | 2% | 52.9% | -5.9% | 47.0% | 29 | 2% |
| Neurology & Immunology | 427 | 25% | 8.9% | -3.9% | 5.0% | 407 | 23% |
| thereof: Rebif® | 279 | 16% | -8.7% | -3.5% | -12.1% | 318 | 18% |
| thereof: Mavenclad® | 148 | 9% | 71.7% | -5.6% | 66.1% | 89 | 5% |
| Fertility | 314 | 19% | -1.3% | -4.6% | -5.9% | 334 | 19% |
| thereof: Gonal-f® | 192 | 11% | -2.2% | -4.5% | -6.7% | 206 | 12% |
| General Medicine & Endocrinology | 645 | 38% | 2.4% | -6.5% | -4.1% | 673 | 39% |
| thereof: Glucophage® | 226 | 13% | 3.0% | -6.9% | -3.9% | 235 | 13% |
| thereof: Concor® | 127 | 7% | -4.8% | -6.5% | -11.2% | 143 | 8% |
| thereof: Euthyrox® | 115 | 7% | 13.6% | -7.0% | 6.5% | 108 | 6% |
| thereof: Saizen® | 59 | 3% | 2.3% | -5.0% | -2.6% | 60 | 3% |
| Other | 40 | 2% | | | | 75 | 4% |
| Healthcare | 1,702 | 100% | 3.2% | -5.1% | -3.1% | 1,756 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

The oncology drug Erbitux® generated slightly positive organic sales growth of 2.2%. Negative exchange rate effects of -4.5% were responsible for a -2.3% decline in global net sales to € 217 million (Q3 2019: € 222 million). The Asia-Pacific region saw an organic decline of -3.5% to € 91 million (Q3 2019: € 98 million). Although China continued to see a favorable, positive development as a result of the addition of Erbitux® to the National Reimbursement Drug List, the difficult competitive situation in Japan as a result of the market launch of new medicines was responsible for the negative performance in the region overall. In the core markets within Europe, the situation remained difficult owing to the competitive environment. Nevertheless, positive effects from tenders won led to favorable organic growth of 6.3% for the region as a whole. Overall, Erbitux® sales in Europe amounted to € 100 million (Q3 2019: € 98 million).

Within Immuno-Oncology, sales of the oncology drug Bavencio® grew organically by 52.9% amid negative foreign exchange effects of -5.9% to € 42 million (Q3 2019: € 29 million). The key driver of the growth of Bavencio® was its approval in the United States in June 2020 as a maintenance ther-

apy in patients with locally advanced or metastatic urothelial carcinoma (UC). Bavencio® is the first immunotherapy to show a greater survival advantage compared with standard care in first-line treatment of locally advanced or metastatic urothelial carcinoma in a Phase III clinical trial. Additional positive effects were generated by the approval of Bavencio® in Europe and Japan at the end of 2019 as a treatment in patients with advanced renal cell carcinoma (RCC) in combination with axitinib.

Mavenclad®, for the oral short-course treatment of highly active relapsing multiple sclerosis, generated growth of 71.7% in the third quarter of 2020. Including negative foreign exchange effects of -5.6%, the corresponding sales amounted to € 148 million (Q3 2019: € 89 million). Europe benefited from a strong recovery trend in a market that was adversely impacted by the Covid-19 pandemic in the second quarter of 2020, as well as from further approvals, including in Russia and Turkey, in 2019. In North America, the continued positive growth trend was maintained. Compared with the year-earlier quarter, sales more than doubled yet again, totaling € 74 million (Q3 2019: € 32 million).

HEALTHCARE

Product sales and organic growth¹ of Rebif®, Glucophage® and Erbitux® by region – Q3 2020

| | Total | Europe | North America | Asia-Pacific (APAC) | Latin America | Middle East and Africa (MEA) |
|-------------|----------------------------------|--------|---------------|---------------------|---------------|------------------------------|
| Rebif® | € million | 279 | 76 | 178 | 3 | 10 |
| | Organic growth ¹ in % | -8.7% | -8.2% | -8.8% | -7.5% | 4.5% |
| | % of sales | 100% | 27% | 64% | 1% | 3% |
| Glucophage® | € million | 226 | 28 | - | 142 | 31 |
| | Organic growth ¹ in % | 3.0% | -2.3% | - | 3.3% | 9.3% |
| | % of sales | 100% | 12% | - | 63% | 14% |
| Erbitux® | € million | 217 | 100 | - | 91 | 16 |
| | Organic growth ¹ in % | 2.2% | 6.3% | - | -3.5% | 9.1% |
| | % of sales | 100% | 46% | - | 42% | 7% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

The medicine Rebif®, which is used to treat relapsing forms of multiple sclerosis, saw an organic decline of -8.7%, thus slightly slowing down the long-term negative trend. Negative foreign exchange effects of -3.5% were responsible for a -12.1% decrease in global net sales to € 279 million (Q3 2019: € 318 million). In North America, the largest sales market for Rebif®, the continued difficult competitive situation in the interferon market as well as competition from oral dosage forms and high-efficacy therapies were responsible for the organic sales decline of -8.8%. The corresponding sales amounted to € 178 million (Q3 2019: € 205 million). In Europe, sales also declined organically by -8.2% to € 76 million (Q3 2019: € 84 million) owing to lasting competitive pressure. The decrease in the other regions, where Rebif® generated sales of € 25 million (Q3 2019: € 28 million), was mainly attributable to the organic sales decline in the Middle East region.

Gonal-f®, the leading recombinant hormone used in the treatment of infertility, saw a moderate organic decline of -2.2%. This was amplified by negative foreign exchange effects

of -4.5%. Global sales thus declined to € 192 million (Q3 2019: € 206 million). While China continued to see decreasing sales compared with the year-earlier quarter, the North America region generated double-digit organic growth of 25.8%. This was mainly driven by rebound effects from the previous quarter in connection with the Covid-19 pandemic.

The General Medicine & Endocrinology franchise (including CardioMetabolic Care), which commercializes products to treat cardiovascular diseases, thyroid disorders, diabetes, and growth disorders, among other things, generated organic growth of 2.4% in the third quarter of 2020. Including currency headwinds of -6.5%, net sales of the franchise amounted to € 645 million (Q3 2019: € 673 million). At 13.6%, only Euthyrox® recorded double-digit organic growth.

The diabetes medicine Glucophage® from the General Medicine franchise generated organic growth of 3.0%. However, negative foreign exchange effects of -6.9% were responsible for a -3.9% decline in global net sales to € 226 million (Q3 2019: € 235 million). The key drivers of the organic growth

of this medicine were China and Latin America with favorable organic sales increases of 3.8 % and 9.3%, respectively.

Net sales of the business sector by region developed in the third quarter of 2020 as follows:

HEALTHCARE

Net sales by region

| € million | Q3 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Q3 2019 | Share |
|------------------------------|--------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|--------------|-------------|
| Europe | 529 | 31% | 2.8% | -3.1% | -3.8% | -4.0% | 551 | 31% |
| North America | 416 | 25% | 10.5% | -5.2% | - | 5.3% | 395 | 23% |
| Asia-Pacific (APAC) | 494 | 29% | 0.3% | -3.2% | - | -3.0% | 509 | 29% |
| Latin America | 156 | 9% | 5.4% | -17.9% | - | -12.5% | 178 | 10% |
| Middle East and Africa (MEA) | 107 | 6% | -9.2% | -3.6% | - | -12.8% | 122 | 7% |
| Healthcare | 1,702 | 100% | 3.2% | -5.1% | -1.2% | -3.1% | 1,756 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, the Healthcare business sector generated net sales of € 4,901 million (January-September 2019: € 4,913 million). This development reflected organic growth of 3.2%, negative foreign exchange effects of -2.7% and the impact of the divestment of Allergopharma in the first quarter of 2020.

Within the Healthcare business sector, the Fertility franchise was, as expected, impacted most strongly by the effects of the Covid-19 pandemic. As a result, it sustained an organic decline compared with the year-earlier period. On the other hand, all other franchises generated organic growth, contributing to the favorable sales performance of the Healthcare business sector. The key drivers of this positive development were the

organic growth of Glucophage® (9.6%), Euthyrox® (20.7%) and Concor® (10.0%) in the General Medicine franchise as well as Mavenclad® (85.5%) and Bavencio® (44.6%). The decline in Rebif® due to the difficult competitive environment was significantly more than offset by Mavenclad® with an increase in sales to € 353 million (January-September 2019: € 194 million).

In the first nine months of 2020, Rebif® generated sales of € 864 million (January-September 2019: € 947 million). Sales of Bavencio® rose to € 105 million (January-September 2019: € 74 million).

In the first nine months of 2020, the sales of the major product lines and products developed as follows:

HEALTHCARE

Net sales by major product lines / products

| € million | Jan.-Sept. 2020 | Share | Organic growth ¹ | Exchange rate effects | Total change | Jan.-Sept. 2019 | Share |
|---|-----------------|-------------|-----------------------------|-----------------------|---------------|-----------------|-------------|
| Oncology | 793 | 16% | 9.1% | -2.8% | 6.3% | 746 | 15% |
| thereof: Erbitux® | 636 | 13% | 3.4% | -3.0% | 0.4% | 633 | 13% |
| thereof: Bavencio® | 105 | 2% | 44.6% | -2.6% | 42.0% | 74 | 2% |
| Neurology & Immunology | 1,217 | 25% | 7.5% | -0.9% | 6.7% | 1,141 | 23% |
| thereof: Rebif® | 864 | 18% | -8.4% | -0.4% | -8.8% | 947 | 19% |
| thereof: Mavenclad® | 353 | 7% | 85.5% | -3.0% | 82.4% | 194 | 4% |
| Fertility | 781 | 16% | -14.6% | -1.8% | -16.4% | 934 | 19% |
| thereof: Gonal-f® | 471 | 10% | -14.9% | -1.7% | -16.6% | 565 | 11% |
| General Medicine & Endocrinology | 1,963 | 40% | 8.5% | -4.2% | 4.3% | 1,882 | 39% |
| thereof: Glucophage® | 686 | 14% | 9.6% | -4.6% | 5.1% | 653 | 13% |
| thereof: Concor® | 407 | 8% | 10.0% | -3.9% | 6.1% | 384 | 8% |
| thereof: Euthyrox® | 344 | 7% | 20.7% | -5.0% | 15.7% | 297 | 6% |
| thereof: Saizen® | 177 | 4% | 7.4% | -5.0% | 2.5% | 173 | 4% |
| Other | 146 | 3% | | | | 209 | 4% |
| Healthcare | 4,901 | 100% | 3.2% | -2.7% | -0.2% | 4,913 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, net sales by region were as follows:

HEALTHCARE

Net sales by region

| € million | Jan.–Sept. 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Jan.–Sept. 2019 | Share |
|---------------------------------|--------------------|-------------|--------------------------------|--------------------------|-------------------------------|--------------|--------------------|-------------|
| Europe | 1,603 | 33% | 1.0% | -1.4% | -2.2% | -2.7% | 1,647 | 33% |
| North America | 1,116 | 23% | 5.5% | -0.4% | - | 5.0% | 1,063 | 22% |
| Asia-Pacific (APAC) | 1,378 | 28% | 2.3% | -1.4% | - | 0.9% | 1,366 | 28% |
| Latin America | 476 | 10% | 9.8% | -16.6% | - | -6.7% | 511 | 10% |
| Middle East and Africa (MEA) | 327 | 6% | 1.0% | -0.8% | - | 0.2% | 327 | 7% |
| Healthcare | 4,901 | 100% | 3.2% | -2.7% | -0.7% | -0.2% | 4,913 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

The following table presents the composition of EBITDA pre for the reporting period in comparison with the year-earlier quarter. The IFRS figures have been modified to reflect the

elimination of adjustments included in the respective functional costs.

HEALTHCARE

Reconciliation EBITDA pre¹

| € million | Q3 2020 | | | Q3 2019 | | | Change |
|---|--------------|-------------------------------|------------------|--------------|-------------------------------|------------------|------------------|
| | IFRS | Elimination of adjustments | Pre ¹ | IFRS | Elimination of adjustments | Pre ¹ | Pre ¹ |
| Net sales | 1,702 | - | 1,702 | 1,756 | - | 1,756 | -3.1% |
| Cost of sales | -427 | - | -427 | -418 | - | -418 | 2.3% |
| Gross profit | 1,274 | - | 1,274 | 1,338 | - | 1,338 | -4.8% |
| Marketing and selling expenses | -382 | 4 | -379 | -561 | 2 | -558 | -32.2% |
| Administration expenses | -75 | - | -75 | -82 | 2 | -81 | -6.9% |
| Research and development costs | -378 | - | -378 | -429 | 1 | -428 | -11.6% |
| Impairment losses and reversals of impairment losses on financial assets (net) | -1 | - | -1 | 1 | - | 1 | > 100.0% |
| Other operating expenses and income | 370 | - | 370 | 58 | -8 | 51 | > 100.0% |
| Operating result (EBIT)¹ | 807 | | | 325 | | | |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 84 | - | 84 | 178 | - | 178 | -52.6% |
| EBITDA¹ | 892 | | | 504 | | | |
| Restructuring expenses | 5 | -5 | - | 1 | -1 | - | |
| Integration expenses / IT expenses | - | - | - | 2 | -2 | - | |
| Gains (-) / losses (+) on the divestment of businesses | -1 | 1 | - | -6 | 6 | - | |
| Acquisition-related adjustments | - | - | - | - | - | - | |
| Other adjustments | - | - | - | - | - | - | |
| EBITDA pre¹ | 896 | - | 896 | 501 | - | 501 | 78.9% |
| of which: organic growth ¹ | | | | | | | 93.7% |
| of which: exchange rate effects | | | | | | | -15.0% |
| of which: acquisitions / divestments | | | | | | | 0.3% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the third quarter of 2020, gross profit decreased to € 1,274 million (Q3 2019: € 1,338 million). The resulting gross margin was 74.9% (Q3 2019: 76.2%). The decline in gross margin was mainly attributable to the unfavorable foreign exchange development. After eliminating adjustments, marketing and selling expenses declined in comparison with the year-earlier quarter by -32.2% to € 379 million (Q3 2019: € 558 million). This was mainly due to lower costs owing to the Covid-19 pandemic and the expiration of amortization in connection with the purchase price allocation for the Serono acquisition in 2006. The currently somewhat lower spending requirement for our pipeline is reflected in the decline in research and development costs compared with the year-earlier quarter. In the third quarter of 2020, these amounted to € 378 million (Q3 2019: € 428 million).

The favorable development of other operating expenses and income was mainly due to the release of a provision for potential damages in connection with Biogen Inc., USA, (Biogen). In the third quarter of 2020, this had a positive impact of € 365 million on the operating result. EBITDA pre soared accordingly by 78.9% to € 896 million in the third quarter of 2020 (Q3 2019: € 501 million). Organic earnings growth amounted to 93.7% amid negative foreign exchange effects of -15.0%. The EBITDA pre margin increased to 52.7 % (Q3 2019: 28.5%).

The following table presents the composition of EBITDA pre for the reporting period in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

HEALTHCARE

Reconciliation EBITDA pre¹

| € million | Jan.–Sept. 2020 | | | Jan.–Sept. 2019 | | | Change Pre ¹ |
|--|-----------------|-------------------------------|------------------|-----------------|-------------------------------|------------------|----------------------------|
| | IFRS | Elimination of adjustments | Pre ¹ | IFRS | Elimination of adjustments | Pre ¹ | |
| Net sales | 4,901 | - | 4,901 | 4,913 | - | 4,913 | -0.2% |
| Cost of sales | -1,185 | - | -1,185 | -1,164 | - | -1,164 | 1.8% |
| Gross profit | 3,716 | - | 3,716 | 3,750 | - | 3,750 | -0.9% |
| Marketing and selling expenses | -1,215 | 12 | -1,203 | -1,710 | 2 | -1,708 | -29.6% |
| Administration expenses | -236 | 3 | -233 | -254 | 6 | -248 | -6.2% |
| Research and development costs | -1,161 | - | -1,161 | -1,204 | 1 | -1,203 | -3.4% |
| Impairment losses and reversals of impairment losses on financial assets (net) | 1 | - | 1 | -1 | - | -1 | > 100.0% |
| Other operating expenses and income | 394 | -23 | 370 | 217 | -4 | 213 | 73.7% |
| Operating result (EBIT)¹ | 1,499 | | | 798 | | | |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 253 | -2 | 251 | 557 | - | 557 | -54.9% |
| EBITDA¹ | 1,752 | | | 1,355 | | | |
| Restructuring expenses | 19 | -19 | - | 6 | -6 | - | |
| Integration expenses / IT expenses | 2 | -2 | - | 8 | -8 | - | |
| Gains (-) / losses (+) on the divestment of businesses | -31 | 31 | - | -8 | 8 | - | |
| Acquisition-related adjustments | - | - | - | - | - | - | |
| Other adjustments | - | - | - | - | - | - | |
| EBITDA pre¹ | 1,742 | - | 1,742 | 1,361 | - | 1,361 | 28.0% |
| of which: organic growth ¹ | | | | | | | 34.4% |
| of which: exchange rate effects | | | | | | | -6.8% |
| of which: acquisitions / divestments | | | | | | | 0.5% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, the Healthcare business sector generated a 28.0% increase in EBITDA pre to € 1,742 million (January-September 2019: € 1,361 million). Organic growth of 34.4% was weakened by negative foreign exchange effects of -6.8%. Considerably lower marketing and selling expenses

as well as income from the release of a provision for potential damages in connection with the patent litigation with Biogen had a positive impact on EBITDA pre. Accordingly, the EBITDA pre margin improved by around eight percentage points to 35.5% (January-September 2019: 27.7%).

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the third quarter of 2020, business free cash flow amounted to € 790 million (Q3 2019: € 311 million). The increase was

due mainly to the growth of EBITDA pre. In addition, the development of receivables compared with the year-earlier quarter had a positive effect on business free cash flow.

HEALTHCARE**Business free cash flow¹**

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|--|------------|------------|--------------------|--------------------|--------------------|--------------|
| EBITDA pre ¹ | 896 | 501 | 78.9% | 1,742 | 1,361 | 28.0% |
| Investments in property, plant and equipment, software as well as advance payments for intangible assets | -101 | -98 | 3.5% | -244 | -220 | 11.1% |
| Changes in inventories | 18 | -7 | > 100.0% | -37 | -71 | -47.5% |
| Changes in trade accounts receivable and receivables from royalties and licenses | -11 | -73 | -85.5% | 30 | -156 | > 100.0% |
| Lease payments ² | -12 | -13 | -5.6% | -35 | -36 | -0.6% |
| Elimination Allergopharma divestment | - | - | - | -26 | - | - |
| Business free cash flow¹ | 790 | 311 | > 100.0% | 1,429 | 878 | 62.6% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Excluding payments for low-value leases and interest components included in lease payments.

In the first nine months of 2020, the business sector generated business free cash flow of € 1,429 million (January-September 2019: € 878 million). Higher EBITDA pre and the development

of receivables were the main reasons for this key indicator increase.

Life Science

LIFE SCIENCE

Key figures

| € million | Q3 2020 | Q3 2019 | Change | Jan.–Sept. 2020 | Jan.–Sept. 2019 | Change |
|--------------------------------------|---------|---------|--------|-----------------|-----------------|--------|
| Net sales | 1,910 | 1,715 | 11.3% | 5,485 | 5,082 | 7.9% |
| Operating result (EBIT) ¹ | 417 | 316 | 31.9% | 1,148 | 951 | 20.7% |
| Margin (% of net sales) ¹ | 21.8% | 18.4% | | 20.9% | 18.7% | |
| EBITDA ¹ | 612 | 511 | 19.7% | 1,737 | 1,536 | 13.1% |
| Margin (% of net sales) ¹ | 32.0% | 29.8% | | 31.7% | 30.2% | |
| EBITDA pre ¹ | 630 | 531 | 18.7% | 1,752 | 1,580 | 10.9% |
| Margin (% of net sales) ¹ | 33.0% | 31.0% | | 31.9% | 31.1% | |
| Business free cash flow ¹ | 566 | 410 | 38.0% | 1,284 | 1,002 | 28.2% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

DEVELOPMENT OF SALES AND RESULTS OF OPERATIONS

In the third quarter of 2020, Life Science generated organic sales growth of 15.6% amid an unfavorable foreign exchange impact of -4.2%, resulting in net sales growth of 11.3%

compared with the year-earlier quarter. Overall, Life Science net sales increased to € 1,910 million (Q3 2019: € 1,715 million).

LIFE SCIENCE

Net sales by business unit

| € million | Q3 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Q3 2019 ² | Share |
|---------------------|--------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|----------------------|-------------|
| Process Solutions | 926 | 48% | 26.5% | -4.1% | - | 22.4% | 756 | 44% |
| Research Solutions | 566 | 30% | 9.5% | -4.4% | - | 5.1% | 539 | 31% |
| Applied Solutions | 418 | 22% | 3.7% | -4.1% | - | -0.5% | 420 | 25% |
| Life Science | 1,910 | 100% | 15.6% | -4.2% | - | 11.3% | 1,715 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Previous year's figures have been adjusted owing to an internal realignment.

The Process Solutions business unit, which markets products and services for the entire pharmaceutical production value chain, generated organic sales growth of 26.5%, which was the highest rate within the Life Science business sector. This was mainly due to continued high underlying demand as well as to additional business related to the Covid-19 effort. Amid an unfavorable foreign exchange effect of -4.1%, net sales totaled € 926 million in the third quarter of 2020 (Q3 2019: € 756 million). Process Solutions thus accounted for 48% of Life Science net sales. Process Solutions saw double-digit sales growth in all regions apart from Latin America.

The Research Solutions business unit, which provides products and services to support life science research for pharmaceutical, biotechnology, and academic research laboratories, recorded organic sales growth of 9.5% in the third quarter of 2020. Among other things, this was due to a strong recovery of the business following the closures of academic laboratories in the first half of 2020 due to the pandemic. With an unfavorable foreign exchange effect of -4.4%, sales totaled € 566 million (Q3 2019: € 539 million). Research Solutions thus accounted for 30% of Life Science net sales. The favorable organic sales growth of the business unit was generated in the North America, Europe and Asia-Pacific regions.

The Applied Solutions business unit, which offers a broad range of products for researchers as well as scientific and industrial laboratories, accounted for a 22% share of Life Science sales. Applied Solutions generated moderate organic sales growth of 3.7% in the third quarter of 2020 also thanks to a slight recovery from the negative impacts of the Covid-19 pandemic on the business. Including an unfavorable foreign exchange effect

of -4.1%, sales totaled € 418 million in the third quarter of 2020 (Q3 2019: € 420 million). Thanks to organic growth, net sales increased in the key regions for Applied Solutions, namely Europe, North America and Asia-Pacific in the third quarter.

Net sales of the business sector by region developed in the third quarter of 2020 as follows:

LIFE SCIENCE

Net sales by region

| € million | Q3 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Q3 2019 | Share |
|------------------------------|--------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|--------------|-------------|
| Europe | 640 | 34% | 15.3% | -0.3% | - | 15.0% | 556 | 33% |
| North America | 702 | 37% | 17.9% | -5.7% | - | 12.2% | 626 | 37% |
| Asia-Pacific (APAC) | 486 | 25% | 16.6% | -5.0% | - | 11.6% | 436 | 25% |
| Latin America | 60 | 3% | -3.0% | -16.1% | - | -19.1% | 74 | 4% |
| Middle East and Africa (MEA) | 22 | 1% | -2.3% | -5.3% | - | -7.6% | 23 | 1% |
| Life Science | 1,910 | 100% | 15.6% | -4.2% | - | 11.3% | 1,715 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, Life Science net sales grew organically by 9.2% with an unfavorable foreign exchange impact of -1.3%, resulting in total growth of 7.9% over the year-earlier period. At 20.0%, the Process Solutions business unit reported the strongest organic growth followed by Applied

Solutions with 1.2%. The Research Solutions business unit remained flat with 0.8%. Taking these effects into account, Life Science net sales increased to € 5,485 million (January-September 2019: € 5,082 million).

LIFE SCIENCE

Net sales by business unit

| € million | Jan.-Sept. 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Jan.-Sept. 2019 ² | Share |
|---------------------|-----------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|------------------------------|-------------|
| Process Solutions | 2,620 | 48% | 20.0% | -0.9% | - | 19.1% | 2,199 | 43% |
| Research Solutions | 1,613 | 29% | 0.8% | -1.5% | - | -0.7% | 1,625 | 32% |
| Applied Solutions | 1,252 | 23% | 1.2% | -1.7% | - | -0.5% | 1,257 | 25% |
| Life Science | 5,485 | 100% | 9.2% | -1.3% | - | 7.9% | 5,082 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Previous year's figures have been adjusted owing to an internal realignment.

In the first nine months of 2020, sales by region developed as follows:

LIFE SCIENCE

Net sales by region

| € million | Jan.-Sept. 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Jan.-Sept. 2019 | Share |
|------------------------------|-----------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|-----------------|-------------|
| Europe | 1,864 | 34% | 9.5% | 0.1% | - | 9.6% | 1,700 | 34% |
| North America | 1,995 | 37% | 9.9% | -0.3% | - | 9.6% | 1,820 | 36% |
| Asia-Pacific (APAC) | 1,380 | 25% | 9.5% | -1.9% | - | 7.6% | 1,282 | 25% |
| Latin America | 181 | 3% | 1.9% | -16.3% | - | -14.4% | 211 | 4% |
| Middle East and Africa (MEA) | 65 | 1% | -1.0% | -3.0% | - | -4.0% | 68 | 1% |
| Life Science | 5,485 | 100% | 9.2% | -1.3% | - | 7.9% | 5,082 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

The following table presents the composition of EBITDA pre for the reporting period in comparison with the year-earlier quarter.

The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

LIFE SCIENCE

Reconciliation EBITDA pre¹

| € million | Q3 2020 | | | Q3 2019 | | | Change |
|--|--------------|----------------------------|------------------|--------------|----------------------------|------------------|------------------|
| | IFRS | Elimination of adjustments | Pre ¹ | IFRS | Elimination of adjustments | Pre ¹ | Pre ¹ |
| Net sales | 1,910 | - | 1,910 | 1,715 | - | 1,715 | 11.3% |
| Cost of sales | -830 | 7 | -824 | -748 | 2 | -746 | 10.5% |
| Gross profit | 1,079 | 7 | 1,086 | 967 | 2 | 970 | 12.0% |
| Marketing and selling expenses | -478 | 2 | -477 | -474 | 1 | -474 | 0.6% |
| Administration expenses | -88 | 8 | -80 | -83 | 6 | -77 | 4.2% |
| Research and development costs | -75 | - | -75 | -67 | - | -67 | 11.8% |
| Impairment losses and reversals of impairment losses on financial assets (net) | -1 | - | -1 | -3 | - | -3 | -77.1% |
| Other operating expenses and income | -21 | 2 | -18 | -24 | 11 | -13 | 42.9% |
| Operating result (EBIT)¹ | 417 | | | 316 | | | |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 195 | - | 195 | 195 | - | 195 | 0.1% |
| EBITDA¹ | 612 | | | 511 | | | |
| Restructuring expenses | 11 | -11 | - | 6 | -6 | - | |
| Integration expenses / IT expenses | 7 | -7 | - | 12 | -12 | - | |
| Gains (-) / losses (+) on the divestment of businesses | - | - | - | 2 | -2 | - | |
| Acquisition-related adjustments | - | - | - | - | - | - | |
| Other adjustments | - | - | - | - | - | - | |
| EBITDA pre¹ | 630 | - | 630 | 531 | - | 531 | 18.7% |
| of which: organic growth ¹ | | | | | | | 25.1% |
| of which: exchange rate effects | | | | | | | -5.7% |
| of which: acquisitions / divestments | | | | | | | -0.8% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

Adjusted gross profit increased by 12.0% to € 1,086 million (Q3 2019: € 970 million). This strong increase was driven by organic sales growth and higher production capacity utilization. Marketing and selling expenses remained flat despite higher logistics costs whereas administration expenses increased.

After eliminating adjustments, amortization and depreciation, EBITDA pre rose by 18.7% to € 630 million (Q3 2019: € 531 million). Organically, this key indicator rose by 25.1%. The EBITDA pre margin improved by 2 percentage points to 33.0% (Q3 2019: 31.0%)

The following table presents the composition of EBITDA pre for the first nine months of 2020 in comparison with the year-earlier period. The IFRS figures have been modified to reflect

the elimination of adjustments included in the respective functional costs.

LIFE SCIENCE

Reconciliation EBITDA pre¹

| € million | Jan.-Sept. 2020 | | | Jan.-Sept. 2019 | | | Change |
|--|-----------------|----------------------------|------------------|-----------------|----------------------------|------------------|------------------|
| | IFRS | Elimination of adjustments | Pre ¹ | IFRS | Elimination of adjustments | Pre ¹ | Pre ¹ |
| Net sales | 5,485 | - | 5,485 | 5,082 | - | 5,082 | 7.9% |
| Cost of sales | -2,349 | 7 | -2,342 | -2,191 | 3 | -2,187 | 7.1% |
| Gross profit | 3,136 | 7 | 3,143 | 2,891 | 3 | 2,894 | 8.6% |
| Marketing and selling expenses | -1,464 | 2 | -1,462 | -1,434 | 2 | -1,432 | 2.1% |
| Administration expenses | -278 | 29 | -248 | -239 | 12 | -228 | 9.2% |
| Research and development costs | -226 | - | -226 | -199 | - | -198 | 13.9% |
| Impairment losses and reversals of impairment losses on financial assets (net) | -1 | - | -1 | -3 | - | -3 | -64.9% |
| Other operating expenses and income | -20 | -23 | -44 | -66 | 28 | -38 | 14.8% |
| Operating result (EBIT)¹ | 1,148 | | | 951 | | | |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 590 | - | 590 | 585 | - | 585 | 0.9% |
| EBITDA¹ | 1,737 | | | 1,536 | | | |
| Restructuring expenses | 14 | -14 | - | 11 | -11 | - | |
| Integration expenses / IT expenses | 30 | -30 | - | 28 | -28 | - | |
| Gains (-) / losses (+) on the divestment of businesses | - | - | - | 4 | -4 | - | |
| Acquisition-related adjustments | -30 | 30 | - | - | - | - | |
| Other adjustments | - | - | - | - | - | - | |
| EBITDA pre¹ | 1,752 | - | 1,752 | 1,580 | - | 1,580 | 10.9% |
| of which: organic growth ¹ | | | | | | | 14.4% |
| of which: exchange rate effects | | | | | | | -2.9% |
| of which: acquisitions / divestments | | | | | | | -0.6% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, adjusted gross profit increased by 8.6% to € 3,143 million (January-September 2019: € 2,894 million). This increase was mainly driven by strong sales growth in the Process Solutions business unit.

After eliminating adjustments, amortization and depreciation, EBITDA pre rose by 10.9% to € 1,752 million (January-September 2019: € 1,580 million), reflecting the strong performance of the Life Science business. Organically, EBITDA pre increased by as much as 14.4% in the first nine months of 2020. At 31.9%, the EBITDA pre margin also rose (January-September 2019: 31.1%).

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the third quarter of 2020, Life Science generated business free cash flow of € 566 million (Q3 2019: € 410 million). This

development was mainly driven by the increase in EBITDA pre and a favorable development of inventories in the third quarter of 2020 compared with the year-earlier quarter.

LIFE SCIENCE**Business free cash flow¹**

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|--|------------|------------|--------------|-----------------|-----------------|--------------|
| EBITDA pre ¹ | 630 | 531 | 18.7% | 1,752 | 1,580 | 10.9% |
| Investments in property, plant and equipment, software as well as advance payments for intangible assets | -105 | -76 | 37.0% | -245 | -214 | 14.6% |
| Changes in inventories | 49 | -81 | > 100.0% | -73 | -230 | -68.4% |
| Changes in trade accounts receivable and receivables from royalties and licenses | 5 | 51 | -89.4% | -110 | -97 | 13.6% |
| Lease payments ² | -14 | -14 | -1.8% | -41 | -38 | 6.4% |
| Business free cash flow¹ | 566 | 410 | 38.0% | 1,284 | 1,002 | 28.2% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Excluding payments for low-value leases and interest components included in lease payments.

In the first nine months of 2020, Life Science generated business free cash flow of € 1,284 million (January-September 2019: € 1,002 million). This increase was primarily driven by

higher EBITDA pre and the development of inventories, partly offset by higher capital spending.

Performance Materials

PERFORMANCE MATERIALS

Key figures

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|--------------------------------------|---------|---------|----------|-----------------|-----------------|--------|
| Net sales | 836 | 583 | 43.4% | 2,550 | 1,776 | 43.6% |
| Operating result (EBIT) ¹ | 75 | 98 | -23.0% | 162 | 293 | -44.8% |
| Margin (% of net sales) ¹ | 9.0% | 16.8% | | 6.3% | 16.5% | |
| EBITDA ¹ | 227 | 169 | 33.9% | 697 | 488 | 42.9% |
| Margin (% of net sales) ¹ | 27.1% | 29.1% | | 27.3% | 27.5% | |
| EBITDA pre ¹ | 254 | 177 | 43.3% | 778 | 560 | 38.8% |
| Margin (% of net sales) ¹ | 30.4% | 30.5% | | 30.5% | 31.6% | |
| Business free cash flow ¹ | 253 | 121 | > 100.0% | 641 | 446 | 43.7% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In the third quarter of 2020, net sales of the Performance Materials business sector increased by 43.4% to € 836 million (Q3 2019: € 583 million). This growth was attributable to

the net sales contribution from the acquisitions of Versum Materials and Intermolecular (51.6%). Sales growth was tempered by an organic sales decrease of -5.4%. Unfavorable foreign exchange effects had an impact of -2.8% on net sales.

PERFORMANCE MATERIALS

Net sales by business unit

| € million | Q3 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Q3 2019 ² | Share |
|------------------------------|------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|----------------------|-------------|
| Display Solutions | 277 | 33% | -9.9% | -2.2% | - | -12.1% | 316 | 54% |
| Semiconductor Solutions | 471 | 56% | 8.0% | -2.9% | > 100.0% | > 100.0% | 162 | 28% |
| Surface Solutions | 87 | 11% | -12.3% | -4.2% | - | -16.5% | 104 | 18% |
| Other | 0 | - | -54.2% | -0.5% | - | -54.7% | 1 | - |
| Performance Materials | 836 | 100% | -5.4% | -2.8% | 51.6% | 43.4% | 583 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Previous year's figures have been adjusted owing to an internal realignment.

The Semiconductor Solutions business unit was transformed through the acquisitions of Versum Materials and Intermolecular in the fourth quarter of 2019. As a result, the share of Performance Materials sales attributable to Semiconductor Solutions increased from 28% to 56%. Semiconductor Solutions now comprises two new businesses, namely Semiconductor Materials and Delivery Systems & Services. Semiconductor Materials will continue to focus on the development and commercialization of material-based solutions for the semiconductor industry. Delivery Systems & Services focuses on developing and operating delivery systems for semiconductor manufacturers. Additionally, the unit offers services to support the equipment install base and safe handling of the specialty materials that flow through it.

Excluding the effects of the Versum Materials and Intermolecular acquisitions, the Semiconductor Solutions business unit achieved organic growth of 8.0% in the third quarter of 2020. This was mainly driven by improved market conditions compared with the challenging environment of 2019. Exchange rate effects were unfavorable at -2.9%. The Covid-19 pandemic only had a minor negative impact on the Semiconductor Solutions business unit in the third quarter of 2020.

The Display Solutions business unit, consisting mainly of the businesses with liquid crystals, photoresists for display applications as well as OLED materials, recorded a sales decrease of -12.1% in the third quarter of 2020. Following a markedly weaker second quarter of 2020, at -9.9% the organic decrease has moved significantly closer to the expectations

for medium-term sales performance. Nevertheless, weaker end user demand owing to the Covid-19 pandemic resulted in continued lower customer production capacity utilization. In addition, unfavorable foreign exchange effects of -2.2% lowered sales.

Net sales of the Surface Solutions business unit declined by a total of -16.5% in the third quarter of 2020. The organic

decrease of -12.3% was mainly the result of continued weakness in the automotive and decorative cosmetic markets, which remain heavily impacted by the Covid-19 crisis. Foreign exchange headwinds of -4.2% also had an adverse impact.

Net sales of the business sector by region developed in the third quarter of 2020 as follows:

PERFORMANCE MATERIALS

Net sales by region

| € million | Q3 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Q3 2019 | Share |
|------------------------------|------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|------------|-------------|
| Europe | 56 | 7% | -18.3% | -0.2% | 30.3% | 11.9% | 50 | 9% |
| North America | 122 | 14% | -6.1% | -4.5% | > 100.0% | > 100.0% | 52 | 9% |
| Asia-Pacific (APAC) | 642 | 77% | -4.2% | -2.5% | 43.7% | 37.0% | 469 | 80% |
| Latin America | 8 | 1% | 9.3% | -21.9% | 2.5% | -10.2% | 9 | 1% |
| Middle East and Africa (MEA) | 8 | 1% | -17.8% | -3.6% | > 100.0% | > 100.0% | 3 | 1% |
| Performance Materials | 836 | 100% | -5.4% | -2.8% | 51.6% | 43.4% | 583 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

In the first nine months of 2020, net sales of the Performance Materials business sector increased by 43.6% to € 2,550 million (January-September 2019: € 1,776 million). The portfolio effect of the Versum Materials and Intermolecular acquisitions on net sales was 51.3%. The organic sales decrease of -8.2% was primarily attributable to Covid-19-related challenges in the Display Solutions and Surface Solutions business units. This was partially offset by growth in Semiconductor Solutions. Display Solutions saw an organic sales decrease of -13.7% in the first nine months of 2020, which was primarily driven by two factors. First, Display Solutions benefited in the first nine months of 2019 from projects by panel manufacturers in China to ramp

up production capacities. Second, the Covid-19 pandemic has adversely impacted end-user demand, causing lower customer production capacity utilization. Exchange rates had a negligible benefit of 0.7%. Surface Solutions recorded an organic sales decrease of -16.8% as Covid-19-related weakness in both the automotive and cosmetic markets continued to present significant challenges. Unfavorable foreign exchange rates had an impact of -1.2%. Semiconductor Solutions recorded organic growth of 9.6% in the first nine months of 2020. This organic growth stemmed from a rebound in market demand over 2019. Foreign exchange effects contributed 1.4% to the business unit's net sales in the first nine months of 2020.

PERFORMANCE MATERIALS

Net sales by business unit

| € million | Jan.-Sept. 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Jan.-Sept. 2019 ² | Share |
|------------------------------|-----------------|-------------|-----------------------------|-----------------------|----------------------------|--------------|------------------------------|-------------|
| Display Solutions | 844 | 33% | -13.7% | 0.7% | - | -13.1% | 971 | 55% |
| Semiconductor Solutions | 1,431 | 56% | 9.6% | 1.4% | > 100.0% | > 100.0% | 469 | 26% |
| Surface Solutions | 274 | 11% | -16.8% | -1.2% | - | -18.0% | 334 | 19% |
| Other | 1 | - | -50.4% | 0.3% | - | -50.1% | 1 | - |
| Performance Materials | 2,550 | 100% | -8.2% | 0.5% | 51.3% | 43.6% | 1,776 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Previous year's figures have been adjusted owing to an internal realignment.

In the first nine months of 2020, sales by region developed as follows:

PERFORMANCE MATERIALS

Net sales by region

| € million | Jan.–Sept. 2020 | Share | Organic growth ¹ | Exchange rate effects | Acquisitions / divestments | Total change | Jan.–Sept. 2019 | Share |
|---------------------------------|--------------------|-------------|--------------------------------|--------------------------|-------------------------------|--------------|--------------------|-------------|
| Europe | 185 | 7% | -13.6% | - | 29.1% | 15.6% | 160 | 9% |
| North America | 373 | 15% | -5.3% | 0.2% | > 100.0% | > 100.0% | 162 | 9% |
| Asia-Pacific (APAC) | 1,942 | 76% | -8.0% | 0.8% | 43.9% | 36.7% | 1,420 | 80% |
| Latin America | 21 | 1% | -4.7% | -13.7% | 5.1% | -13.3% | 24 | 1% |
| Middle East and Africa (MEA) | 29 | 1% | -8.4% | -1.2% | > 100.0% | > 100.0% | 9 | 1% |
| Performance Materials | 2,550 | 100% | -8.2% | 0.5% | 51.3% | 43.6% | 1,776 | 100% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

The following table presents the composition of EBITDA pre for the reporting period in comparison with the year-earlier quarter.

The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

PERFORMANCE MATERIALS

Reconciliation EBITDA pre¹

| € million | Q3 2020 | | | Q3 2019 | | | Change |
|---|------------|-------------------------------|------------------|------------|-------------------------------|------------------|--------------|
| | IFRS | Elimination of adjustments | Pre ¹ | IFRS | Elimination of adjustments | Pre ¹ | |
| Net sales | 836 | - | 836 | 583 | - | 583 | 43.4% |
| Cost of sales | -519 | 14 | -505 | -315 | 5 | -310 | 62.9% |
| Gross profit | 317 | 14 | 331 | 268 | 5 | 273 | 21.3% |
| Marketing and selling expenses | -133 | - | -132 | -61 | -1 | -62 | > 100.0% |
| Administration expenses | -38 | 2 | -36 | -30 | 7 | -23 | 57.8% |
| Research and development costs | -65 | 1 | -65 | -48 | -11 | -59 | 10.3% |
| Impairment losses and reversals of impairment losses on financial assets (net) | - | - | - | 1 | - | 1 | -100.0% |
| Other operating expenses and income | -5 | 10 | 6 | -32 | 16 | -15 | > 100.0% |
| Operating result (EBIT)¹ | 75 | | | 98 | | | |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 151 | -1 | 151 | 71 | -8 | 63 | > 100.0% |
| EBITDA¹ | 227 | | | 169 | | | |
| Restructuring expenses | 17 | -17 | - | 1 | -1 | - | |
| Integration expenses / IT expenses | 10 | -10 | - | 7 | -7 | - | |
| Gains (-) / losses (+) on the divestment of businesses | 1 | -1 | - | - | - | - | |
| Acquisition-related adjustments | - | - | - | - | - | - | |
| Other adjustments | - | - | - | - | - | - | |
| EBITDA pre¹ | 254 | | 254 | 177 | | 177 | 43.3% |
| of which: organic growth ¹ | | | | | | | -2.9% |
| of which: exchange rate effects | | | | | | | -6.0% |
| of which: acquisitions / divestments | | | | | | | 52.2% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

Adjusted gross profit for the Performance Materials business sector was € 331 million in the third quarter of 2020 (Q3 2019: € 273 million). The Versum acquisition was again the key driver of the 21.3% increase over the year-earlier quarter. At 39.6%, adjusted gross margin was lower than in the prior year period (Q3 2019: 46.8%). The decrease in the gross margin was primarily due to the new business composition of Performance Materials with the inclusion of Versum Materials and the additional depreciation and amortization associated with acquisition accounting (purchase price allocation). Excluding adjustments, the operating result (EBIT) decreased by € 23 million to € 75 million in the third quarter of 2020 (Q3 2019: € 98 million). This decrease was mainly driven by the additional amortization and depreciation in the third quarter of 2020, offset by additional sales from Versum. The increase in marketing and selling expenses and administration expenses was attributable to the additional costs of the Versum and Intermolecular organizations. After eliminating adjustments,

the decrease in research and development costs from the successful implementation of the "Bright Future" transformation program was exceeded by additional expenses from the Versum and Intermolecular organizations. EBITDA pre of the business sector grew by 43.3% to € 254 million (Q3 2019: € 177 million). Additional EBITDA pre from the acquisitions (52.2%) more than offset negative foreign exchange effects (-6.0%) and the organic decline in EBITDA pre (-2.9%). The organic decline was mainly attributable to the decrease in sales related to the Covid-19 pandemic as discussed above. At 30.4%, the EBITDA pre margin was on par with the year-earlier period (Q3 2019: 30.5%).

The following table presents the composition of EBITDA pre for the first nine months of 2020 in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

PERFORMANCE MATERIALS

Reconciliation EBITDA pre¹

| € million | Jan.-Sept. 2020 | | | Jan.-Sept. 2019 | | | Change |
|--|-----------------|----------------------------|------------------|-----------------|----------------------------|------------------|------------------|
| | IFRS | Elimination of adjustments | Pre ¹ | IFRS | Elimination of adjustments | Pre ¹ | Pre ¹ |
| Net sales | 2,550 | - | 2,550 | 1,776 | - | 1,776 | 43.6% |
| Cost of sales | -1,506 | 37 | -1,469 | -960 | 23 | -936 | 56.9% |
| Gross profit | 1,044 | 37 | 1,080 | 816 | 23 | 839 | 28.7% |
| Marketing and selling expenses | -402 | 4 | -398 | -193 | 6 | -187 | > 100.0% |
| Administration expenses | -121 | 11 | -110 | -78 | 9 | -69 | 58.5% |
| Research and development costs | -205 | -1 | -206 | -194 | 22 | -172 | 19.6% |
| Impairment losses and reversals of impairment losses on financial assets (net) | - | - | - | - | - | - | - |
| Other operating expenses and income | -153 | 142 | -11 | -58 | 21 | -37 | -70.5% |
| Operating result (EBIT)¹ | 162 | | | 293 | | | |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 535 | -112 | 423 | 195 | -8 | 187 | > 100.0% |
| EBITDA¹ | 697 | | | 488 | | | |
| Restructuring expenses | 27 | -27 | - | 61 | -61 | - | |
| Integration expenses / IT expenses | 34 | -34 | - | 11 | -11 | - | |
| Gains (-) / losses (+) on the divestment of businesses | 1 | -1 | - | - | - | - | |
| Acquisition-related adjustments | 20 | -20 | - | - | - | - | |
| Other adjustments | - | - | - | - | - | - | |
| EBITDA pre¹ | 778 | - | 778 | 560 | - | 560 | 38.8% |
| of which: organic growth ¹ | | | | | | | -14.1% |
| of which: exchange rate effects | | | | | | | 0.9% |
| of which: acquisitions / divestments | | | | | | | 52.0% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

At € 1,080 million, adjusted gross profit for the Performance Materials business sector in the first nine months of 2020 rose by 28.7% over the previous year (January-September 2019: € 839 million). The increase was primarily due to the acquisition of Versum. At € 162 million, the operating result (EBIT) was € 131 million lower than in the year-earlier period (January-September 2019: € 293 million). The decrease

primarily related to additional amortization and impairment losses partially offset by the EBIT contributed by the Versum acquisition. EBITDA pre of the business sector rose by 38.8% to € 778 million (January-September 2019: € 560 million). At 30.5%, the EBITDA pre margin was below the 31.6% seen in the prior-year period.

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the third quarter of 2020, Performance Materials generated business free cash flow of € 253 million (Q3 2019:

€ 121 million). Cash flow contributed by the acquisition of Versum as well as lower inventories were the key drivers.

PERFORMANCE MATERIALS**Business free cash flow¹**

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|--|------------|------------|--------------------|-----------------|-----------------|--------------|
| EBITDA pre ¹ | 254 | 177 | 43.3% | 778 | 560 | 38.8% |
| Investments in property, plant and equipment, software as well as advance payments for intangible assets | -38 | -26 | 47.0% | -133 | -69 | 93.1% |
| Changes in inventories | 43 | -14 | > 100.0% | 24 | -70 | > 100.0% |
| Changes in trade accounts receivable and receivables from royalties and licenses | -2 | -14 | -83.1% | 5 | 31 | -85.1% |
| Lease payments ² | -4 | -2 | 87.4% | -13 | -7 | 94.2% |
| Elimination first-time consolidation of Versum / Intermolecular | - | - | - | -19 | - | - |
| Business free cash flow¹ | 253 | 121 | > 100.0% | 641 | 446 | 43.7% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

² Excluding payments for low-value leases and interest components included in lease payments.

In the first nine months of 2020, business free cash flow rose by 43.7% to € 641 million (January-September 2019: € 446 million). The primary reasons for the increase were the

cash flow contributed by the Versum acquisition as well as the development of inventories.

Corporate and Other

Corporate and Other comprises administration expenses for Group functions that cannot be directly allocated to the business sectors, such as Finance, Procurement, Legal, Communications, and Human Resources. Corporate and Other addi-

tionally encompasses expenses for central, non-allocated IT functions, including expenses related to the expansion and harmonization of IT systems within the Merck Group as well as research and development costs spanning business sectors.

CORPORATE AND OTHER

Key figures

| € million | Q3 2020 | Q3 2019 | Change | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Change |
|--------------------------------------|---------|---------|--------|-----------------|-----------------|--------|
| Operating result (EBIT) ¹ | -133 | -131 | 1.3% | -434 | -437 | -0.5% |
| EBITDA ¹ | -111 | -111 | -0.5% | -372 | -380 | -2.2% |
| EBITDA pre ¹ | -80 | -98 | -18.7% | -316 | -322 | -1.9% |
| Business free cash flow ¹ | -94 | -110 | -14.3% | -365 | -349 | 4.6% |

¹ Not defined by International Financial Reporting Standards (IFRSs).

After eliminating adjustments, administration expenses amounted to € 70 million in the third quarter of 2020 (Q3 2019: € 65 million). Research and development costs spanning business sectors, for instance expenses for the Innovation Center, were allocated to Corporate and Other in the amount of € 12 million in the third quarter of 2020 (Q3 2019: € 14 million). After eliminating adjustments, other operating expenses (net) declined to € 22 million in the third quarter of 2020 – predominantly due to the positive development of the

foreign exchange result (Q3 2019: € 37 million). After eliminating depreciation, amortization and adjustments, EBITDA pre totaled € -80 million in the third quarter of 2020 (Q3 2019: € -98 million). Negative business free cash flow also improved to € -94 million (Q3 2019: € -110 million). In the first nine months of 2020, EBITDA pre of Corporate and Other totaled € -316 million (January-September 2019: € -322 million). Business free cash flow amounted to € -365 million in the first nine months of 2020 (January-September 2019: € -349 million).

Report on Expected Developments

With the half-yearly financial report as of June 30, 2020, we updated our forecast for the development of net sales and EBITDA pre for the Merck Group and the individual business sectors in 2020.

The divestment of Allergopharma to Dermapharm Holding SE ("Dermapharm") closed on March 31, 2020. The allergy business of Merck in Europe was transferred to Dermapharm on March 31, 2020. The transfer of the Allergopharma business in China closed on August 31, 2020. The following forecast already reflects this divestment and correspondingly shows a portfolio effect from this transaction over 2019, which however is not expected to be material at Group level.

In the United States, a subsidiary of Merck KGaA was involved in patent litigation with Biogen Inc., USA. Biogen sued Merck for having allegedly infringed a patent in connection with Rebif®, a Merck product. On September 28, 2020, the U.S. Court of Appeals for the Federal Circuit set aside the first-instance decision and declared Biogen's patent invalid. Therefore, a provision amounting to € 365 million for the patent litigation was released. The income from the release

of the provision led to a corresponding increase in EBITDA pre that was not included in the forecast published on June 30, 2020.

Furthermore, in the context of the global outbreak of the Covid-19 pandemic, we confirm the assumptions made in the outlook published in the quarterly statement as of March 31, 2020 and in the half-yearly financial report as of June 30, 2020. In this context, we assume that our businesses will be impacted to varying degrees. Adverse effects can be seen particularly in Performance Materials and Healthcare, whereas we expect positive effects in Life Science, particularly in the Process Solutions business.

The past several weeks have seen stronger outbreaks with potential further widespread lockdowns in many countries. This is associated with further negative consequences for the economic recovery. Owing to the inherent uncertainty that these measures involve, the potential negative impacts of these developments on our businesses have not been taken into account in this forecast.

Merck Group

FORECAST FOR THE MERCK GROUP

| € million | Actual results 2019 | Forecast for 2020 | Key assumptions |
|-------------------------|---------------------|---|--|
| Net sales | 16,152 | ~17,100 to 17,500 <ul style="list-style-type: none"> Organic growth between 4% and 5% Portfolio effect in the mid single-digit percentage range Exchange rate effect -2% to -3% | <ul style="list-style-type: none"> Organic growth driven by Life Science, contribution from Healthcare to organic growth as well, Performance Materials declining despite growth in Semiconductor Solutions Positive portfolio effect in the mid single-digit percentage range, mainly resulting from the acquisition of Versum Materials Foreign exchange effect due to the U.S. dollar and emerging market currencies |
| EBITDA pre | 4,385 | ~5,050 to 5,250 (thereof income from the release of a provision for a patent dispute + 365 million) <ul style="list-style-type: none"> Organic growth: between 14% and 16% (excluding income from a release of a provision between 6% and 8%) Positive portfolio effect in the mid single-digit percentage range Negative foreign exchange effect of -3% to -5% | <ul style="list-style-type: none"> Organic growth in Life Science and Healthcare softened by declining business in Performance Materials Realization of synergies from the integration of Versum Materials in Performance Materials ahead of plan Negative foreign exchange effect due to the U.S. dollar and emerging market currencies |
| Business free cash flow | 2,732 | ~3,475 to 3,775 (thereof income from the release of a provision for a patent dispute + 365 million) Growth in the low- to mid-thirties percentage range (excluding provision release: increase in the high teens to low twenties percentage range) | Rise in EBITDA pre including the contribution from Versum Materials and positive effects from working capital compensate for higher investments in property, plant and equipment |

NET SALES

Following the second quarter, in which the effects of the Covid-19 pandemic were clearly visible, the third quarter developed more strongly than previously expected. Consequently, for 2020 we now expect an organic increase of 4% to 5% over 2019 (previously slight to moderate organic increase). Here,

Life Science will remain a major driver of this organic growth. Following a stronger third quarter and despite significantly negative effects from the Covid-19 pandemic, Healthcare will also contribute positively to the development. The development will be weakened by the organic decline in our Performance Materials business, which continues to suffer from the negative

impacts of the Covid-19 pandemic. In the first three quarters, the effect of the acquisition of Versum Materials is being reported as a portfolio effect, which we still forecast in the mid single-digit percentage range at Group level. With regard to exchange rate developments, we continue to expect a volatile environment due to political and macroeconomic developments. In contrast to our previous forecast given on June 30, 2020, we now anticipate a stronger negative effect of -2% to -3% owing to the latest developments. This is mainly due to the development of the U.S. dollar, the Chinese renminbi as well as the currencies of numerous growth markets, especially in Latin America. We expect a euro-U.S. dollar exchange rate in a range of 1.13 to 1.15. Overall, we therefore forecast net sales of € 17.1 billion to € 17.5 billion (2019: € 16.15 billion) for the Merck Group in 2020.

EBITDA PRE

According to our expectations, in 2020 Group EBITDA pre will be in a corridor between € 5.05 billion and € 5.25 billion (2019: € 4.38 billion). The increase is due in particular to the strong operating performance of the businesses. Accordingly, excluding the release of the provision for the patent dispute with Biogen, we expect organic growth between 6% and 8%.

This development will be driven particularly by Life Science as well as Healthcare, whereas we continue to expect an organic decline in the Performance Materials business. In addition, the release of the provision of € 365 million for the patent dispute with Biogen had a positive effect. Overall, and in contrast to the expectations in the second quarter, we thus expect an organic increase of 14% to 16% in comparison with the previous year (previously a slight to moderate organic increase). Nevertheless, the forecast for earnings includes significant adversity stemming from strong government restrictions of public life in the context of the Covid-19 pandemic.

The portfolio effect from the acquisition of Versum Materials is still expected to be in the mid single-digit percentage range and will lead to a slight improvement in the margin of the Merck Group. The assumed foreign exchange development is forecast to have a negative effect of between -3% and -5% on Group EBITDA pre; it will be seen particularly in the Healthcare and Life Science businesses. In particular, the developments stemming from the U.S. dollar and a large number of growth markets will have an adverse impact on earnings and more than offset the positive effects stemming from individual Asian currencies.

Healthcare

FORECAST FOR THE HEALTHCARE BUSINESS SECTOR

| € million | Actual results 2019 | Forecast for 2020 | Key assumptions |
|-------------------------|---------------------|---|--|
| Net sales | 6,714 | ~6,500 to 6,700 <ul style="list-style-type: none"> Organic growth of 2% to 3% Negative portfolio effect in the mid double-digit million range Foreign exchange effect between -3% and -4% | <ul style="list-style-type: none"> Substantial growth contribution by our newly approved products, particularly Mavenclad® Decline in some areas of the core business owing to strong impacts of the Covid-19 pandemic, particularly on the Fertility franchise, as well as further declines for Rebif® Negative portfolio effect from the divestment of Allergopharma Negative foreign exchange effect owing to the development of the U.S. dollar and foreign exchange developments in most growth markets |
| EBITDA pre | 1,922 | ~2,220 to 2,290 (thereof income from the release of a provision for a patent dispute + 365 million) <ul style="list-style-type: none"> Organic growth between 25% and 27% (excluding income from the release of a provision between 6% and 8%) Foreign exchange effect between -7% and -9% | <ul style="list-style-type: none"> Notably strong positive contributions to earnings by our new products, especially Mavenclad® Continued expected sales decline of Rebif® mitigated by contributions from new products Positive development of the product mix despite significant negative effects of the Covid-19 pandemic in the Fertility franchise Marketing and selling expenses as well as research and development costs are decreasing both as a percentage of sales and in absolute terms due to rigorous cost management and strict pipeline prioritization and contributing to the growth of EBITDA pre Negative foreign exchange effect on account of the development of the U.S. dollar and currency developments in most growth markets |
| Business free cash flow | 1,252 | ~1,625 to 1,775 (thereof from the release of a provision for a patent dispute + 365 million) <p>Growth in the mid-thirties percentage range (excluding release of a provision: increase in the mid single-digit percentage range)</p> | <ul style="list-style-type: none"> Increase in EBITDA pre driven by the release of the provision for the patent dispute with Biogen as well as positive effects from working capital management Offset by a slight increase in investments in property, plant and equipment |

NET SALES

For the Healthcare business sector, we currently assume that in 2020, net sales will grow organically by 2% to 3% (previously slight organic growth). Here we expect significantly negative effects from the Covid-19 pandemic on the core business, particularly in the Fertility franchise. We confirm the previously communicated decline in Rebif® sales. We expect positive contributions to sales growth by the products from General Medicine & Endocrinology, primarily attributable to performance in growth markets. Likewise, we expect our new products to contribute significantly to organic growth. For 2020, we believe that both Mavenclad® and Bavencio® will each generate a further significant increase in sales, albeit not as high as assumed before the outbreak of the Covid-19 pandemic. The stated growth expectations can therefore more than offset the negative effects caused by the pandemic. The divestment of Allergopharma will result in a negative portfolio effect in the mid double-digit million range. Unfavorable foreign exchange developments in multiple growth markets, as well as of the U.S. dollar, will be reflected in an expected impact of -3% to -4%.

EBITDA PRE

Excluding income from the release of a provision, organic growth in Healthcare is a strong 6% to 8% (previously organically stable), despite the impacts of the Covid-19 pandemic. This development is attributable to significant earnings contributions from our new products, especially Mavenclad®.

The negative earnings effects in the core business owing to the expected decline in sales of Rebif® will now amplify owing to the additional sales decline in the Fertility franchise. However, the new products will still have a mitigating effect, albeit to a lower extent owing to the negative impact of the

Covid-19 pandemic. In addition, we will continue our rigorous cost management and strict pipeline prioritization. We therefore expect marketing and selling expenses as well as research and development costs to decline both as a percentage of sales and in absolute terms. Research and development costs will remain dependent on the development of clinical data and further expected study results. The year-earlier period included in profit and loss the upfront cash payment from the global strategic alliance with Pfizer for Bavencio®. Furthermore, the previous year included positive effects from milestone payments. By contrast, the upfront cash payment in the context of the global strategic alliance with GlaxoSmithKline plc (GSK) for the joint development and marketing of bintrafusp alfa will have a positive earnings effect in the high double-digit euro millions in 2020. The amount generally depends on the cost evolution and on reaching development milestones and will be recognized in other operating income. Moreover, the forecast for Healthcare includes effects from active portfolio management of up to a mid double-digit million euro amount. Overall, the contribution to earnings attributable to one-time effects will be significantly below the prior-year figure. In total, due to the strong business performance, we expect to more than offset the lower year-on-year earnings contribution from one-time effects and thus significantly increase EBITDA pre. We are therefore raising the forecast published on June 30, 2020.

Owing to a court decision on the patent dispute with Biogen Inc., we were able to release a provision amounting to € 365 million. Including this income, for the business sector, we forecast EBITDA pre in a range of € 2.22 billion to € 2.29 billion, which will be reflected in organic growth of 25% to 27%.

By contrast, we expect foreign exchange to negatively impact EBITDA pre by between -7% and -9%.

Life Science

FORECAST FOR THE LIFE SCIENCE BUSINESS SECTOR

| € million | Actual results 2019 | Forecast for 2020 | Key assumptions |
|-------------------------|---------------------|--|--|
| Net sales | 6,864 | ~7,250 to 7,450 <ul style="list-style-type: none"> Organic growth between 9% and 10% Exchange rate effect of -2% to -3% | <ul style="list-style-type: none"> All businesses contribute to the positive development Process Solutions to remain the strongest growth driver, accelerated by positive effect from Covid-19. Applied Solutions and Research Solutions see negative effects at the start of the disease outbreak, recover by mid-year and ultimately even contribute to full-year growth. Negative foreign exchange effect on account of the development of the U.S. dollar and currencies in most growth markets |
| EBITDA pre | 2,129 | ~2,300 to 2,370 <ul style="list-style-type: none"> Organic growth between 13% and 15% Foreign exchange effect between -3% and -4% | <ul style="list-style-type: none"> Strong sales growth through positive Covid-19 effects drives organic earnings growth and margin improvement Negative foreign exchange effect owing to exchange rate developments in most growth markets |
| Business free cash flow | 1,375 | ~1,600 to 1,750 Increase in the low twenties percentage range | <ul style="list-style-type: none"> Rise in EBITDA pre Improved management of working capital Offset by higher capital spending on strategic projects |

NET SALES

For our Life Science business sector, we now assume net sales will grow organically by 9% to 10% in 2020 compared with the previous year (previously strong organic growth). Process Solutions will remain the strongest growth driver, accelerated by positive Covid-19 effects. Applied Solutions and Research Solutions see negative effects at the start of the disease outbreak, recover by mid-year and ultimately even contribute to full-year growth. As previously stated, we do not expect that the acquisitions of FloDesign Sonics Inc. and BSSN Software GmbH will have a material portfolio effect. Negative effects of -2% to -3% will result from the U.S. dollar and currencies of various growth markets.

EBITDA PRE

We are raising our forecast for EBITDA pre of the Life Science business sector in 2020 and expect organic growth of 13% to 15% (previously strong organic growth). The persistently dynamic demand trend and a favorable product mix will contribute to the organic earnings growth and a further slight margin increase. For Life Science, we expect foreign exchange effects in 2020 of between -3% and -4% owing to the development of various emerging market currencies.

Performance Materials**FORECAST FOR THE PERFORMANCE MATERIALS BUSINESS SECTOR**

| € million | Actual results 2019 | Forecast for 2020 | Key assumptions |
|-------------------------|---------------------|--|---|
| Net sales | 2,574 | ~3,250 to 3,400 <ul style="list-style-type: none"> Organic decline between -4% and -5% Portfolio effect in the mid-thirties percentage range Exchange rate effect of 0% to -2% | <ul style="list-style-type: none"> Continued strong growth momentum in Semiconductor Solutions Continued price decline in Liquid Crystals business Significant decrease in Surface Solutions Overall significant negative effects visible from the Covid-19 pandemic Portfolio effect due to Versum Materials in the mid-thirties percentage range, no material portfolio effect from Intermolecular Negative foreign exchange effect primarily due to the development of the U.S. dollar and the Chinese renminbi |
| EBITDA pre | 803 | ~980 to 1,030 <ul style="list-style-type: none"> Organic decline between -6% and -9% Portfolio effect in the mid-thirties percentage range Foreign exchange effect between -1% and -3% | <ul style="list-style-type: none"> Growth in Semiconductor Solutions cannot offset price decline in Liquid Crystals or the significantly adverse impact of the Covid-19 pandemic despite strict cost discipline Versum Materials earnings contribution in the mid-thirties percentage range has a positive margin effect Realization of synergies of around € 30 million from the integration of Versum Materials ahead of plan Negative foreign exchange effects owing to foreign exchange developments stemming from the U.S. dollar and the Chinese renminbi |
| Business free cash flow | 641 | ~770 to 870 Increase with growth rates in the high twenties percentage range | Rise in EBITDA pre including the contribution from Versum Materials, softened by higher capital spending |

NET SALES

For our Performance Materials business sector, we have raised our expectations and now forecast for 2020 net sales to decline organically only by between -4% and -5% (previously moderate to strong organic decline). For our Semiconductor Materials business, we continue to expect strong growth dynamics as stated in our previous forecast. By contrast, in addition to the continued price erosion owing to price pressure common in the industry, our Liquid Crystals business is suffering from the adverse effects in connection with the economic slowdown due to the Covid-19 pandemic. This slowdown in the dynamics of the global economy will also lead to significantly deteriorating business prospects for our Surface Solutions business in 2020.

Thanks to Versum Materials, we expect a portfolio effect in the mid-thirties percentage range in first three quarters of 2020. Moreover, the acquisition of Intermolecular closed on September 20, 2019. We do not estimate the resulting portfolio effect to be material.

Due to the development of the euro against the U.S. dollar as well as the development of several currencies of Asian growth markets, we expect a foreign exchange effect of 0% to -2%.

EBITDA PRE

For our Performance Materials business sector, in comparison with the previous year, we expect the economic slowdown within the scope of the Covid-19 pandemic to have a significantly

adverse impact on EBITDA pre. The strong growth of our Semiconductor Materials business will not be able to compensate for this. As a result of additional high cost discipline, we now assume that organic EBITDA pre will decline only by between -6% and -9% (previously low teens range). In our estimation, the portfolio effect of Versum Materials will lead to growth in the mid-thirties percentage range, slightly improving the margin of the business. We are slightly ahead of our own plan with respect to the realization of synergies and expect approximately € 30 million before year-end. This forecast includes this amount.

As with net sales, negative foreign exchange effects are mainly attributable to the development of the U.S. dollar and the Chinese renminbi. As expected, they will range from -1% to -3%.

Corporate and Other

Overall, in line with our estimation in the second quarter, we forecast a slight decline in corporate costs in 2020 in comparison with the previous year. The forecast figures will be adversely affected in the reporting period by currency hedging.

MERCK GROUP

Forecast for FY 2020

| € million | Net sales | EBITDA pre | Business free cash flow |
|-----------------------|---|--|---|
| Merck Group | ~17,100 to 17,500 <ul style="list-style-type: none"> Organic growth between 4% and 5% Portfolio effect in the mid single-digit percentage range Exchange rate effect -2% to -3% | ~5,050 to 5,250 (thereof income from the release of a provision for a patent dispute + 365 million) <ul style="list-style-type: none"> Organic growth between 14% and 16% (excluding income from a release of a provision between 6% and 8%) Positive portfolio effect in the mid single-digit percentage range Negative foreign exchange effect of -3% to -5% | ~3,475 to 3,775 (thereof from the release of a provision for a patent dispute + 365 million) <p>Growth in the low to mid-thirties percentage range (excluding release of a provision: increase in the high teens to low twenties percentage range)</p> |
| Healthcare | ~6,500 to 6,700 <ul style="list-style-type: none"> Organic growth of 2% to 3% Adverse portfolio effect in the mid double-digit million range Negative foreign exchange effect between -3% and -4% | ~2,220 to 2,290 (thereof income from the release of a provision for a patent dispute + 365 million) <ul style="list-style-type: none"> Organic growth between 25% and 27% (excluding income from the release of a provision 6% and 8%) Foreign exchange effect between -7% and -9% | ~1,625 to 1,775 (thereof income from the release of a provision for a patent dispute + 365 million) <p>Growth in the mid-thirties percentage range (excluding release of a provision: increase in the mid single-digit percentage range)</p> |
| Life Science | ~7,250 to 7,450 <ul style="list-style-type: none"> Organic growth between 9% and 10% Exchange rate effect of -2% to -3% | ~2,300 to 2,370 <ul style="list-style-type: none"> Organic growth between 13% and 15% Foreign exchange effect between -3% and -4% | ~1,600 to 1,750 <p>Increase in the low twenties percentage range</p> |
| Performance Materials | ~3,250 to 3,400 <ul style="list-style-type: none"> Organic decline between -4% and -5% Portfolio effect in the mid-thirties percentage range Exchange rate effect of 0% to -2% | ~980 to 1,030 <ul style="list-style-type: none"> Organic decline between -6% and -9% Portfolio effect in the mid-thirties percentage range Foreign exchange effect between -1% and -3% | ~770 to 870 <p>Increase with growth rates in the high twenties percentage range</p> |
| Corporate and Other | - | ~-440 to -460 <ul style="list-style-type: none"> Costs slightly below the year-earlier level | ~-510 to -550 |

EPS pre € 6.50 to € 6.80 – thereof € 0.63 from the release of a provision for patent litigation

Full-year FX assumption for 2020: € 1 = US\$ 1.13 to US\$ 1.15

Supplemental Financial Information

Consolidated Income Statement

| € million | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 |
|--|--------------|--------------|-----------------|-----------------|
| Net sales | 4,447 | 4,054 | 12,936 | 11,771 |
| Cost of sales | -1,776 | -1,478 | -5,040 | -4,316 |
| Gross profit | 2,671 | 2,576 | 7,896 | 7,455 |
| Marketing and selling expenses | -992 | -1,100 | -3,085 | -3,348 |
| Administration expenses | -280 | -267 | -867 | -820 |
| Research and development costs | -531 | -558 | -1,630 | -1,638 |
| Impairment losses and reversals of impairment losses on financial assets (net) | -1 | -1 | - | -3 |
| Other operating income | 453 | 142 | 679 | 494 |
| Other operating expenses | -154 | -182 | -619 | -535 |
| Operating result (EBIT)¹ | 1,167 | 608 | 2,374 | 1,605 |
| Finance income | 7 | 26 | 25 | 51 |
| Finance costs | -109 | -160 | -327 | -360 |
| Profit before income tax | 1,065 | 473 | 2,071 | 1,297 |
| Income tax | -258 | -134 | -518 | -337 |
| Profit after tax from continuing operations | 806 | 339 | 1,553 | 960 |
| Profit after tax from discontinued operation | - | 2 | - | 43 |
| Profit after tax | 806 | 342 | 1,553 | 1,002 |
| thereof: attributable to Merck KGaA shareholders (net income) | 805 | 343 | 1,551 | 1,002 |
| thereof: attributable to non-controlling interests | 1 | -1 | 2 | - |
| Earnings per share (in €) | | | | |
| Basic | 1.85 | 0.79 | 3.57 | 2.31 |
| from continuing operations | 1.85 | 0.78 | 3.57 | 2.20 |
| from discontinued operation | - | 0.01 | - | 0.10 |
| Diluted | 1.85 | 0.79 | 3.57 | 2.31 |
| from continuing operations | 1.85 | 0.78 | 3.57 | 2.20 |
| from discontinued operation | - | 0.01 | - | 0.10 |

¹ Not defined by International Financial Reporting Standard (IFRSs).

Statement of Comprehensive Income

| € million | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 |
|--|-------------|------------|-----------------|-----------------|
| Profit after tax | 806 | 342 | 1,553 | 1,002 |
| Items of other comprehensive income that will not be reclassified to profit or loss in subsequent periods | | | | |
| Net defined benefit liability | | | | |
| Changes in remeasurement | 45 | -502 | -319 | -867 |
| Tax effect | 11 | 93 | 64 | 153 |
| Changes recognized in equity | 56 | -409 | -255 | -715 |
| Equity instruments | | | | |
| Fair value adjustments | -8 | -30 | -29 | -4 |
| Tax effect | - | - | - | - |
| Changes recognized in equity | -8 | -30 | -29 | -4 |
| | 47 | -439 | -284 | -718 |
| Items of other comprehensive income that may be reclassified to profit or loss in subsequent periods | | | | |
| Debt instruments | | | | |
| Fair value adjustments | - | - | - | - |
| Reclassification to profit or loss | - | - | - | - |
| Tax effect | - | - | - | - |
| Changes recognized in equity | - | - | - | - |
| Cash flow hedge reserve | | | | |
| Fair value adjustments | 50 | 31 | 21 | -4 |
| Reclassification to profit or loss | -5 | 26 | 41 | 77 |
| Reclassification to assets | - | - | - | - |
| Tax effect | -14 | -18 | -19 | -22 |
| Changes recognized in equity | 31 | 39 | 43 | 51 |
| Cost of cash flow hedge reserve | | | | |
| Fair value adjustments | -9 | 29 | -5 | 16 |
| Reclassification to profit or loss | 3 | 5 | 8 | 9 |
| Tax effect | - | -11 | -1 | -8 |
| Changes recognized in equity | -5 | 24 | 2 | 17 |
| Exchange differences on translating foreign operations | | | | |
| Changes taken directly to equity | -910 | 643 | -1,062 | 771 |
| Reclassification to profit or loss | - | - | 3 | - |
| Changes recognized in equity | -910 | 643 | -1,059 | 771 |
| | -883 | 706 | -1,013 | 839 |
| Other comprehensive income | -836 | 266 | -1,297 | 121 |
| Comprehensive income | -30 | 608 | 256 | 1,123 |
| thereof: attributable to Merck KGaA shareholders | -29 | 608 | 256 | 1,121 |
| thereof: attributable to non-controlling interests | -1 | - | - | 2 |
| Comprehensive income | -30 | 608 | 256 | 1,123 |
| thereof: from continuing operations | -30 | 606 | 256 | 1,080 |
| thereof: from discontinued operation | - | 2 | - | 43 |

Consolidated Balance Sheet¹

| € million | Sept. 30, 2020 | Dec. 31, 2019 |
|---|----------------|---------------|
| Non-current assets | | |
| Goodwill | 16,512 | 17,114 |
| Other intangible assets | 8,172 | 9,221 |
| Property, plant and equipment | 6,027 | 6,192 |
| Investments accounted for using the equity method | 2 | – |
| Other non-current financial assets | 656 | 738 |
| Other non-current receivables | 26 | 22 |
| Other non-current non-financial assets | 91 | 97 |
| Deferred tax assets | 1,487 | 1,421 |
| | 32,973 | 34,805 |
| Current assets | | |
| Inventories | 3,428 | 3,342 |
| Trade and other current receivables | 3,487 | 3,488 |
| Contract assets | 106 | 156 |
| Other current financial assets | 85 | 57 |
| Other current non-financial assets | 1,099 | 591 |
| Income tax receivables | 505 | 589 |
| Cash and cash equivalents | 1,548 | 781 |
| | 10,258 | 9,003 |
| Total assets | 43,231 | 43,808 |
| Total equity | | |
| Equity capital | 565 | 565 |
| Capital reserves | 3,814 | 3,814 |
| Retained earnings | 12,581 | 11,507 |
| Gains / losses recognized in equity | 968 | 1,980 |
| Equity attributable to Merck KGaA shareholders | 17,928 | 17,865 |
| Non-controlling interests | 67 | 48 |
| | 17,996 | 17,914 |
| Non-current liabilities | | |
| Non-current provisions for employee benefits | 3,534 | 3,194 |
| Other non-current provisions | 256 | 254 |
| Non-current financial debt | 9,977 | 8,644 |
| Other non-current financial liabilities | 59 | 43 |
| Other non-current non-financial liabilities | 110 | 93 |
| Deferred tax liabilities | 1,590 | 1,825 |
| | 15,526 | 14,053 |
| Current liabilities | | |
| Current provisions for employee benefits | 106 | 110 |
| Other current provisions | 424 | 823 |
| Current financial debt | 3,683 | 4,550 |
| Other current financial liabilities | 382 | 1,127 |
| Trade and other current payables | 1,684 | 2,054 |
| Refund liabilities | 680 | 565 |
| Income tax liabilities | 1,447 | 1,402 |
| Other current non-financial liabilities | 1,303 | 1,211 |
| | 9,709 | 11,842 |
| Total equity and liabilities | 43,231 | 43,808 |

¹Previous year's figures have been adjusted, see "Effects of disclosure changes".

Consolidated Cash Flow Statement

| € million | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 |
|---|--------------|--------------|--------------------|--------------------|
| Profit after tax | 806 | 342 | 1,553 | 1,002 |
| Depreciation / amortization / impairment losses / reversals of impairment losses | 451 | 464 | 1,442 | 1,391 |
| Changes in inventories | 51 | -57 | -195 | -316 |
| Changes in trade accounts receivable | -75 | -23 | -254 | -142 |
| Changes in trade accounts payable/refund liabilities | 54 | -13 | 12 | 128 |
| Changes in provisions | -256 | 81 | -294 | 134 |
| Changes in other assets and liabilities | 114 | 129 | -75 | 14 |
| Neutralization of gains / losses on disposals of assets | 11 | 10 | -28 | -39 |
| Other non-cash income and expenses | 13 | -1 | 28 | -6 |
| Net cash flows from operating activities | 1,170 | 931 | 2,189 | 2,166 |
| thereof: from discontinued operation | - | 12 | - | - |
| Payments for investments in intangible assets | -35 | -29 | -101 | -122 |
| Payments from the disposal of intangible assets | 4 | 8 | 17 | 24 |
| Payments for investments in property, plant and equipment | -235 | -193 | -777 | -566 |
| Payments from the disposal of property, plant and equipment | -2 | -1 | 8 | 5 |
| Payments for investments in financial assets | -224 | -11 | -262 | -176 |
| Payments for acquisitions less acquired cash and cash equivalents | - | -49 | -7 | -59 |
| Payments from the disposal of other financial assets | 261 | 72 | 331 | 83 |
| Payments for the purchase of non-financial assets | -500 | - | -500 | -500 |
| Payments from other divestments | -7 | -6 | 49 | -98 |
| Net cash flows from investing activities | -738 | -209 | -1,242 | -1,408 |
| thereof: from discontinued operation | -7 | -6 | -7 | -118 |
| Dividend payment to Merck KGaA shareholders | - | - | -168 | -162 |
| Dividend payments to non-controlling interests | - | - | -6 | -12 |
| Dividend payments to E. Merck KG | - | - | -512 | -516 |
| Payments from new borrowings from E. Merck KG | - | - | 390 | 406 |
| Repayments of financial debt to E. Merck KG | -182 | -194 | -216 | -194 |
| Payments from the issuance of bonds | 996 | 1,996 | 2,486 | 3,493 |
| Repayments of bonds | -683 | -800 | -2,724 | -800 |
| Changes in other current and non-current financial debt | -511 | -68 | 610 | -42 |
| Net cash flows from financing activities | -380 | 934 | -141 | 2,175 |
| thereof: from discontinued operation | - | - | - | - |
| Changes in cash and cash equivalents | 52 | 1,656 | 807 | 2,932 |
| Changes in cash and cash equivalents due to currency translation | -17 | 5 | -39 | 9 |
| Cash and cash equivalents at the beginning of the reporting period | 1,512 | 3,451 | 781 | 2,170 |
| Changes in cash and cash equivalents due to reclassification to assets held for sale | - | - | - | - |
| Cash and cash equivalents as of September 30 | 1,548 | 5,111 | 1,548 | 5,111 |

Consolidated Statement of Changes in Net Equity

| | Jan. 1, 2020 | Comprehensive income | | Dividend payments | Profit transfer to / from E. Merck KG including changes in reserves | Transactions with no change of control | Change in scope of consolidation / Other | Sept. 30, 2020 |
|---|-----------------|-------------------------|---|----------------------|--|--|--|-------------------|
| | | Profit after tax | Gains / losses recognized in equity | | | | | |
| Equity capital | 565 | - | - | - | - | - | - | 565 |
| General partner's equity | 397 | - | - | - | - | - | - | 397 |
| Subscribed capital | 168 | - | - | - | - | - | - | 168 |
| Capital reserves | 3,814 | - | - | - | - | - | - | 3,814 |
| Retained earnings | 11,507 | 1,551 | -284 | -168 | - | -1 | -25 | 12,581 |
| Retained earnings / net retained profit | 13,158 | 1,551 | - | -168 | - | -1 | 39 | 14,579 |
| Remeasurement of defined benefit plans | -1,729 | - | -255 | - | - | - | 21 | -1,963 |
| Fair value reserve for equity instruments | 79 | - | -29 | - | - | - | -84 | -35 |
| Gains / losses recognized in equity | 1,980 | - | -1,011 | - | - | - | - | 968 |
| Fair value reserve for debt instruments | -1 | - | - | - | - | - | - | - |
| Cash flow hedge reserve | -118 | - | 43 | - | - | - | - | -75 |
| Cost of cash flow hedge reserve | -33 | - | 2 | - | - | - | - | -31 |
| Currency translation difference | 2,131 | - | -1,057 | - | - | - | - | 1,075 |
| Equity attributable to Merck KGaA shareholders | 17,865 | 1,551 | -1,295 | -168 | - | -1 | -25 | 17,928 |
| Non-controlling interests | 48 | 2 | -2 | -6 | - | - | 25 | 67 |
| Total equity | 17,914 | 1,553 | -1,297 | -174 | - | -1 | - | 17,996 |

| € million | Jan. 1, 2019 | Comprehensive income | | Dividend payments | Profit transfer to / from E. Merck KG including changes in reserves | Transactions with no change of control | Change in scope of consolida- tion / Other | Sept. 30, 2019 |
|---|-----------------|-------------------------|---|----------------------|--|--|---|-------------------|
| | | Profit after tax | Gains / losses recognized in equity | | | | | |
| Equity capital | 565 | - | - | - | - | - | - | 565 |
| General partner's equity | 397 | - | - | - | - | - | - | 397 |
| Subscribed capital | 168 | - | - | - | - | - | - | 168 |
| Capital reserves | 3,814 | - | - | - | - | - | - | 3,814 |
| Retained earnings | 11,192 | 1,002 | -719 | -162 | - | - | - | 11,314 |
| Retained earnings / net retained profit | 12,525 | 1,002 | - | -162 | - | - | 1 | 13,367 |
| Remeasurement of defined benefit plans | -1,340 | - | -715 | - | - | - | - | -2,055 |
| Fair value reserve for equity instruments | 7 | - | -4 | - | - | - | -1 | 2 |
| Gains / losses recognized in equity | 1,629 | - | 837 | - | - | - | - | 2,466 |
| Fair value reserve for debt instruments | -1 | - | - | - | - | - | - | -1 |
| Cash flow hedge reserve | -128 | - | 51 | - | - | - | - | -77 |
| Cost of cash flow hedge reserve | -33 | - | 17 | - | - | - | - | -16 |
| Currency translation difference | 1,790 | - | 769 | - | - | - | - | 2,560 |
| Equity attributable to Merck KGaA shareholders | 17,200 | 1,002 | 119 | -162 | - | - | - | 18,158 |
| Non-controlling interests | 33 | - | 2 | -12 | - | - | - | 24 |
| Total equity | 17,233 | 1,002 | 121 | -173 | - | - | - | 18,182 |

Informationen by Business Sector

| € million | Healthcare | | | | Life Science | | | |
|---|--------------|--------------|-----------------|-----------------|--------------|--------------|-----------------|-----------------|
| | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 |
| Net sales¹ | 1,702 | 1,756 | 4,901 | 4,913 | 1,910 | 1,715 | 5,485 | 5,082 |
| Intersegment sales | - | - | - | - | 3 | 5 | 12 | 15 |
| Operating result (EBIT)² | 807 | 325 | 1,499 | 798 | 417 | 316 | 1,148 | 951 |
| Depreciation and amortization | 84 | 178 | 240 | 529 | 195 | 195 | 590 | 585 |
| Impairment losses | - | - | 13 | 28 | - | - | - | - |
| Reversals of impairment losses | - | - | - | - | - | - | - | - |
| EBITDA² | 892 | 504 | 1,752 | 1,355 | 612 | 511 | 1,737 | 1,536 |
| Adjustments ² | 4 | -3 | -10 | 6 | 18 | 20 | 15 | 44 |
| EBITDA pre (Segment result)² | 896 | 501 | 1,742 | 1,361 | 630 | 531 | 1,752 | 1,580 |
| EBITDA pre margin (in % of net sales) ² | 52.7% | 28.5% | 35.5% | 27.7% | 33.0% | 31.0% | 31.9% | 31.1% |
| Assets by business sector ³ | | | 7,270 | 7,560 | | | 20,765 | 21,596 |
| Liabilities by business sector ³ | | | -2,417 | -3,055 | | | -1,522 | -1,519 |
| Investments in property, plant and equipment ³ | 95 | 88 | 316 | 252 | 95 | 75 | 272 | 215 |
| Investments in intangible assets ⁴ | 16 | 16 | 31 | 57 | 11 | 6 | 32 | 51 |
| Business free cash flow ² | 790 | 311 | 1,429 | 878 | 566 | 410 | 1,284 | 1,002 |

¹ Excluding intersegment sales.

² Not defined by International Financial Reporting Standards (IFRSs).

³ Figures for the reporting period ending on September 30, 2020; previous-year figures as of December 31, 2019.

⁴ As reported in the consolidated cash flow statement.

| € million | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 |
|--|--------------|--------------|-----------------|-----------------|
| EBITDA pre of the operating businesses¹ | 1,780 | 1,209 | 4,272 | 3,501 |
| Corporate and Other | -80 | -98 | -316 | -322 |
| EBITDA pre of the Merck Group¹ | 1,701 | 1,111 | 3,956 | 3,179 |
| Depreciation / amortization / impairment losses / reversals of impairment losses | -453 | -464 | -1,441 | -1,394 |
| Adjustments ¹ | -81 | -39 | -142 | -180 |
| Operating result (EBIT)¹ | 1,167 | 608 | 2,374 | 1,605 |
| Financial result | -102 | -135 | -302 | -309 |
| Profit before income tax | 1,065 | 473 | 2,071 | 1,297 |

¹ Not defined by International Financial Reporting Standards (IFRSs).

| € million | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 |
|--|------------|------------|-----------------|-----------------|
| Restructuring expenses | -33 | -10 | -69 | -111 |
| Integration expenses / IT expenses | -26 | -28 | -85 | -63 |
| Gains (+) / losses (-) on the divestment of businesses | -19 | 4 | 8 | 4 |
| Acquisition-related adjustments | - | - | 11 | - |
| Other adjustments | -3 | -4 | -7 | -10 |
| Adjustments before impairment losses/reversals of impairment losses¹ | -81 | -39 | -142 | -180 |
| Impairment losses | -1 | -8 | -114 | -8 |
| Reversals of impairment losses | - | - | - | - |
| Adjustments (total)¹ | -82 | -47 | -256 | -188 |

¹ Not defined by International Financial Reporting Standards (IFRSs).

| Performance Materials | | | | Corporate and Other | | | | Group | | | |
|-----------------------|---------|--------------------|--------------------|---------------------|---------|--------------------|--------------------|---------|---------|--------------------|--------------------|
| Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 | Q3 2020 | Q3 2019 | Jan.-Sept. 2020 | Jan.-Sept. 2019 |
| 836 | 583 | 2,550 | 1,776 | - | - | - | - | 4,447 | 4,054 | 12,936 | 11,771 |
| - | - | - | - | -3 | -5 | -12 | -15 | - | - | - | - |
| 75 | 98 | 162 | 293 | -133 | -131 | -434 | -437 | 1,167 | 608 | 2,374 | 1,605 |
| 151 | 63 | 424 | 187 | 22 | 20 | 63 | 57 | 453 | 456 | 1,316 | 1,357 |
| - | 8 | 111 | 8 | - | - | - | - | - | 8 | 124 | 37 |
| - | - | - | - | - | - | - | - | - | - | - | - |
| 227 | 169 | 697 | 488 | -111 | -111 | -372 | -380 | 1,619 | 1,072 | 3,815 | 2,999 |
| 27 | 8 | 81 | 73 | 31 | 13 | 56 | 58 | 81 | 39 | 142 | 180 |
| 254 | 177 | 778 | 560 | -80 | -98 | -316 | -322 | 1,701 | 1,111 | 3,956 | 3,179 |
| 30.4% | 30.5% | 30.5% | 31.6% | - | - | - | - | 38.2% | 27.4% | 30.6% | 27.0% |
| | | 10,128 | 10,785 | | | 5,068 | 3,867 | | | 43,231 | 43,808 |
| | | -601 | -716 | | | -20,696 | -20,605 | | | -25,235 | -25,894 |
| 33 | 23 | 152 | 64 | 12 | 7 | 37 | 36 | 235 | 193 | 777 | 566 |
| 5 | 4 | 31 | 7 | 3 | 3 | 6 | 7 | 35 | 29 | 101 | 122 |
| 253 | 121 | 641 | 446 | -94 | -110 | -365 | -349 | 1,514 | 731 | 2,989 | 1,977 |

In comparison with the first nine months of 2019, restructuring expenses declined from € 111 million to € 69 million. Lower expenses were incurred for both the “Bright Future” transformation program in the Performance Materials business sector (€ 17 million; January-September 2019: € 56 million) and for the transfer of various activities to the Shared Service organization (€ 6 million; January-September 2019:

€ 28 million). By contrast, the costs for the launch of new ERP systems increased from € 40 million to € 44 million. Moreover, the acquisition of Versum Materials, Inc., USA, in 2019 led to integration costs of € 24 million (January-September 2019: € 4 million).

The following tables present a more detailed breakdown of net sales from contracts with customers.

| € million | Jan.-Sept. 2020 | | | | | | | |
|--|-----------------|-------------|--------------|-------------|-----------------------|-------------|---------------|-------------|
| | Healthcare | | Life Science | | Performance Materials | | Group | |
| Net sales by nature of the products | | | | | | | | |
| Goods | 4,803 | 98% | 4,838 | 88% | 2,293 | 90% | 11,934 | 92% |
| Equipment/hardware | 3 | - | 262 | 5% | 185 | 7% | 451 | 4% |
| Services | 31 | 1% | 379 | 7% | 71 | 3% | 481 | 4% |
| License income | - | - | 6 | - | 1 | - | 7 | - |
| Commission income | 13 | - | - | - | - | - | 13 | - |
| Income from co-commercialization agreements | 51 | 1% | - | - | - | - | 51 | - |
| Total | 4,901 | 100% | 5,485 | 100% | 2,550 | 100% | 12,936 | 100% |
| Net sales by region (customer location) | | | | | | | | |
| Europe | 1,603 | 33% | 1,864 | 34% | 185 | 7% | 3,653 | 28% |
| North America | 1,116 | 23% | 1,995 | 37% | 373 | 15% | 3,484 | 27% |
| Asia-Pacific (APAC) | 1,378 | 28% | 1,380 | 25% | 1,942 | 76% | 4,700 | 37% |
| Latin America | 476 | 10% | 181 | 3% | 21 | 1% | 679 | 5% |
| Middle East and Africa (MEA) | 327 | 6% | 65 | 1% | 29 | 1% | 421 | 3% |
| Total | 4,901 | 100% | 5,485 | 100% | 2,550 | 100% | 12,936 | 100% |

| € million | Jan.-Sept. 2019 | | | | | | | |
|--|-----------------|-------------|--------------|-------------|-----------------------|-------------|---------------|-------------|
| | Healthcare | | Life Science | | Performance Materials | | Group | |
| Net sales by nature of the products | | | | | | | | |
| Goods | 4,773 | 97% | 4,427 | 87% | 1,774 | 100% | 10,974 | 93% |
| Equipment/hardware | 6 | - | 304 | 6% | - | - | 309 | 3% |
| Services | 82 | 2% | 344 | 7% | 1 | - | 427 | 4% |
| License income | - | - | 6 | - | - | - | 6 | - |
| Commission income | 14 | - | 1 | - | 1 | - | 16 | - |
| Income from co-commercialization agreements | 39 | 1% | - | - | - | - | 39 | - |
| Total | 4,913 | 100% | 5,082 | 100% | 1,776 | 100% | 11,771 | 100% |
| Net sales by region (customer location) | | | | | | | | |
| Europe | 1,647 | 33% | 1,700 | 34% | 160 | 9% | 3,508 | 30% |
| North America | 1,063 | 22% | 1,820 | 36% | 162 | 9% | 3,045 | 26% |
| Asia-Pacific (APAC) | 1,366 | 28% | 1,282 | 25% | 1,420 | 80% | 4,068 | 35% |
| Latin America | 511 | 10% | 211 | 4% | 24 | 1% | 747 | 6% |
| Middle East and Africa (MEA) | 327 | 7% | 68 | 1% | 9 | 1% | 404 | 3% |
| Total | 4,913 | 100% | 5,082 | 100% | 1,776 | 100% | 11,771 | 100% |

HEALTHCARE

| € million | Jan.-Sept. 2020 | Share | Jan.-Sept. 2019 | Share |
|---|-----------------|-------------|-----------------|-------------|
| Oncology | 793 | 16% | 746 | 15% |
| thereof: Erbitux® | 636 | 13% | 633 | 13% |
| thereof: Bavencio® | 105 | 2% | 74 | 2% |
| Neurology & Immunology | 1,217 | 25% | 1,141 | 23% |
| thereof: Rebif® | 864 | 18% | 947 | 19% |
| thereof: Mavenclad® | 353 | 7% | 194 | 4% |
| Fertility | 781 | 16% | 934 | 19% |
| thereof: Gonal-f® | 471 | 10% | 565 | 11% |
| General Medicine & Endocrinology | 1,963 | 40% | 1,882 | 39% |
| thereof: Glucophage® | 686 | 14% | 653 | 13% |
| thereof: Concor® | 407 | 8% | 384 | 8% |
| thereof: Euthyrox® | 344 | 7% | 297 | 6% |
| thereof: Saizen® | 177 | 4% | 173 | 4% |
| Other | 146 | 3% | 209 | 4% |
| Total | 4,901 | 100% | 4,913 | 100% |

LIFE SCIENCE¹

| € million | Jan.-Sept. 2020 | Share | Jan.-Sept. 2019 | Share |
|--------------------|-----------------|-------------|-----------------|-------------|
| Process Solutions | 2,620 | 48% | 2,199 | 43% |
| Research Solutions | 1,613 | 29% | 1,625 | 32% |
| Applied Solutions | 1,252 | 23% | 1,257 | 25% |
| Total | 5,485 | 100% | 5,082 | 100% |

¹ Previous year's figures have been adjusted due to an internal realignment.

PERFORMANCE MATERIALS¹

| € million | Jan.-Sept. 2020 | Share | Jan.-Sept. 2019 | Share |
|-------------------------|-----------------|-------------|-----------------|-------------|
| Display Solutions | 844 | 33% | 971 | 55% |
| Semiconductor Solutions | 1,431 | 56% | 469 | 26% |
| Surface Solutions | 274 | 11% | 334 | 19% |
| Other | 1 | - | 1 | - |
| Total | 2,550 | 100% | 1,776 | 100% |

¹ Previous year's figures have been adjusted due to an internal realignment.

Significant events during the reporting period

IMPACT OF THE COVID-19 PANDEMIC ON THE FINANCIAL STATEMENTS

Merck is continuously reviewing the impacts of the Covid-19 pandemic on the business and the resulting effects on the financial statements of the Group. To date, Fertility (Healthcare) as well as Surface Solutions and Display Solutions (Performance Materials) were the units affected most adversely by the Covid-19 pandemic.

Due to the continued uncertain further development of the global Covid-19 pandemic, the degree of uncertainty in making assumptions and exercising management judgments is greater in these Interim Financial Statements than usual. This applies in particular to impairment testing of assets.

Impairment testing of non-financial assets

In the second quarter of 2020, an analysis was performed to determine the extent to which indicators of potential impairments on non-financial assets existed owing to the subsequent effects of the Covid-19 pandemic.

As a result, individual impairment indicators within the meaning of IAS 36 were deemed as fulfilled within the Performance Materials business sector (primarily relating to the Display Solutions and Surface Solutions businesses) and Healthcare (primarily relating to the Fertility and Neurology franchises). This estimate is based in particular on the lowering of internal short- and medium-term earnings and cash flow planning as well as published analyst forecasts.

Within the scope of the impairment testing that this necessitated, impairment losses on intangible assets in the Performance Materials business sector amounted to € 96 million in the second quarter of 2020. € 69 million of this was attributable to technology-related intangible assets, which were largely acquired as part of the acquisition of AZ Electronic Materials. Further impairment losses on property, plant and equipment in the amount of € 12 million were recognized within the Performance Materials business sector. The impairment testing of goodwill, which was also carried out in the second quarter of 2020, did not give rise to impairment losses.

Further information on the above-mentioned impairment testing can be found in the 2020 Half-Yearly Financial Report.

Other effects on the financial statements of the Group

Apart from sales declines in individual business sectors, negative effects in the third quarter of 2020 resulted predominantly from increased logistics expenses and write-downs of inventories.

So far, Merck as a lessee has not had to make any notable use of deferments of lease payments. Consequently, the amendment to IFRS 16 concerning rent concessions, which was published by the IASB in May 2020, did not have a significant impact on Merck.

Owing to the Covid-19 pandemic, individual contractually agreed payment terms were extended with some customers. Furthermore, the expected default rates to be applied for trade accounts receivable in the simplified impairment model were adjusted by adapting in the second quarter of 2020 the minimum default probabilities per age group derived from market data in line with the development of the prices of credit default swap spreads. This led to an increase in impairments on trade accounts receivable in a low-single-digit million euro amount.

Further information about the impact of the pandemic can be found under "Course of business and economic position". More information on the expected impact of the Covid-19 pandemic on fiscal 2020 can be found under "Report on Expected Developments".

LITIGATION DEVELOPMENTS

Product-related and patent disputes

PS-VA liquid crystals mixtures: In the Performance Materials business sector, Merck is involved in a legal dispute with JNC Corporation, Japan, (JNC). JNC claims that by manufacturing and marketing certain liquid crystal mixtures, Merck infringes on JNC patents. JNC is asserting its claims in court in two jurisdictions. Merck maintains that the patent infringement assertion by JNC is invalid in three jurisdictions owing to relevant prior art and has filed the corresponding nullity actions. As of the end of the second quarter of 2020, the nullity action was concluded in two jurisdictions with legally binding effect in favor of Merck. A patent infringement action was only conducted in two jurisdictions and was concluded in 2019. In the third jurisdiction, a patent infringement and a nullity action as well as a correction trial are still pending. In view of these developments, the provision was reduced in the second quarter of 2020 and amounts to a double-digit million euro sum. Cash outflow within the next 12 months is considered possible at present.

Rebif®: Merck is involved in a patent dispute with Biogen Inc., United States, (Biogen) in the United States. Biogen claims that the sale of Rebif® in the United States infringes a Biogen patent. The disputed patent was granted to Biogen in 2009 in the United States. Subsequently, Biogen sued Merck and other pharmaceutical companies for damages due to infringement of

this patent. Merck defended itself against all allegations and brought a countersuit claiming that the patent was invalid and not infringed by Merck's actions. In the first instance, a jury declared the patent invalid. This jury verdict was overturned by the District Court Judge in the same instance in September 2018. Thus, the patent was considered in the first instance proceedings as valid and infringed. Merck filed a complaint with the U.S. Court of Appeals for the Federal Circuit (second instance) against this ruling in October 2018. On September 28, 2020, this court set aside the decision of the District Court Judge, declared Biogen's patent invalid and instructed the District Court to reinstate the jury verdict. Based on this decision, a cash outflow is considered unlikely, which is why the provision of € 365 million for potential damages was released in the third quarter of 2020. The corresponding income was recognized in other operating income. Only a single-digit million euro amount for expected costs of external legal counsel remained.

EU Commission antitrust proceedings

Antitrust review proceedings for the acquisition of Sigma-Aldrich Corporation, USA, (Sigma-Aldrich): On July 6, 2017, Merck received notice from the European Commission (EU Commission) in connection with the antitrust review proceedings for the acquisition of Sigma-Aldrich, in which the EU Commission informed Merck of its preliminary conclusion that Merck and Sigma-Aldrich allegedly transmitted incorrect and/or misleading information within the scope of the acquisition of Sigma-Aldrich. The EU Commission received registration of the merger on April 21, 2015, and granted clearance on June 15, 2015, subject to the condition that Merck and Sigma-Aldrich divest parts of the European solvents and inorganic chemicals businesses of Sigma-Aldrich in order to resolve antitrust concerns. According to the preliminary viewpoint of the EU Commission communicated in the letter dated July 6, 2017, Merck and Sigma-Aldrich withheld in this connection important information about an innovation project allegedly relevant for certain laboratory chemicals of significance to the analysis by the EU Commission. According to the EU Commission, the innovation project should have been included in the remedies package. This resulted in an EU Commission administrative procedure. On July 1, 2020, the EU Commission informed Merck that the allegations made against Merck will be dropped. The accusations made against Sigma-Aldrich remain the object of the ongoing proceedings. This could lead to a fine being imposed, against which legal recourse could be taken. The existing provision amounting to a mid double-digit euro amount was reduced to a low double-digit million euro amount in the second quarter of 2020. A potential cash outflow is considered possible for 2020.

Other proceedings

Citalopram: In connection with the divested Generics business, an accusation has been made against Merck that the agreements of the former subsidiary Generics (UK) Ltd. relating to the anti-depressant citalopram patented by Lundbeck A/S in Denmark violate EU antitrust law. The EU Commission thus imposed a fine amounting to a double-digit million euro sum in June 2013. In August 2013, Merck filed an appeal against the decision of the Commission with the General Court of the European Union (EGC). In 2016, the appeal was rejected, whereupon Merck took legal action before the European Court of Justice (ECJ). In the course of these proceedings, the Advocate General at the ECJ recommended that the judgement of the EGC be upheld. A decision on this matter by the end of 2020 is considered possible. Due to this unfavorable development, additional accounting measures were taken on September 30, 2020 for further potential claims in this connection. The provision for this matter was thus increased by a double-digit million euro amount.

AGREEMENT TO DIVEST THE ALLERGOPHARMA ALLERGY BUSINESS

On February 19, 2020, Merck signed an agreement to divest its Allergopharma allergy business to Dermapharm Holding SE. Following regulatory approval and the satisfaction of other customary closing conditions, the transaction closed on March 31, 2020. The business in China, which is considered immaterial, was subsequently transferred on August 31, 2020.

Allergopharma is a leader in allergen-specific immunotherapy of type 1 allergies. Allergopharma products are currently available in 18 markets worldwide. The transaction encompassed the Allergopharma business in Europe and Asia, with the broad portfolio of therapeutic and diagnostic products as well as the production site in Reinbek near Hamburg (Germany). An existing adrenaline autoinjector development project for the treatment of anaphylactic reactions was not part of the transaction and remained with Merck. As of September 30, 2020, after the deduction of cash and cash equivalents, Merck received € 56 million, which was disclosed in the reporting period under cash flows from investing activities in the cash flow statement. Because the purchase price adjustments have not been completed, it has not yet been possible to determine the final purchase price.

In the opinion of the Executive Board, the preconditions for classification as a discontinued operation pursuant to IFRS 5 were only met once the agreement to divest the Allergopharma business had been signed.

ACQUISITION OF VERSUM MATERIALS, INC., USA, IN 2019

On October 7, 2019, Merck announced the successful closing of the acquisition of Versum Materials, Inc., USA, (Versum). The purchase price in accordance with IFRS 3 was around € 5.2 billion. Versum is one of the world's leading suppliers of innovation-driven, high-purity process chemicals, gases and equipment for semiconductor manufacturing. The company reported annual sales of approximately € 1.2 billion in fiscal 2018, has approximately 2,300 employees, and operates 14 manufacturing and seven research and development facilities throughout Asia and North America. The legacy Versum

business is being integrated into the Semiconductor Solutions business unit within the Performance Materials business sector. The merger is expected to transform Merck into a leading provider of electronic materials for the semiconductor and display industries. Intangible assets represented the vast majority of the fair values of the acquired net assets. More information on this company acquisition can be found under "Acquisitions and divestments" in the Notes to the Consolidated Financial Statements of the Annual Report for 2019 and under "Notes to the Half-Year Consolidated Financial Statements as of June 30, 2020" in the 2020 Half-Yearly Financial Report.

Subsequent events

On October 1, 2020, Merck entered into an out-licensing agreement with Novartis AG, Switzerland, (Novartis) regarding the development of M6495, a Phase II-ready asset for the potential treatment of osteoarthritis. Merck will receive an upfront payment of € 50 million with the potential of receiving a further € 400 million related to delivering on certain development and commercial milestones and royalties on future net sales. Novartis will assume full responsibility for the development and commercialization of the M6495 program. Income of nearly € 30 million from the out-licensing of intellectual property will be reported under other operating income in the fourth quarter of 2020.

On October 15, 2020, Merck signed a contract known as a virtual power purchase agreement, with a wind energy project developer in Texas, USA, for an expected project capacity of 50 MW. The wind energy project developer plans to commence operations in 2022. Merck will receive renewable energy certificates ("RECs") for the quantities of electricity produced. As the contractual framework is designed as contract for differences, it fulfills the definition of a derivative financial instrument and is subsequently measured at fair value through profit or loss in accordance with IFRS 9.

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

Effects of disclosure changes

CHANGE IN BALANCE SHEET DISCLOSURE OF PROVISIONS FOR EMPLOYEE BENEFITS

To increase the comparability and the further harmonization with the requirements of IFRS taxonomy, with effect from January 1, 2020 Merck adapted the disclosure of provisions and liabilities for employee benefits.

Provisions for employee benefits of € 237 million previously included in other non-current provisions were reclassified to

provisions for pensions and other post-employment benefits and this item was renamed “non-current provisions for employee benefits”.

Current liabilities were expanded to include “Current provisions for employee benefits”. In connection with this reclassification, other current provisions decreased accordingly by € 110 million.

Darmstadt, November 11, 2020



Stefan Oschmann



Kai Beckmann



Belén Garijo



Marcus Kuhnert

FINANCIAL CALENDAR
for 2021



March
3/4/2021

Annual Press Conference



August
8/5/2021

Half-yearly Financial Report



April
4/23/2021

Annual General Meeting



November
11/11/2021

Quarterly Statement Q3



May
5/12/2021

Quarterly Statement Q1

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TYPESETTING + LAYOUT

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