MERCK

3RD QUARTER 2019

QUARTERLY STATEMENT

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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 2018 has been optimized for mobile devices and is available on the Web at **ar.merckgroup.com/2018/**.

Merck – In brief

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Key figures

€ million	Q3 2019	Q3 2018	Change	Jan.–Sept. 2019	Jan.–Sept. 2018	Change
Net sales	4,054	3,749	8.1%	11,771	10,949	7.5%
Operating result (EBIT)[1]	608	491	23.8%	1,605	1,386	15.9%
Margin (% of net sales)[1]	15.0%	13.1%		13.6%	12.7%	
EBITDA[2]	1,072	919	16.7%	2,999	2,683	11.8%
Margin (% of net sales)[1]	26.5%	24.5%		25.5%	24.5%	
EBITDA pre	1,111	963	15.4%	3,179	2,850	11.5%
Margin (% of net sales)[1]	27.4%	25.7%		27.0%	26.0%	
Profit after tax	342	345	–1.0%	1,002	938	6.9%
Earnings per share (€)	0.79	0.78	1.3%	2.31	2.13	8.5%
Earnings per share pre (€)[1]	1.35	1.32	2.3%	4.02	3.89	3.3%
Business free cash flow[1]	731	711	2.9%	1,977	1,943	1.8%

[1] Not defined by International Financial Reporting Standards (IFRS).

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Net sales by quarter

€ million

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EBITDA pre[1] by quarter

€ million

[1] Not defined by International Financial Reporting Standards (IFRS).

Developments within the Group and R&D

Merck

Summary of the third quarter of 2019

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. Progress thrives on curious minds.

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 54,042 employees worldwide on September 30, 2019 compared with 54,756 on September 30, 2018.

This section of the present quarterly statement summarizes the highlights of the third quarter of 2019 at Merck, including those in research and development. A detailed description of Merck and its business sectors can be found in the Annual Report for 2018 (ar.merckgroup.com/2018).

Healthcare

BIOPHARMA

Collaborations

- In September, we signed a collaboration and license agreement with Y-Trap, Inc. of Baltimore, Maryland, United States, for the exclusive development of multiple specific antibody-ligand traps for cancer immunotherapy. The collaboration leverages Y-Trap's proprietary platform of multifunctional antibody-ligand traps for immuno-oncology. The Y-Trap platform exploits combinatorial protein engineering to counteract key determinants of immune dysfunction in the tumor micro-environment. Y-Trap and Merck will collaborate to explore the pharmacology of Y-Trap multifunctional proteins and Merck will be responsible for all development, manufacturing and commercialization activities. Under the agreement, Merck will provide Y-Trap with an upfront payment in addition to milestone payments and royalties based on the achievement of specific pre-clinical, clinical development, regulatory, and commercial milestones.

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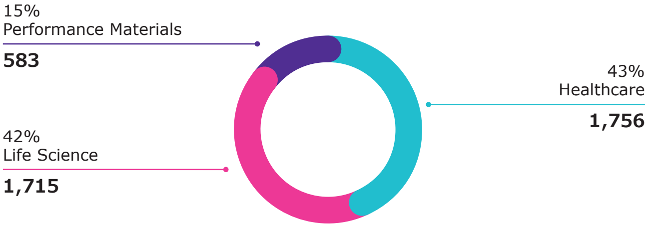
Net sales by business sector – Q3 2019
€ million/in % of net sales



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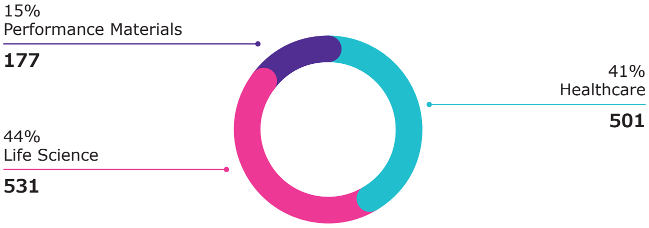
EBITDA pre[1] by business sector[2] – Q3 2019
€ million/in %



[1] Not defined by International Financial Reporting Standards (IFRS).

[2] Not presented: Decline in Group EBITDA pre by € –98 million due to Corporate and Other.

Oncology and Immuno-Oncology

- On September 9, we shared important milestones for two combination studies of the investigational therapy tepotinib in locally advanced or metastatic non-small cell lung cancer (NSCLC) with epidermal growth factor receptor (EGFR) mutation and select MET dysregulations. These include progression-free survival and overall survival data from the Phase Ib/II INSIGHT study of tepotinib plus the EGFR inhibitor gefitinib, along with an update stating that the Phase II INSIGHT 2 study of tepotinib plus the tyrosine kinase inhibitor osimertinib is now open for enrollment. Tepotinib, discovered in-house at Merck, is an investigational oral MET inhibitor that underscores our strategic focus on delivering innovative precision medicines to patients with cancer.
- On September 11, we announced that the U.S. Food and Drug Administration (FDA) granted Breakthrough Therapy Designation (BTD) for tepotinib in patients with metastatic NSCLC harboring MET exon 14 skipping alterations who progressed following platinum-based cancer therapy. This BTD is based on data from the ongoing VISION study (NCT02864992), showing preliminary clinical evidence that tepotinib may offer an improvement over available therapy in patients with metastatic NSCLC harboring MET exon 14 skipping alterations detected by liquid biopsy or tissue biopsy across different lines of treatment.
- On September 20, we and our alliance partner Pfizer Inc. reported that the Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency (EMA) adopted a positive opinion recommending approval of Bavencio® (avelumab) in combination with axitinib for the first-line treatment of adult patients with advanced renal cell carcinoma (RCC). The opinion was based on positive findings from the Phase III JAVELIN Renal 101 study, which demonstrated a significant extension in median progression-free survival and a clinically meaningful improvement in objective response rate for the combination across all prognostic risk groups compared with sunitinib. On October 28, the European Commission approved Bavencio® in combination with axitinib for the first-line treatment of adult patients with advanced renal cell carcinoma.
- On September 27, the National Medical Products Administration of China approved Erbitux® (cetuximab) for the first-line treatment for patients with RAS wild-type (wt) metastatic colorectal cancer (mCRC) in combination with FOLFOX or FOLFIRI, or in combination with irinotecan in patients who are refractory to irinotecan-based chemotherapy. The pivotal Phase III evidence from the TAILOR study, on which the approval was based, shows significant benefit in overall response rate, progression-free survival and overall survival for patients treated with Erbitux® in combination with FOLFOX, compared to FOLFOX alone, in the first-line setting for this challenging type of cancer.
- At the 2019 European Society for Medical Oncology (ESMO) Congress, September 27 – October 1, in Barcelona, Spain, we presented new data representing several key therapeutic agents from our diverse oncology pipeline, including Bavencio® data in advanced RCC, Erbitux® data in RAS wt mCRC, and our investigational oral MET inhibitor tepotinib in advanced solid tumors. In addition, a number of investigator-sponsored studies (ISS) and collaborative research studies exploring our pipeline were also presented.
- In early October, the first patient was enrolled in the bintrafusp alfa study (NCT04066491), a Phase II/III, multicenter, randomized, placebo-controlled study of gemcitabine plus cisplatin with or without bintrafusp alfa in patients with 1L biliary tract cancer (BTC). BTC is a collective term for a group of rare and aggressive gastrointestinal cancers with limited treatment options and poor patient outcomes.

Neurology and Immunology

- On July 1, we announced new pregnancy outcomes data in women with multiple sclerosis (MS) treated with interferon beta (IFNβ), including Rebif® (interferon beta-1a), at the European Academy of Neurology (EAN) 2019 Congress in Oslo, Norway. Results from the largest population-based observational study in women treated with IFNβ who became pregnant showed no increased risk of major congenital anomalies compared to those unexposed. The results are based on Finnish and Swedish health registry data collected between 1996 and 2014.

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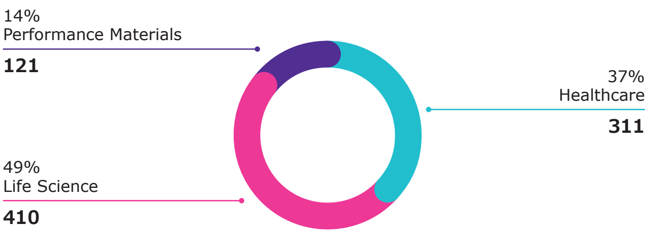
Business free cash flow[1] by business sector[2] – Q3 2019
€ million / in %



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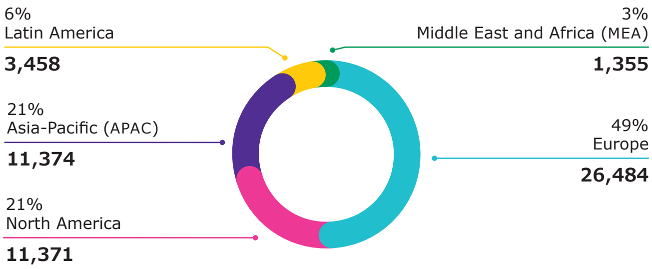
Employees by region as of September 30, 2019
Number / in %



[1] Not defined by International Financial Reporting Standards (IFRS).

[2] Not presented: Decline in Group business free cash flow by € –110 million due to Corporate and Other.

- We continue to receive regulatory approvals for Mavenclad® (cladribine tablets) around the world. On September 9, we obtained approval for Mavenclad® in Brazil for the treatment of adult patients with highly active relapsing MS (RMS) as defined by clinical or imaging features. Mavenclad® is now approved in 70 countries, including those of the European Union, Australia, Canada and the United States.
- In early September, we announced the initiation of two global pivotal Phase III trials (EVOLUTION RMS 1 and 2) studying the efficacy and safety of evobrutinib, an oral, highly selective Bruton's tyrosine kinase (BTK) inhibitor in adult patients with RMS. Enrollment of patients is currently underway, and our goal is to enroll 1,900 patients. The target completion for these studies is June 2023.
- At the 35th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) from September 11–13, 2019 in Stockholm, Sweden, we presented 39 abstracts highlighting key data with Mavenclad®, Rebif® and evobrutinib.
- On September 23, we announced that the CHMP of the EMA issued a positive opinion to update the product label of Rebif® to include that women with RMS may continue treatment with Rebif® during pregnancy if clinically needed and while breastfeeding. Treatment with Rebif® while breastfeeding is an important option as many patients experience a relapse in their MS during the first three months following childbirth.

General Medicine and Endocrinology

- Our new formulation of Euthyrox® (levothyroxine) for the treatment of hypothyroidism obtained further regulatory approvals in the third quarter (Cyprus, Moldova and Malaysia), resulting in a total of 30 countries in which it has been approved. New launches planned for the coming months include the Czech Republic, Slovakia, Portugal, and Greece.
- Glucophage®, containing the active ingredient metformin, is now approved in 53 countries for prediabetes when lifestyle intervention is not enough to control the condition. At the 55th Annual Meeting of the European Association for the Study of Diabetes (EASD) in Barcelona this September, a first-of-its-kind Millennial Advisory Board was held with a new generation of HCPs (healthcare professionals), to discuss treatment paradigms for prediabetes. In July, we launched Glucophage XR 850 (dedicated to the prediabetes condition) in Brazil.
- We continued to execute our Branded Off-Patent Products strategy. Toreza® (rosuvastatin) was approved in Chile in July. Toreza® is available in two strengths, 10 mg and 20 mg, offering HCPs an important choice for the treatment of dyslipidemia.
- The number of patients taking Saizen® (somatropin) enrolled on easypod® Connect continues to grow, reaching close to 20,000 connected patients in September. Saizen® is our main endocrinology product and is indicated for the treatment of growth hormone deficiency in children and adults, while easypod® Connect is a unique web-based platform that allows HCPs to monitor their patients' adherence to treatment with real-time injection data collected and transmitted from their easypod® devices.
- The launch of Aluetta®, our new pen for the injection of Saizen® and a complement to easypod®, continues to support the profitable growth of Saizen® by expanding our business in key geographies like Germany. Aluetta® is currently approved in 20 countries.

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, has been successfully launched in several countries in Europe, Asia-Pacific and Latin America so far in 2019. Additional launches in other countries are planned.
- On July 29, we announced we are working with the Leibniz Institute for Zoo and Wildlife Research, Berlin, Germany, and other research partners, to support efforts to save the northern white rhinoceros from extinction.

Life Science

- In the third quarter of 2019, our Life Science business sector continued to focus on meeting customer needs by launching 5,160 products across its Research Solutions, Process Solutions and Applied Solutions business units.
- On July 18, we announced the creation of a CRISPR licensing framework with the Broad Institute of MIT and Harvard, Cambridge, MA (United States), to simplify and streamline the way we offer non-exclusive licenses to CRISPR genome-editing intellectual property for use in commercial research and development. The collaboration is designed to allow other CRISPR patent holders to participate.
- On July 24, we signed a non-binding memorandum of understanding with Phanes Therapeutics, Inc., Beijing, China, to collaborate on the development and manufacture of biologics for the treatment of solid tumors. The parties envision that under the alliance Merck will provide Phanes a full suite of its BioReliance® End-to-End Solutions.
- On August 6, we announced the acquisition of BSSN Software, a laboratory informatics company based in Darmstadt, Germany, that makes data more readily accessible for ease of integration, collaboration, analytics, and long-term archiving. The acquisition aims to accelerate our customers' digital transformation in the lab.
- In August, we were granted our 20th CRISPR-related patent. The latest patents for CRISPR genome editing were granted by the European, Israeli, South Korea and UK intellectual property offices.
- On September 19, Merck became the first life science business to open a flagship store on Alibaba's 1688.com, to improve the e-commerce experience for customers in China. This store allows us to leverage Alibaba's leading technology in Big Data, cloud services and Artificial Intelligence, as well as its digitalized operations and offline channel capabilities. It also supports our efforts to develop deeper customer relationships, foster collaboration and innovation and speed our digital transformation in this important market.

Performance Materials

- Our Performance Materials business sector comprises the specialty chemicals business of Merck. We offer innovative solutions especially for the electronics industry – for microchips and displays – and for surfaces of every kind.
- We are very well on track with the execution of our five-year Bright Future transformation program, which we are using to adapt to new market realities and customer requirements. Bright Future forms the foundation for returning to sustainable growth, ensuring attractive margins and remaining competitive. In the third quarter of 2019, we further streamlined our cost-base and our processes. With the completion of the acquisition of Intermolecular, Inc. in the third quarter, we achieved a major milestone on our Bright Future journey to transform Performance Materials into a strong solutions provider and leading player in the electronic materials market.
- As previously communicated, we are reallocating our resources in research and development (R&D). In this connection, after thoroughly assessing all strategic options we closed down our main R&D site in Chilworth, United Kingdom, at the end of September.
- On September 20, we completed the US$ 62 million acquisition of Intermolecular, Inc., a San Jose, California-based company for advanced materials innovation. Intermolecular possesses application-specific materials expertise, accelerated learning and experimentation platforms with a powerful analytics infrastructure that perfectly complement our portfolio. Together, we are well-positioned to deliver the next generation digital devices for a smarter, safer and connected world. Intermolecular will be integrated as a new business field into Semiconductor Solutions.

Semiconductor Solutions

- Our Semiconductor Solutions business unit supplies innovative material-based solutions for the production of semiconductor chips, which are the building blocks of electronic devices such as smartphones and PCs. The portfolio includes patterning, deposition, dielectric and chemical mechanical planarization (CMP) materials for wafer processing. Conductive pastes, thick-film resists and dielectric materials for semiconductor packaging round off the portfolio.

- We have made good progress with our R&D activities for solid cleaning materials. Our material was selected as a baseline at a leading customer; further process optimizations and repeatability tests at multiple sites are underway.
- The first generation of Directed Self Assembly (DSA) products is nearing commercialization.
- Our latest spin-on metal hard mask technology is developing well. We are currently working with our customers on a solution to include this material into their next generation device manufacturing process.
- We are expanding the manufacturing capacities for our EUV (Extreme Ultraviolet) lithography rinse material to meet the increasing demand we are witnessing. Our latest generation of EUV rinse material samples showed excellent performance at one of our customers and we are currently accelerating the commercialization process.
- Our R&D team is developing a newly synthesized type of silica particles for CMP slurries, which will open a new market.
- In the non-memory market, sensors for imaging and non-imaging applications as well as 5G signal filters, micro-electromechanical systems, and power management ICs (Integrated Circuits) continue to be industry drivers. Our material development process will meet the needs of these markets.
- We continue to invest in the development of advanced removers used in the photolithographic processes to provide customers with innovative alternative materials that ensure compliance with future environmental regulations.
- Our conductive paste technology has qualified for high-frequency beam forming technology and is entering the emerging 5G market through a major telecommunication company. Advanced chip-scale-packaging materials are being marketed to power device customers along with assembly materials for the automotive market.

Display Solutions

- The Display Solutions business unit comprises our Liquid Crystals, Organic Light-Emitting Diodes (OLED), Photoresists and Liquid Crystal Windows businesses.
- In Liquid Crystals, our newest materials are helping us to maintain our longstanding position as the market and technology leader. With our XtraBright™, XtraBrilliant™ and XtraBoost™ products, we were able to win new projects for large-area displays as well as high-resolution mobile devices.
- Our constantly enhanced OLED material portfolio continues to secure successful qualifications in a number of upcoming devices.
- For liquid crystal window modules, four projects are in the installation phase. These innovative solar shading solution projects demonstrate superior esthetics and design implementation. In parallel, the ramp-up of commercial manufacturing at our Veldhoven site is running as planned with the integration of a new lamination unit that will further optimize overall production yield.
- Our Photoresists business continues to perform well based on proven technological competence. This is evidenced by a strong position in new display production lines in the growing Chinese market.
- Throughout 2019, we have showcased our broad display portfolio at the most important trade fairs for the industry including Display Week in San Jose, California (USA), C-Touch & Display in Shanghai, China and Touch Taiwan in Taipeh. At all tradeshows, we highlighted our position as technology as well as market leader in the industry.

Surface Solutions

- Surface Solutions covers various markets with a focus on automotive coatings and cosmetics. The global decline in car production has led to softer markets for all automotive industry suppliers.
- As a leading player in the pearlescent pigments market, we are continuously expanding our product portfolio, offering our customers enhanced color styling opportunities. Recently introduced products are Xirallic® NXT Amur Black, allowing clean, deep blacks for new dark achromatic formulations, and Meoxal® Victoria Red for high chromatic reds.
- To meet ongoing strong demand for our silica-flake based pigments (Colorstream® and Xirona® brands) we are investing in the expansion of our capacities. This summer, we completed a first step with the roofing ceremony for a new production plant in Gernsheim, Germany, representing an investment of € 28 million.

Course of Business and Economic Position

Merck

Overview – Q3 2019

- Double-digit sales increases in Healthcare and Life Science leads to an 8.1% rise in Group sales to € 4.1 billion
- Group net sales show organic growth of 5.7%, supported by positive exchange rate effects (2.7%)
- Group EBITDA pre up by 15.4% to € 1,111 million; EBITDA pre margin improves to 27.4% (Q3 2018: 25.7%)
- Net financial debt amounts to € 7.3 billion on September 30, 2019 (December 31, 2018: € 6.7 billion)

MERCK GROUP

Key figures

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
Net sales	4,054	3,749	8.1%	11,771	10,949	7.5%
Operating result (EBIT)[1]	608	491	23.8%	1,605	1,386	15.9%
Margin (% of net sales)[1]	15.0%	13.1%		13.6%	12.7%	
EBITDA[2]	1,072	919	16.7%	2,999	2,683	11.8%
Margin (% of net sales)[1]	26.5%	24.5%		25.5%	24.5%	
EBITDA pre	1,111	963	15.4%	3,179	2,850	11.5%
Margin (% of net sales)[1]	27.4%	25.7%		27.0%	26.0%	
Profit after tax	342	345	–1.0%	1,002	938	6.9%
Earnings per share (€)	0.79	0.78	1.3%	2.31	2.13	8.5%
Earnings per share pre (€)[1]	1.35	1.32	2.3%	4.02	3.89	3.3%
Business free cash flow[1]	731	711	2.9%	1,977	1,943	1.8%

[1] Not defined by International Financial Reporting Standards (IFRS).

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In the third quarter of 2019, the Merck Group generated net sales of € 4,054 million (Q3 2018: € 3,749 million). This represented a year-on-year increase of around € 304 million or 8.1%. Organic sales growth for the Group amounted to € 213 million or 5.7% in the third quarter of 2019. While the two top-selling business sectors Healthcare and Life Science generated organic sales increases of 8.0% and 10.0%, respectively, Performance Materials saw an organic sales decline of –10.6%. Currency-driven sales increases (2.7% or € 102 million) were primarily attributable to the U.S. dollar, the Japanese yen and the Chinese renminbi. Negative foreign exchange effects were due in particular to the development of the Argentinian peso. The impact on Group sales of the December 2018 divestment of the Flow Cytometry business, which was part of the Life Science business sector, was –0.3% in the third quarter of 2019.

In the third quarter of 2019, the Healthcare business sector generated a double-digit sales increase of 10.0% to € 1,756 million (Q3 2018: € 1,596 million), which was mainly due to organic sales growth (8.0%). Accounting for a 43% (Q3 2018: 42%) share of Group sales, Healthcare was the Group’s largest business sector in terms of sales in the third quarter of 2019. In the third quarter of 2019, net sales of the Life Science business sector increased by 12.3% to € 1,715 million (Q3 2018: € 1,527 million). Life Science’s share of Group net sales thus increased to 42% (Q3 2018: 41%). Net sales of the Performance Materials business sector decreased by –6.9% to € 583 million (Q3 2018: € 626 million). The organic decline in sales amounted to –10.6%, which was partly mitigated by positive foreign exchange effects of 3.7%. The percentage contribution of the Performance Materials business sector to Group net sales decreased by two percentage points to 15% (Q3 2018: 17%).

MERCK GROUP

Net sales by business sector

€ million	Q3 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2018	Share
Healthcare	1,756	43%	8.0%	2.0%	–	10.0%	1,596	42%
Life Science	1,715	42%	10.0%	3.0%	–0.7%	12.3%	1,527	41%
Performance Materials	583	15%	–10.6%	3.7%	–	–6.9%	626	17%
Merck Group	**4,054**	**100%**	**5.7%**	**2.7%**	**–0.3%**	**8.1%**	**3,749**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

In the third quarter of 2019, the regional sales development of the Merck Group was as follows:

MERCK GROUP

Net sales by region

€ million	Q3 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2018	Share
Europe	1,157	29%	4.0%	0.4%	–0.2%	4.2%	1,111	30%
North America	1,073	26%	5.2%	5.9%	–0.4%	10.6%	970	26%
Asia-Pacific (APAC)	1,414	35%	5.9%	3.9%	–0.3%	9.5%	1,291	34%
Latin America	261	6%	16.4%	–5.8%	–	10.6%	236	6%
Middle East and Africa (MEA)	149	4%	2.3%	3.0%	–0.2%	5.2%	142	4%
Merck Group	**4,054**	**100%**	**5.7%**	**2.7%**	**–0.3%**	**8.1%**	**3,749**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

In the first nine months of 2019, net sales of the Merck Group increased by 7.5% to € 11,771 million (January-September 2018: € 10,949 million). This positive sales development was primarily due to organic sales increases. Sales of the business sectors in the period from January to September 2019 developed as follows:

MERCK GROUP

Net sales by business sector

€ million	Jan.–Sept. 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2018	Share
Healthcare	4,913	42%	5.4%	1.0%	–	6.5%	4,615	42%
Life Science	5,082	43%	9.4%	2.6%	–0.6%	11.5%	4,557	42%
Performance Materials	1,776	15%	–3.4%	3.3%	–	–	1,776	16%
Merck Group	**11,771**	**100%**	**5.7%**	**2.1%**	**–0.2%**	**7.5%**	**10,949**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

In the first nine months of 2019, Group sales by region were as follows:

MERCK GROUP

Net sales by region

€ million	**Jan.–Sept. 2019**	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2018	Share
Europe	3,508	30%	4.3%	–0.2%	–0.2%	3.8%	3,379	31%
North America	3,045	26%	2.3%	6.0%	–0.4%	7.9%	2,822	26%
Asia-Pacific (APAC)	4,068	35%	8.6%	2.8%	–0.2%	11.2%	3,658	33%
Latin America	747	6%	12.2%	–6.7%	–	5.5%	708	6%
Middle East and Africa (MEA)	404	3%	3.2%	2.6%	–0.1%	5.8%	382	4%
Merck Group	**11,771**	**100%**	**5.7%**	**2.1%**	**–0.2%**	**7.5%**	**10,949**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

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

MERCK GROUP

Consolidated Income Statement[1]

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
Net sales	**4,054**	**3,749**	**8.1%**	**11,771**	**10,949**	**7.5%**
Cost of sales	–1,478	–1,344	10.0%	–4,316	–3,925	9.9%
Gross profit	**2,576**	**2,405**	**7.1%**	**7,455**	**7,023**	**6.1%**
Marketing and selling expenses	–1,100	–1,079	2.0%	–3,348	–3,208	4.4%
Administration expenses	–267	–283	–5.5%	–820	–815	0.5%
Research and development costs	–558	–542	3.0%	–1,638	–1,588	3.1%
Impairment losses and reversals of impairment losses on financial assets (net)	–1	32	> 100.0%	–3	24	> 100.0%
Other operating expenses and income	–40	–42	–4.9%	–41	–50	–18.3%
Operating result (EBIT)[2]	**608**	**491**	**23.8%**	**1,605**	**1,386**	**15.9%**
Financial result	–135	–56	> 100.0%	–309	–182	69.8%
Profit before income tax	**473**	**435**	**8.7%**	**1,297**	**1,204**	**7.7%**
Income tax	–134	–112	19.8%	–337	–303	11.1%
Profit after tax from continuing operations	**339**	**323**	**4.9%**	**960**	**901**	**6.6%**
Profit after tax from discontinued operation	**2**	**22**	**–88.8%**	**43**	**37**	**14.1%**
Profit after tax	**342**	**345**	**–1.0%**	**1,002**	**938**	**6.9%**
Non-controlling interests	1	–5	> 100.0%	–	–10	–
Net income	**343**	**340**	**0.8%**	**1,002**	**928**	**8.0%**

[1] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".
[2] Not defined by International Financial Reporting Standards (IFRS).

The positive development of sales led to an increase of 7.1% in gross profit to € 2,576 million (Q3 2018: € 2,405 million). The resulting gross margin of the Group, i.e. gross profit as a percentage of net sales, decreased slightly to 63.5% (Q3 2018: 64.2%).

Research and development costs rose by 3.0% to € 558 million (Q3 2018: € 542 million), which led to a Group research spending ratio (research and development costs as a percentage of net sales) of 13.8% (Q3 2018: 14.5%). Accounting for a 79% (Q3 2018: 77%) share of research and development expenses of all business sectors, Healthcare is the most research-intensive business sector of Merck.

The 23.8% increase in the operating result (EBIT) to € 608 million (Q3 2018: € 491 million) was primarily attributable to the positive development of gross profit.

The increase in the negative financial result to € –135 million (Q3 2018: € –56 million) was mainly due to the development of the time value of Merck Share Units within the scope of the Merck Long-Term Incentive Plan. Moreover, higher interest expenses adversely affected the financial result in the third quarter of 2019.

Income tax expenses of € 134 million (Q3 2018: € 112 million) led to an effective tax rate of 28.3% (Q3 2018: 25.7%).

Net income, i.e. profit after tax attributable to Merck KGaA shareholders, increased slightly to € 343 million (Q3 2018: € 340 million), yielding earnings per share of € 0.79 (Q3 2018: € 0.78).

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 pre[1]

	Q3 2019			Q3 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**4,054**	**–**	**4,054**	**3,749**	**–**	**3,749**	**8.1%**
Cost of sales	–1,478	7	–1,471	–1,344	–5	–1,349	9.0%
Gross profit	**2,576**	**7**	**2,583**	**2,405**	**–5**	**2,401**	**7.6%**
Marketing and selling expenses	–1,100	2	–1,099	–1,079	1	–1,077	2.0%
Administration expenses	–267	22	–246	–283	44	–240	2.5%
Research and development costs	–558	–10	–568	–542	–	–542	4.8%
Impairment losses and reversals of impairment losses on financial assets (net)	–1	–	–1	32	–	32	> 100.0%
Other operating expenses and income	–40	26	–14	–42	9	–34	–57.4%
Operating result (EBIT)[1]	**608**			**491**			
Depreciation/amortization/impairment losses/reversals of impairment losses	464	–8	456	428	–5	423	7.8%
EBITDA[1]	**1,072**			**919**			
Restructuring expenses	10	–10	–	9	–9	–	
Integration expenses/IT expenses	28	–28	–	23	–23	–	
Gains (–)/losses (+) on the divestment of businesses	–4	4	–	4	–4	–	
Acquisition-related adjustments	–	–	–	1	–1	–	
Other adjustments	4	–4	–	8	–8	–	
EBITDA pre[1]	**1,111**	**–**	**1,111**	**963**	**–**	**963**	**15.4%**
of which: organic growth[1]							9.8%
of which: exchange rate effects							5.8%
of which: acquisitions/divestments							–0.1%

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

EBITDA pre, the most important financial indicator used to steer operating business, increased by 15.4% to € 1,111 million (Q3 2018: € 963 million). The organic increase in this key performance indicator amounted to 9.8% and was supported by positive foreign exchange effects (5.8%) and the portfolio impact (–0.1%). Relative to net sales, the EBITDA pre margin was 27.4% in the third quarter of 2019 (Q3 2018: 25.7%). Earnings per share pre (earnings per share after net of tax effect of adjustments and amortization of purchased intangible assets) improved by 2.3% to € 1.35 (Q3 2018: € 1.32).

The following table presents the composition of EBITDA pre for the first nine months of 2019 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 pre[1]

	Jan.–Sept. 2019			Jan.–Sept. 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**11,771**	**–**	**11,771**	**10,949**	**–**	**10,949**	**7.5%**
Cost of sales	–4,316	27	–4,289	–3,925	2	–3,924	9.3%
Gross profit	**7,455**	**27**	**7,482**	**7,023**	**2**	**7,025**	**6.5%**
Marketing and selling expenses	–3,348	10	–3,338	–3,208	4	–3,205	4.2%
Administration expenses	–820	69	–750	–815	119	–697	7.7%
Research and development costs	–1,638	23	–1,615	–1,588	–	–1,588	1.7%
Impairment losses and reversals of impairment losses on financial assets (net)	–3	–	–3	24	–	24	> 100.0%
Other operating expenses and income	–41	60	19	–50	65	15	26.5%
Operating result (EBIT)[1]	**1,605**			**1,386**			
Depreciation/amortization/impairment losses/reversals of impairment losses	1,394	–8	1,385	1,297	–22	1,275	8.6%
EBITDA[1]	**2,999**			**2,683**			
Restructuring expenses	111	–111	–	25	–25	–	
Integration expenses/IT expenses	63	–63	–	65	–65	–	
Gains (–)/losses (+) on the divestment of businesses	–4	4	–	43	–43	–	
Acquisition-related adjustments	–	–	–	2	–2	–	
Other adjustments	10	–10	–	33	–33	–	
EBITDA pre[1]	**3,179**	**–**	**3,179**	**2,850**	**–**	**2,850**	**11.5%**
of which: organic growth[1]							9.2%
of which: exchange rate effects							2.4%
of which: acquisitions/divestments							–0.1%

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

In the first nine months of 2019, EBITDA pre rose by 11.5% and amounted to € 3,179 million (January-September 2018: € 2,850 million). This increase was mainly organic (9.2%). The EBITDA pre margin increased by one percentage point to 27.0% (January-September 2018: 26.0%). Earnings per share pre increased by 3.3% to € 4.02 in the first nine months of 2019 (January-September 2018: € 3.89).

NET ASSETS AND FINANCIAL POSITION

MERCK GROUP

Balance sheet structure

	Sept. 30, 2019		Dec. 31, 2018[1]		Change	
	€ million	in %	€ million	in %	€ million	in %
Non-current assets	**28,550**	**67.9%**	**27,652**	**75.0%**	**898**	**3.2%**
of which:						
Goodwill	14,309		13,764		545	
Other intangible assets	6,730		7,237		–507	
Property, plant and equipment[2]	5,376		4,811		565	
Other non-current assets	2,134		1,840		294	
Current assets	**13,518**	**32.1%**	**9,236**	**25.0%**	**4,282**	**46.4%**
of which:						
Inventories	3,135		2,764		371	
Trade and other current receivables	3,440		3,226		214	
Other current financial assets	275		29		247	
Other current assets	1,556		1,048		508	
Cash and cash equivalents	5,111		2,170		2,941	
Total assets	**42,067**	**100.0%**	**36,888**	**100.0%**	**5,179**	**14.0%**
Equity	**18,182**	**43.2%**	**17,233**	**46.7%**	**949**	**5.5%**
Non-current liabilities	**14,230**	**33.8%**	**11,138**	**30.2%**	**3,092**	**27.8%**
of which:						
Provisions for pensions and other post-employment benefits	3,288		2,336		951	
Other non-current provisions	887		780		106	
Non-current financial debt[2]	8,614		6,681		1,933	
Other non-current liabilities	1,441		1,340		101	
Current liabilities	**9,655**	**23.0%**	**8,517**	**23.1%**	**1,138**	**13.4%**
of which:						
Current provisions	545		600		–55	
Current financial debt[2]	3,930		2,215		1,716	
Trade and other current payables/Refund liabilities	2,324		2,238		85	
Other current liabilities	2,856		3,464		–608	
Total liabilities and equity	**42,067**	**100.0%**	**36,888**	**100.0%**	**5,179**	**14.0%**

[1] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

[2] The first-time application of IFRS 16 led to an increase in property, plant and equipment as well as financial debt as of January 1, 2019, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

In the first nine months of 2019, total assets of the Merck Group increased by 14.0% to € 42,067 million (December 31, 2018: € 36,888 million). Since the beginning of 2019, working capital has risen by 14.2% to € 3,980 million (December 31, 2018: € 3,486 million), mainly owing to an increase in trade accounts receivable and inventories.

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

MERCK GROUP

Net financial debt[1]

	Sept. 30, 2019	Dec. 31, 2018	Change	
	€ million	€ million	€ million	in %
Bonds and commercial paper	10,177	7,286	2,891	39.7%
Bank loans	652	620	33	5.3%
Liabilities to related parties	1,036	824	212	25.7%
Loans from third parties and other financial liabilities	66	72	–5	–7.5%
Liabilities from derivatives (financial transactions)	151	90	62	69.2%
Lease liabilities[2]	461	4	457	> 100.0%
Financial debt	**12,544**	**8,896**	**3,649**	**41.0%**
less:				
Cash and cash equivalents	5,111	2,170	2,941	> 100.0%
Current financial assets[3]	113	24	89	> 100.0%
Net financial debt[1]	**7,320**	**6,701**	**619**	**9.2%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] The first-time application of IFRS 16 led to an increase of € 465 million as of January 1, 2019.
[3] Excluding current derivatives (operational).

MERCK GROUP

Reconciliation of net financial debt[1]

€ million	2019
January 1	**6,701**
Currency translation difference	138
Lease liabilities owing to the first-time application of IFRS 16	465
Dividend payments[2]	689
Acquisitions[2]	59
Payments from other divestments[2]	98
Payments for the purchase of non-financial assets[2]	500
Free cash flow[1]	–1,507
Other	177
September 30	**7,320**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] As reported in the Consolidated Cash Flow Statement.

Equity rose in the first nine months of 2019 by 5.5% to € 18,182 million (December 31, 2018: € 17,233 million). Owing to the increase in the balance sheet total, the equity ratio decreased to 43.2% (December 31, 2018: 46.7%). 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 flow[1]

in Mio. €	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
Cash flow from operating activities as reported in the consolidated cash flow statement	931	731	27.3%	2,166	1,479	46.5%
Payments for investments in intangible assets	–29	–15	99.4%	–122	–70	74.7%
Payments from the disposal of intangible assets	8	–	–	24	7	> 100.0%
Payments for investments in property, plant and equipment	–193	–215	–10.6%	–566	–611	–7.3%
Payments from the disposal of property, plant and equipment	–1	9	> 100.0%	5	21	–75.4%
Free cash flow[1]	**715**	**510**	**40.4%**	**1,507**	**827**	**82.4%**

[1] Not defined by International Financial Reporting Standards (IFRS).

Business free cash flow of the Merck Group improved in the third quarter of 2019 to € 731 million (Q3 2018: € 711 million). The increase in EBITDA pre had a positive effect whereas the increases in inventories and receivables adversely affected business free cash flow.

MERCK GROUP

Business free cash flow[1].

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
EBITDA pre[1]	1,111	963	15.4%	3,179	2,850	11.5%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–210	–223	–6.2%	–528	–530	–0.2%
Changes in inventories	–102	–50	> 100.0%	–371	–235	57.5%
Changes in trade accounts receivable and receivables from royalties and licenses	–34	21	> 100.0%	–209	–142	46.7%
Lease payments[2]	–35			–94		
Business free cash flow[1]	**731**	**711**	**2,9 %**	**1.977**	1.943	**1,8 %**

[1] Not defined by International Financial Reporting Standards (IFRS).
[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 1.8% to € 1,977 million in the first nine months of 2019 (January-September 2018: € 1,943 million). This slight improvement was driven by higher EBITDA pre. By contrast, funds tied up in higher inventories and receivables lowered business free cash flow in the first nine months of 2019.

Healthcare

HEALTHCARE

Key figures

€ million	Q3 2019	Q3 2018	Change	Jan.–Sept. 2019	Jan.–Sept. 2018	Change
Net sales	1,756	1,596	10.0%	4,913	4,615	6.5%
Operating result (EBIT)[1]	325	191	70.2%	798	541	47.5%
Margin (% of net sales)[1]	18.5%	12.0%		16.2%	11.7%	
EBITDA[1]	504	372	35.3%	1,355	1,089	24.4%
Margin (% of net sales)[1]	28.7%	23.3%		27.6%	23.6%	
EBITDA pre[1]	501	381	31.3%	1,361	1,141	19.2%
Margin (% of net sales)[1]	28.5%	23.9%		27.7%	24.7%	
Business free cash flow[1]	311	254	22.2%	878	784	12.0%

[1] Not defined by International Financial Reporting Standards (IFRS).

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In the third quarter of 2019, the Healthcare business sector generated organic sales growth of 8.0%. Including positive foreign exchange effects of 2.0%, net sales amounted to € 1,756 million (Q3 2018: € 1,596 million). The exchange rate effect reflects the positive impact of the increase in the value of the U.S. dollar and the Chinese renminbi against the euro, which was softened by the development of individual Latin American currencies.

Sales of the key product lines and products developed in the third quarter of 2019 as follows:

HEALTHCARE

Net sales by major product lines/products

€ million	Q3 2019	Share	Organic growth[1]	Exchange rate effects	Total change	Q3 2018	Share
Oncology	**268**	**15%**	**8.8%**	**0.4%**	**9.1%**	**245**	**15%**
thereof: Erbitux®	222	13%	5.1%	–	5.1%	212	13%
thereof: Bavencio®	29	2%	48.1%	4.4%	52.5%	19	1%
Neurology & Immunology	**407**	**23%**	**2.3%**	**2.7%**	**5.0%**	**387**	**24%**
thereof: Rebif®	318	18%	–15.1%	2.8%	–12.4%	363	23%
thereof: Mavenclad®	89	5%	> 100.0%	2.2%	> 100.0%	25	1%
Fertility	**334**	**19%**	**9.0%**	**2.9%**	**12.0%**	**298**	**19%**
thereof: Gonal-f®	206	12%	10.0%	3.2%	13.1%	182	11%
General Medicine & Endocrinology	**673**	**39%**	**12.7%**	**1.9%**	**14.5%**	**587**	**37%**
thereof: Glucophage®	235	13%	22.1%	2.6%	24.8%	188	12%
thereof: Concor®	143	8%	20.5%	2.5%	23.0%	116	7%
thereof: Euthyrox®	108	6%	17.5%	1.4%	18.9%	91	6%
thereof: Saizen®	60	3%	11.5%	–2.4%	9.1%	55	3%
Other	**75**	**4%**				**79**	**5%**
Healthcare	**1,756**	**100%**	**8.0%**	**2.0%**	**10.0%**	**1,596**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

Sales of the drug Rebif®, which is used to treat relapsing forms of multiple sclerosis, saw a double-digit organic decline of –15.1%. Including a positive exchange rate effect of 2.8%, sales amounted to € 318 million (Q3 2018: € 363 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 were responsible for the organic sales decline of –19.3%. A price increase in January 2019 as well as the positive exchange rate effect stemming from the U.S. dollar could not compensate for this development. Consequently, sales in North America declined to € 205 million (Q3 2018: € 241 million). In Europe, sales also declined organically by –8.9% to € 84 million (Q3 2018: € 91 million) owing to lasting competitive pressure.

In the third quarter of 2019, sales of the oncology drug Erbitux® increased organically by 5.1% to € 222 million (Q3 2018: € 212 million). The favorable growth is primarily attributable to performance in the Asia-Pacific region, where sales rose organically by 37.0%. Sales amounted to € 98 million (Q3 2018: € 68 million). The addition of Erbitux® to the National Reimbursement Drug List in China was a major driver. Performance in Europe continued to be influenced by the difficult competitive environment. Organically, sales declined by –12.2%, and consequently sales in Europe decreased to € 98 million (Q3 2018: € 111 million).

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Product sales and organic growth[1] of Rebif® and Erbitux® by region – Q3 2019

		Total	Europe	North America	Asia-Pacific (APAC)	Latin America	Middle East and Africa (MEA)
Rebif®	€ million	318	84	205	3	10	16
	Organic growth[1] in %	–15.1%	–8.9%	–19.3%	–7.9%	14.1%	–9.5%
	% of sales	100%	26%	65%	1%	3%	5%
Erbitux®	€ million	222	98	–	98	17	10
	Organic growth[1] in %	5.1%	–12.2%	–	36.8%	25.1%	–33.6%
	% of sales	100%	44%	–	44%	7%	5%

[1] Not defined by International Financial Reporting Standards (IFRS).

Sales of the product Mavenclad®, a medicine for oral short-course treatment of relapsing multiple sclerosis in patients with high disease activity, totaled € 89 million (Q3 2018: € 25 million). Among other things, this increase reflected the March 2019 approval of Mavenclad® in the United States. Sales of the immuno-oncology drug Bavencio® increased to € 29 million (Q3 2018: € 19 million). The approval of Bavencio® in the United States in May 2019 in combination with axitinib for the treatment of patients with advanced renal cell carcinoma had a positive impact on the development of sales.

Owing to organic growth of 10.0% and positive foreign exchange effects, sales of Gonal-f®, the leading recombinant hormone for the treatment of infertility, increased to € 206 million (Q3 2018: € 182 million). In particular, performance in North America and China contributed to this with double-digit organic growth rates.

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 12.7%. Including positive foreign exchange effects, net sales amounted to € 673 million (Q3 2018: € 587 million). Delivering organic sales growth of 22.1%, the diabetes medicine Glucophage®, the top-selling product in this franchise, was one of the main drivers of this development. Particularly owing to the strong performance in China, net sales of Glucophage® increased to € 235 million (Q3 2018: € 188 million). The products Concor®, Euthyrox® and Saizen® also contributed to this positive development with double-digit organic growth rates.

Net sales of the business sector by region developed in the third quarter of 2019 as follows:

HEALTHCARE

Net sales by region

€ million	Q3 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2018	Share
Europe	551	31%	0.9%	0.7%	–	1.5%	543	34%
North America	395	23%	0.6%	5.5%	–	6.1%	372	23%
Asia-Pacific (APAC)	509	29%	23.4%	3.5%	–	26.9%	401	25%
Latin America	178	10%	16.9%	–5.9%	–	10.9%	161	10%
Middle East and Africa (MEA)	122	7%	–0.9%	3.3%	–	2.4%	119	8%
Healthcare	**1,756**	**100%**	**8.0%**	**2.0%**	**–**	**10.0%**	**1,596**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

In the first nine months of 2019, the business sector generated net sales of € 4,913 million (January-September 2018: € 4,615 million). Both organic growth of 5.4% and foreign exchange tailwinds of 1.0% contributed to this development. The key driver was on the one hand the 25.2% organic growth of Glucophage®, which led to net sales of € 653 million (January-September 2018: € 517 million) and mainly benefited from performance in China. On the other hand, the share of sales accounted for by Mavenclad® and Bavencio® grew steadily and contributed to the business sector's positive overall performance. Sales of Mavenclad® rose to € 194 million (January-September 2018: € 58 million) and sales of Bavencio® increased to € 74 million (January-September 2018: € 48 million). The products Concor® and Euthyrox®, which both generated double-digit organic growth rates, were also responsible for the net sales increase in Healthcare. By contrast, Rebif® recorded an organic decline of –15.9% to € 947 million in the first nine months of 2019 (January-September 2018: € 1,094 million).

In the first nine months of 2019, the sales of the major product lines and products developed as follows:

HEALTHCARE

Net sales by major product lines/products

€ million	Jan.–Sept. 2019	Share	Organic growth[1]	Exchange rate effects	Total change	Jan.–Sept. 2018	Share
Oncology	**746**	**15%**	**6.2%**	**–0.6%**	**5.6%**	**707**	**15%**
thereof: Erbitux®	633	13%	4.2%	–1.1%	3.1%	615	13%
thereof: Bavencio®	74	2%	48.9%	4.8%	53.7%	48	1%
Neurology & Immunology	**1,141**	**23%**	**–3.3%**	**2.3%**	**–1.0%**	**1,152**	**25%**
thereof: Rebif®	947	19%	–15.9%	2.5%	–13.4%	1,094	24%
thereof: Mavenclad®	194	4%	> 100.0%	–0.1%	> 100.0%	58	1%
Fertility	**934**	**19%**	**6.7%**	**1.4%**	**8.1%**	**864**	**19%**
thereof: Gonal-f®	565	11%	4.5%	1.6%	6.1%	532	12%
General Medicine & Endocrinology	**1,882**	**39%**	**10.8%**	**0.7%**	**11.5%**	**1,688**	**37%**
thereof: Glucophage®	653	13%	25.2%	1.1%	26.2%	517	11%
thereof: Concor®	384	8%	13.6%	0.9%	14.5%	335	7%
thereof: Euthyrox®	297	6%	11.9%	0.1%	12.0%	265	6%
thereof: Saizen®	173	4%	3.5%	–3.1%	0.4%	172	4%
Other	**209**	**4%**				**204**	**4%**
Healthcare	**4,913**	**100%**	**5.4%**	**1.0%**	**6.5%**	**4,615**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

In the first nine months of 2019, sales by region developed as follows:

HEALTHCARE

Net sales by region

€ million	**Jan.–Sept. 2019**	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2018	Share
Europe	1,647	33%	1.3%	–0.7%	–	0.6%	1,637	35%
North America	1,063	22%	–6.5%	5.3%	–	–1.2%	1,076	23%
Asia-Pacific (APAC)	1,366	28%	21.8%	2.0%	–	23.7%	1,104	24%
Latin America	511	10%	11.4%	–6.4%	–	5.0%	486	11%
Middle East and Africa (MEA)	327	7%	1.4%	3.4%	–	4.7%	312	7%
Healthcare	**4,913**	**100%**	**5.4%**	**1.0%**	**–**	**6.5%**	**4,615**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

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 pre[1]

	Q3 2019			Q3 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**1,756**	**–**	**1,756**	**1,596**	**–**	**1,596**	**10.0%**
Cost of sales	–418	–	–418	–364	–	–364	14.9%
Gross profit	**1,338**	**–**	**1,338**	**1,233**	**–**	**1,233**	**8.5%**
Marketing and selling expenses	–561	2	–558	–573	2	–571	–2.3%
Administration expenses	–82	2	–81	–81	9	–72	11.5%
Research and development costs	–429	1	–428	–409	–	–409	4.5%
Impairment losses and reversals of impairment losses on financial assets (net)	1	–	1	–3	–	–3	>100.0%
Other operating expenses and income	58	–8	51	25	–1	24	>100.0%
Operating result (EBIT)[1]	**325**			**191**			
Depreciation/amortization/impairment losses/reversals of impairment losses	178	–	178	181	–	181	–1.6%
EBITDA[1]	**504**			**372**			
Restructuring expenses	1	–1	–	5	–5	–	
Integration expenses/IT expenses	2	–2	–	5	–5	–	
Gains (–)/losses (+) on the divestment of businesses	–6	6	–	–2	2	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	1	–1	–	
EBITDA pre[1]	**501**	**–**	**501**	**381**	**–**	**381**	**31.3%**
of which: organic growth[1]							24.8%
of which: exchange rate effects							6.5%
of which: acquisitions/divestments							–

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

In the third quarter of 2019, gross profit of the Healthcare business sector increased to € 1,338 million (Q3 2018: € 1,233 million). The resulting gross margin was 76.2% (Q3 2018: 77.2%). Research and development costs reflected continued investments in the Biopharma development pipeline and amounted to € 429 million (Q3 2018: € 409 million). The change in other operating expenses and income was primarily attributable to income from the receipt of the deferred upfront cash payment from the alliance with GlaxoSmithKline plc., United Kingdom, to co-develop and co-commercialize the bifunctional fusion protein bintrafusp alfa. In comparison with the year-earlier quarter, this transaction contributed around € 30 million to the operating result. EBITDA pre soared by 31.3% to € 501 million in the third quarter of 2019 (Q3 2018: € 381 million). Organic earnings growth amounted to 24.8% and was supported by positive exchange rate effects of 6.5%. The EBITDA pre margin rose to 28.5% (Q3 2018: 23.9%).

The following table presents the composition of EBITDA pre for the first nine months of 2019 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 pre[1]

	Jan.–Sept. 2019			Jan.–Sept. 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**4,913**	**–**	**4,913**	**4,615**	**–**	**4,615**	**6.5%**
Cost of sales	–1,164	–	–1,164	–1,040	–	–1,040	11.9%
Gross profit	**3,750**	**–**	**3,750**	**3,575**	**–**	**3,575**	**4.9%**
Marketing and selling expenses	–1,710	2	–1,708	–1,715	1	–1,714	–0.4%
Administration expenses	–254	6	–248	–241	16	–225	10.2%
Research and development costs	–1,204	1	–1,203	–1,194	–	–1,195	0.7%
Impairment losses and reversals of impairment losses on financial assets (net)	–1	–	–1	–8	–	–8	–93.7%
Other operating expenses and income	217	–4	213	125	35	160	32.9%
Operating result (EBIT)[1]	**798**			**541**			
Depreciation/amortization/impairment losses/reversals of impairment losses	557	–	557	548	–	548	1.6%
EBITDA[1]	**1,355**			**1,089**		–	
Restructuring expenses	6	–6	–	5	–5	–	
Integration expenses/IT expenses	8	–8	–	12	–12	–	
Gains (–)/losses (+) on the divestment of businesses	–8	8	–	35	–35	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**1,361**	**–**	**1,361**	**1,141**	**–**	**1,141**	**19.2%**
of which: organic growth[1]							16.0%
of which: exchange rate effects							3.2%
of which: acquisitions/divestments							–

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

In the first nine months of 2019, the Healthcare business sector recorded an increase of 19.2% in EBITDA pre, which amounted to € 1,361 million (January-September 2018: € 1,141 million). This performance was driven by both organic sales growth of 16.0% and positive foreign exchange effects of 3.2%. On the one hand, income of € 60 million from the receipt of the deferred upfront payment for bintrafusp alfa had a positive effect on the operating result. In addition, the reporting period included a milestone payment for the approval of Bavencio® in combination with axitinib in the United States as a first-line treatment in patients with advanced renal carcinoma (RCC) as well as a milestone payment of € 75 million from BioMarin Pharmaceutical Inc., USA, in connection with the sale of the rights to Palynziq™ in 2016. In this connection, the previous-year period also included a payment of € 50 million. The EBITDA pre margin increased by three percentage points to 27.7% (January-September 2018: 24.7%).

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the third quarter of 2019, business free cash flow amounted to € 311 million (Q3 2018: € 254 million). The increase is mainly attributable to the growth of EBITDA pre, whereas higher receivables had a contrary effect.

HEALTHCARE

Business free cash flow[1]

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
EBITDA pre[1]	501	381	31.3%	1,361	1,141	19.2%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–98	–103	–5.4%	–220	–215	2.3%
Changes in inventories	–7	–18	–62.6%	–71	–60	17.8%
Changes in trade accounts receivable and receivables from royalties and licenses	–73	–6	> 100.0%	–156	–82	89.9%
Lease payments[2]	–13			–36		
Business free cash flow[1]	**311**	**254**	**22.2%**	**878**	**784**	**12.0%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Excluding payments for low-value leases and interest components included in lease payments.

In the first nine months of 2019, the Healthcare business sector generated business free cash flow of € 878 million (January-September 2018: € 784 million). The positive development of EBITDA pre was counteracted by higher receivables.

Life Science

LIFE SCIENCE

Key figures

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
Net sales	1,715	1,527	12.3%	5,082	4,557	11.5%
Operating result (EBIT)[1]	316	277	14.2%	951	804	18.3%
Margin (% of net sales)[1]	18.4%	18.1%		18.7%	17.6%	
EBITDA[1]	511	449	13.7%	1,536	1,333	15.2%
Margin (% of net sales)[1]	29.8%	29.4%		30.2%	29.3%	
EBITDA pre[1]	531	460	15.4%	1,580	1,367	15.6%
Margin (% of net sales)[1]	31.0%	30.1%		31.1%	30.0%	
Business free cash flow[1]	410	411	–0.2%	1,002	1,055	–5.0%

[1] Not defined by International Financial Reporting Standards (IFRS).

DEVELOPMENT OF SALES AND RESULTS OF OPERATIONS

In the third quarter of 2019, Life Science sales increased by 12.3% over the year-earlier period to € 1,715 million (Q3 2018: € 1,527 million). This reflects strong organic sales growth of 10.0%, a favorable foreign exchange impact of 3.0% and a negative portfolio effect of –0.7%. All three business units contributed to organic growth, with the largest contribution coming from Process Solutions, followed by Applied Solutions.

LIFE SCIENCE

Net sales by business unit

€ million	**Q3 2019**	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2018[2]	Share
Process Solutions	756	44%	15.6%	3.4%	–	19.0%	636	41%
Research Solutions	540	32%	5.2%	2.9%	–	8.1%	500	33%
Applied Solutions	418	24%	6.8%	2.6%	–2.7%	6.7%	392	26%
Life Science	**1,715**	**100%**	**10.0%**	**3.0%**	**–0.7%**	**12.3%**	**1,527**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[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 15.6%, which was the highest rate within the Life Science business sector. Assisted by a favorable foreign exchange effect of 3.4%, sales amounted to € 756 million in the third quarter of 2019 (Q3 2018: € 636 million). Process Solutions thus accounted for 44% of Life Science net sales. BioProcessing and Process Solutions Services both contributed double-digit sales increases. In regional terms, Process Solutions delivered double-digit growth in all regions.

The Research Solutions business unit, which provides products and services to support life science research for pharmaceutical, biotechnology, and academic research laboratories, recorded an organic sales increase of 5.2%. Assisted by a favorable foreign exchange effect of 2.9%, sales totaled € 540 million in the third quarter of 2019 (Q3 2018: € 500 million). Organic growth was driven by all business fields. Research Solutions thus accounted for 32% of Life Science net sales. In regional terms, Asia-Pacific was the strongest growth driver for Research Solutions.

The Applied Solutions business unit, which accounted for a 24% share of Life Science sales in the third quarter of 2019, delivered strong organic sales growth of 6.8% with its broad range of products for researchers as well as scientific and industrial laboratories. The negative portfolio impact was attributable to the Flow Cytometry divestment. Supported by a favorable foreign exchange effect of 2.6%, sales totaled € 418 million in the third quarter of 2019 (Q3 2018: € 392 million).

The sales performance of Applied Solutions was driven by all business fields and particularly in Europe and Asia-Pacific.

Net sales of the business sector by region developed in the third quarter of 2019 as follows:

LIFE SCIENCE

Net sales by region

€ million	**Q3 2019**	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2018	Share
Europe	556	33%	8.3%	0.1%	–0.5%	7.9%	516	34%
North America	626	37%	9.7%	6.2%	–0.8%	15.0%	544	36%
Asia-Pacific (APAC)	436	25%	11.2%	4.1%	–0.9%	14.5%	381	25%
Latin America	74	4%	17.3%	–6.1%	–0.2%	11.0%	67	4%
Middle East and Africa (MEA)	23	1%	13.2%	1.1%	–1.1%	13.3%	21	1%
Life Science	**1,715**	**100%**	**10.0%**	**3.0%**	**–0.7%**	**12.3%**	**1,527**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

In the first nine months of 2019, Life Science generated an 11.5% increase in net sales over the year-earlier period. This reflects organic growth of 9.4%, and a favorable foreign exchange impact of 2.6%. All three business units contributed to organic growth, with the largest contribution coming from Process Solutions, followed by Applied Solutions. Taking these effects into account, Life Science net sales increased to € 5,082 million in the first nine months of 2019 (January-September 2018: € 4,557 million).

LIFE SCIENCE

Net sales by business unit

€ million	**Jan.–Sept. 2019**	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2018[2]	Share
Process Solutions	2,200	43%	15.7%	3.2%	–	18.9%	1,851	41%
Research Solutions	1,629	32%	4.3%	2.5%	–	6.8%	1,525	33%
Applied Solutions	1,252	25%	6.3%	2.0%	–2.3%	6.0%	1,181	26%
Life Science	**5,082**	**100%**	**9.4%**	**2.6%**	**–0.6%**	**11.5%**	**4,557**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year’s figures have been adjusted owing to an internal realignment.

In the first nine months of 2019, the Process Solutions business unit generated organic sales growth of 15.7%, which was the highest rate within the Life Science business sector. Assisted by a favorable foreign exchange effect of 3.2%, sales totaled € 2,200 million (January-September 2018: € 1,851 million). Process Solutions thus accounted for 43% of Life Science net sales. Nearly all businesses contributed to the sales increase with double-digit growth rates. Geographically, double-digit growth was generated in all regions.

The Research Solutions business unit recorded an organic sales increase of 4.3%. Supported by a favorable foreign exchange effect of 2.5%, sales amounted to € 1,629 million in the first nine months of 2019 (January-September 2018: € 1,525 million). Organic growth was driven by all business fields. Research Solutions thus accounted for 32% of Life Science net sales. In regional terms, Asia-Pacific was the strongest growth driver for Research Solutions.

The Applied Solutions business unit, which accounted for a 25% share of Life Science net sales in the first nine months of 2019, delivered strong organic sales growth of 6.3%. The negative portfolio impact was attributable to the divestment of the Flow Cytometry business. Assisted by a favorable foreign exchange effect of 2.0%, sales totaled € 1,252 million in the first nine months of 2019 (January-September 2018: € 1,181 million). The sales performance of Applied Solutions was driven by all business fields, particularly in Europe and Asia-Pacific.

Regionally, net sales developed as follows in the first nine months of 2019:

LIFE SCIENCE

Net sales by region

€ million	Jan.–Sept. 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2018	Share
Europe	1,700	34%	8.2%	0.2%	–0.5%	7.9%	1,575	35%
North America	1,820	36%	9.1%	6.5%	–0.7%	14.9%	1,585	35%
Asia-Pacific (APAC)	1,282	25%	10.6%	2.8%	–0.7%	12.6%	1,138	25%
Latin America	211	4%	16.3%	–8.3%	–0.1%	7.9%	196	4%
Middle East and Africa (MEA)	68	1%	8.8%	–1.1%	–0.4%	7.3%	64	1%
Life Science	**5,082**	**100%**	**9.4%**	**2.6%**	**–0.6%**	**11.5%**	**4,557**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

The following table presents the composition of EBITDA pre for the third quarter of 2019 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 pre[1]

	Q3 2019			Q3 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**1,715**	**–**	**1,715**	**1,527**	**–**	**1,527**	**12.3%**
Cost of sales	–748	2	–746	–656	–5	–661	12.8%
Gross profit	**967**	**2**	**970**	**871**	**–5**	**867**	**11.9%**
Marketing and selling expenses	–474	1	–474	–443	–	–443	6.9%
Administration expenses	–83	6	–77	–85	16	–69	11.3%
Research and development costs	–67	–	–67	–59	–	–59	14.1%
Impairment losses and reversals of impairment losses on financial assets (net)	–3	–	–3	–	–	–	–
Other operating expenses and income	–24	11	–13	–8	5	–3	> 100.0 %
Operating result (EBIT)[1]	**316**			**277**			
Depreciation/amortization/impairment losses/reversals of impairment losses	195	–	195	173	–5	168	15.9%
EBITDA[1]	**511**			**449**			
Restructuring expenses	6	–6	–	–2	2	–	
Integration expenses/IT expenses	12	–12	–	12	–12	–	
Gains (–)/losses (+) on the divestment of businesses	2	–2	–	–	–	–	
Acquisition-related adjustments	–	–	–	1	–1	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**531**	**–**	**531**	**460**	**–**	**460**	**15.4%**
of which: organic growth[1]							13.7%
of which: exchange rate effects							1.9%
of which: acquisitions/divestments							–0.3%

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

In the third quarter of 2019, adjusted gross profit increased by 11.9% to € 970 million (Q3 2018: € 867 million). The strong increase was driven by organic sales growth across all business units. The gross margin of Life Science, i.e. gross profit as a percentage of net sales, amounted to 56.5% (Q3 2018: 56.7%). After eliminating adjustments and depreciation, EBITDA pre rose by 15.4% to € 531 million (Q3 2018: € 460 million). This double-digit increase in the most important key figure used to steer the operating business was mainly organic, but was also supported by foreign exchange effects. The resulting margin, i.e. EBITDA pre as a percentage of net sales, increased in the third quarter of 2019 to 31.0% (Q3 2018: 30.1%). This reflects the strong performance of the operating businesses and the continued focus on driving sales and managing costs.

The following table presents the composition of EBITDA pre for the first nine months of 2019 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 pre[1]

	Jan.–Sept. 2019			Jan.–Sept. 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**5,082**	**–**	**5,082**	**4,557**	**–**	**4,557**	**11.5%**
Cost of sales	–2,191	3	–2,187	–1,984	2	–1,982	10.3%
Gross profit	**2,891**	**3**	**2,894**	**2,574**	**2**	**2,575**	**12.4%**
Marketing and selling expenses	–1,434	2	–1,432	–1,304	2	–1,302	10.0%
Administration expenses	–239	12	–228	–228	29	–199	14.4%
Research and development costs	–199	–	–198	–180	–	–179	10.7%
Impairment losses and reversals of impairment losses on financial assets (net)	–3	–	–3	–2	–	–2	70.2%
Other operating expenses and income	–66	28	–38	–57	21	–36	6.6%
Operating result (EBIT)[1]	**951**			**804**			
Depreciation/amortization/impairment losses/reversals of impairment losses	585	–	585	530	–21	509	14.9%
EBITDA[1]	**1,536**			**1,333**			
Restructuring expenses	11	–11	–	–	–	–	
Integration expenses/IT expenses	28	–28	–	31	–31	–	
Gains (–)/losses (+) on the divestment of businesses	4	–4	–	–	–	–	
Acquisition-related adjustments	–	–	–	2	–2	–	
Other adjustments	–	–	–	1	–1	–	
EBITDA pre[1]	**1,580**	**–**	**1,580**	**1,367**	**–**	**1,367**	**15.6%**
of which: organic growth[1]							14,6 %
of which: exchange rate effects							1,2 %
of which: acquisitions/divestments							–0,2 %

[1] Not defined by International Financial Reporting Standards (IFRS).

[2] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

In the first nine months of 2019, adjusted gross profit increased by 12.4% to € 2,894 million (January-September 2018: € 2,575 million). This increase was driven by organic sales growth across all business units. After eliminating adjustments and depreciation, EBITDA pre rose by 15.6% to € 1,580 million (January-September 2018: € 1,367 million). The improvement in this key figure was due almost exclusively to organic growth. This reflects the strong performance of the operating businesses and the continued focus on driving sales and managing costs.

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the third quarter of 2019, Life Science generated business free cash flow of € 410 million (Q3 2018: € 411 million). Higher EBITDA pre was primarily offset by the build-up of inventories. Consequently, business free cash flow was at the level of the year-earlier quarter.

LIFE SCIENCE

Business free cash flow[1]

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
EBITDA pre[1]	531	460	15.4%	1,580	1,367	15.6%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–76	–76	1.2%	–214	–173	23.8%
Changes in inventories	–81	–33	> 100.0%	–230	–132	74.5%
Changes in trade accounts receivable and receivables from royalties and licenses	51	59	–14.0%	–97	–8	> 100.0%
Lease payments[2]	–14			–38		
Business free cash flow[1]	**410**	**411**	**–0.2%**	**1,002**	1,055	**–5.0%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Excluding payments for low-value leases and interest components included in lease payments.

In the first nine months of 2019, Life Science generated business free cash flow of € 1,002 million (January-September 2018: € 1,055 million). This development was primarily attributable to the sales-related increase in inventories and receivables as well as stronger capital spending, which was partially offset by higher EBITDA pre.

Performance Materials

PERFORMANCE MATERIALS

Key figures

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
Net sales	583	626	–6.9%	1,776	1,776	–
Operating result (EBIT)[1]	98	142	–31.1%	293	409	–28.4%
Margin (% of net sales)[1]	16.8%	22.8%		16.5%	23.0%	
EBITDA[1]	169	202	–16.2%	488	586	–16.8%
Margin (% of net sales)[1]	29.1%	32.3%		27.5%	33.0%	
EBITDA pre[1]	177	203	–12.7%	560	595	–5.8%
Margin (% of net sales)[1]	30.5%	32.5%		31.6%	33.5%	
Business free cash flow[1]	121	152	–20.8%	446	432	3.2%

[1] Not defined by International Financial Reporting Standards (IFRS).

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In the third quarter of 2019, net sales of the Performance Materials business sector decreased by –6.9% to € 583 million (Q3 2018: € 626 million). This was mainly due to sales in the year-earlier quarter by the Display Solutions business unit with panel makers in China to build up project-related production capacities. The corresponding organic decline of –10.6% was partly offset by positive foreign exchange effects of 3.7% resulting mainly from a stronger U.S. dollar in comparison with the previous year as well as Asian currencies, such as the Taiwan dollar and the Japanese yen.

PERFORMANCE MATERIALS

Net sales by business unit

€ million	**Q3 2019**	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2018	Share
Display Solutions	316	54%	–15.1%	3.5%	–	–11.6%	357	57%
Semiconductor Solutions	154	27%	–3.5%	4.8%	–	1.3%	152	24%
Surface Solutions	112	19%	–6.2%	3.1%	–	–3.2%	115	19%
Other	1	–	22.4%	2.4%	–	24.9%	1	–
Performance Materials	**583**	**100%**	**–10.6%**	**3.7%**	**–**	**–6.9%**	**626**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

The Display Solutions business unit, consisting mainly of the business with liquid crystals, photoresists for display applications and OLED materials, recorded an organic decline as expected in the third quarter of 2019. It amounted to –15.1% and was primarily driven by the expected decrease orders from panel makers in China to build up production capacities.

The Semiconductor Solutions business unit comprises the business with materials used in integrated circuit production. Overall, in the third quarter of 2019, customer silicon wafer production output remained below expectations against the backdrop of continued weakness in the semiconductor market. Owing to weak market conditions, sales declined organically by –3.5%. However, this was more than offset by positive exchange rate effects of 4.8%.

In the third quarter of 2019, net sales of the Surface Solutions business unit declined organically by –6.2%. This was attributable to weaker demand, particulary from the automotive industry.

Net sales of the business sector by region developed in the third quarter of 2019 as follows:

PERFORMANCE MATERIALS

Net sales by region

€ million	**Q3 2019**	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2018	Share
Europe	50	9%	–5.3%	0.1%	–	–5.2%	52	8%
North America	52	9%	–7.7%	5.3%	–	–2.4%	53	9%
Asia-Pacific (APAC)	469	80%	–12.0%	4.0%	–	–8.0%	509	82%
Latin America	9	1%	0.7%	0.6%	–	1.3%	9	1%
Middle East and Africa (MEA)	3	1%	> 100.0%	4.9%	–	> 100.0%	2	–
Performance Materials	**583**	**100%**	**–10.6%**	**3.7%**	**–**	**–6.9%**	**626**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

In the first nine months of 2019, the net sales of the Performance Materials business sector were at the previous year's level. An organic decline of –3.4% was almost completely offset by positive exchange rate effects resulting mainly from a stronger U.S. dollar as well as Asian currencies, such as the Taiwan dollar and the Japanese yen.

The organic sales development in the first nine months of 2019 was particularly due to the business with established liquid crystal technologies. Even though they continued to benefit in the first half of 2019 from projects by panel manufacturers in China to ramp up production capacities, the decline in these projects in the third quarter of 2019 led to an overall organic decrease in net sales.

In the first nine months of 2019, the Semiconductor Solutions business unit also recorded an organic sales decline, which was driven by weak economic activity.

The Surface Solutions business unit also saw an organic decline in net sales, which was mainly due to weaker demand from the automotive industry.

In the first nine months of 2019, net sales by region developed as follows:

PERFORMANCE MATERIALS

Net sales by region

€ million	**Jan.–Sept. 2019**	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2018	Share
Europe	160	9%	–3.8%	0.1%	–	–3.7%	167	9%
North America	162	9%	–5.8%	5.8%	–	–	162	9%
Asia-Pacific (APAC)	1,420	80%	–3.2%	3.5%	–	0.3%	1,416	80%
Latin America	24	1%	–4.4%	–0.1%	–	–4.5%	26	2%
Middle East and Africa (MEA)	9	1%	40.3%	1.8%	–	42.1%	6	–
Performance Materials	**1,776**	**100%**	**–3.4%**	**3.3%**	**–**	**–**	**1,776**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

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.

PERFORMANCE MATERIALS

Reconciliation EBITDA pre[1]

	Q3 2019			Q3 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**583**	**–**	**583**	**626**	**–**	**626**	**–6.9%**
Cost of sales	–315	5	–310	–322	–	–322	–3.8%
Gross profit	**268**	**5**	**273**	**304**	**–**	**303**	**–10.1%**
Marketing and selling expenses	–61	–1	–62	–62	–	–62	0.7%
Administration expenses	–30	7	–23	–23	1	–22	3.9%
Research and development costs	–48	–11	–59	–65	–	–65	–9.5%
Impairment losses and reversals of impairment losses on financial assets (net)	1	–	1	–	–	–	–
Other operating expenses and income	–32	16	–15	–11	–	–11	37.0%
Operating result (EBIT)[1]	**98**			**142**			
Depreciation/amortization/impairment losses/reversals of impairment losses	71	–8	63	60	–	60	5.6%
EBITDA[1]	**169**			**202**			
Restructuring expenses	1	–1	–	–	–	–	
Integration expenses/IT expenses	7	–7	–	1	–1	–	
Gains (–)/losses (+) on the divestment of businesses	–	–	–	–	–	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**177**	**–**	**177**	**203**	**–**	**203**	**–12.7%**
of which: organic growth[1]							–19.3%
of which: exchange rate effects							6.7%
of which: acquisitions/divestments							–

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

Adjusted gross profit for the Performance Materials business sector amounted to € 273 million in the third quarter of 2019 (Q3 2018: € 303 million). This was –10.1% lower than in the year-earlier quarter, resulting in a gross margin of 46.8% (Q3 2018: 48.5%). The operating result (EBIT) decreased by € 44 million to € 98 million in the third quarter of 2019 (Q3 2018: € 142 million). This was primarily attributable to the normalization of sales from capacity ramp-up projects by panel makers in China, which reached their highest levels in the third and fourth quarter of last year. Further causes for the decline in the operating result (EBIT) were restructuring expenses within the scope of the Bright Future transformation program, costs in connection with the upcoming integration of Versum as well as the lower absorption of fixed costs amid the organic decline in sales in the Semiconductor Solutions and Surface Solutions business units. EBITDA pre of the business sector declined by –12.7% to € 177 million (Q3 2018: € 203 million). At 30.5%, the EBITDA pre margin was below the year-earlier figure (Q3 2018: 32.5%).

The following table presents the composition of EBITDA pre for the first nine months of 2019 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 pre[1]

	Jan.–Sept. 2019			Jan.–Sept. 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**1,776**	**–**	**1,776**	**1,776**	**–**	**1,776**	**–**
Cost of sales	–960	23	–936	–897	–	–897	4.4%
Gross profit	**816**	**23**	**839**	**879**	**–**	**879**	**–4.5%**
Marketing and selling expenses	–193	6	–187	–183	–	–183	2.6%
Administration expenses	–78	9	–69	–72	9	–64	8.4%
Research and development costs	–194	22	–172	–183	–	–183	–5.9%
Impairment losses and reversals of impairment losses on financial assets (net)	–	–	–	–	–	–	–
Other operating expenses and income	–58	21	–37	–31	1	–30	23.2%
Operating result (EBIT)[1]	**293**			**409**			
Depreciation/amortization/impairment losses/reversals of impairment losses	195	–8	187	177	–1	176	6.1%
EBITDA[1]	**488**			**586**			
Restructuring expenses	61	–61	–	–	–	–	
Integration expenses/IT expenses	11	–11	–	8	–8	–	
Gains (–)/losses (+) on the divestment of businesses	–	–	–	–	–	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	1	–1	–	
EBITDA pre[1]	**560**	**–**	**560**	**595**	**–**	**595**	**–5.8%**
of which: organic growth[1]							–12.1%
of which: exchange rate effects							6.4%
of which: acquisitions/divestments							–

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes" under "Supplemental Financial Information".

At € 839 million, the business sector's adjusted gross profit for the first nine months of 2019 was –4.5% below the previous year's level (January-September 2018: € 879 million). At € 293 million, the operating result (EBIT) was € 116 million lower than in the year-earlier period (January-September 2018: € 409 million). EBITDA pre of the business sector decreased by –5.8% to € 560 million (January-September 2018: € 595 million). Consequently, at 31.6%, the EBITDA pre margin was below the year-earlier figure of 33.5%

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the third quarter of 2019, business free cash flow of the Performance Materials business sector decreased by −20.8% to € 121 million (Q3 2018: € 152 million). Apart from lower EBITDA pre, the inventory build-up was another main driver of this development. This could only be partially offset by lower receivables.

PERFORMANCE MATERIALS

Business free cash flow[1]

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
EBITDA pre[1]	177	203	−12.7%	560	595	−5.8%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	−26	−31	−17.6%	−69	−77	−11.0%
Changes in inventories	−14	1	> 100.0%	−70	−44	60.4%
Changes in trade accounts receivable and receivables from royalties and licenses	−14	−20	−29.2%	31	−42	> 100.0%
Lease payments[2]	−2			−7		
Business free cash flow[1]	**121**	**152**	**−20.8%**	**446**	**432**	**3.2%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Excluding payments for low-value leases and interest components included in lease payments.

In the first nine months of 2019, business free cash flow rose by 3.2% to € 446 million (Q3 2018: € 432 million). The slight increase was mainly due to the decline in receivables.

Corporate and Other

Corporate and Other comprises Group administration expenses for Group functions that cannot be directly allocated to the business sectors, such as Finance, Procurement, Legal, Communications, and Human Resources. Corporate costs additionally encompass expenses for central, non-allocated IT functions, including expenses related to the expansion and harmonization of IT systems within the Merck Group as well as research and development costs spanning business sectors.

CORPORATE AND OTHER

Key figures

€ million	**Q3 2019**	Q3 2018	Change	**Jan.–Sept. 2019**	Jan.–Sept. 2018	Change
Operating result (EBIT)[1]	–131	–119	10.2%	–437	–369	18.5%
EBITDA[1]	–111	–105	6.3%	–380	–326	16.6%
EBITDA pre[1]	–98	–82	20.0%	–322	–252	27.6%
Business free cash flow[1]	–110	–107	3.2%	–349	–328	6.3%

[1] Not defined by International Financial Reporting Standards (IFRS).

After eliminating adjustments, administrative costs amounted to € 65 million in the third quarter of 2019 (Q3 2018: € 76 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 € 14 million in the third quarter of 2019 (Q3 2018: € 9 million). After eliminating adjustments, other operating expenses (net) declined to € 37 million in the third quarter of 2019 (Q3 2018: € 44 million). Moreover, the reversal of an impairment loss for other receivables amounting to € 37 million in the year-earlier quarter had a positive effect on the operating result. This reversal was in connection with the contractual refund claims from the divestment of the Generics business in 2007. After eliminating depreciation and adjustments, EBITDA pre totaled € –98 million in the third quarter of 2019 (Q3 2018: € –82 million). The slight increase in negative business free cash flow to € –110 million (Q3 2018: € –107 million) was largely the outcome of the development of EBITDA pre as well as lower investments.

In the first nine months of 2019, EBITDA pre of Corporate and Other totaled € –322 million (January-September 2018: € –252 million). Business free cash flow amounted to € –349 million in the first nine months of 2019 (January-September 2018: € –328 million).

Report on Expected Developments

In the half-yearly financial report as of June 30, 2019, we specified our forecast for the development of net sales and EBITDA pre for the Merck Group and the individual business sectors in 2019. The sale of the Consumer Health business to Procter & Gamble (P&G) closed on December 1, 2018. The 2018 figures already reflect this divestment. Therefore, the divestment has not been recorded as a portfolio effect in the comparison of the forecast with the figures for 2018. Furthermore, Merck defines organic earnings growth as currency-adjusted and portfolio-adjusted growth. The effects resulting from the first-time application of the new accounting standard for leases (IFRS 16) are reflected in organic earnings growth.

Composition of the Group

On October 7, 2019, Merck announced the successful closing of the acquisition of Versum Materials, Inc., USA, (Versum) for a purchase price of approximately € 5.8 billion. In addition, the acquisition of Intermolecular Inc., USA, was completed on September 20, 2019. The transaction represents an equity value of approximately US$ 62 million. On October 10, the acquisition of FloDesign Sonics, Inc., USA, was announced. It will become part of our Life Science business sector. The effects resulting from the acquisitions will be reported as a portfolio effect and thus have no impact on organic growth rates for the following 12 months. Only the Versum acquisition will have a significant effect on net sales and EBITDA pre.

Foreign exchange developments

In the first nine months of 2019, the euro-U.S. dollar exchange rate was within the range of 1.12 to 1.16 that we had previously expected for the full year 2019, albeit at the lower end of the corridor. By contrast, the development of individual emerging market currencies was not as favorable as assumed in the half-yearly financial report. The positive development of the euro-U.S. dollar exchange rate is overcompensating for the other effects on net sales. Consequently, foreign exchange is expected to have a slightly positive effect of 1% to 2% in comparison with the previous year (previously 0% to 2%). For EBITDA pre, we continue to assume a slightly positive foreign exchange effect of 0% to 2% compared with the previous year. Owing to losses from the realization of currency hedging transactions, the positive effect from net sales will only partially materialize in EBITDA pre. In contrast to our most recent estimate for the full year 2019, we expect a euro–U.S. dollar exchange rate in the range of 1.11 to 1.15. Generally, the exchange rate development depends heavily on current political and macroeconomic factors. Therefore, we essentially continue to expect high exchange rate volatility.

Net sales

Following a solid third quarter that was in line with our expectations, we continue to forecast for the full year 2019 a moderate organic net sales increase of 3% to 5% over the previous year. We still assume that Life Science and Healthcare will be the growth drivers, more than offsetting the organic decline in Performance Materials. In comparison with our forecast made on June 30, 2019, we expect slightly higher positive foreign exchange effects. For fiscal 2019, we expect that the Versum acquisition will have a portfolio effect of around € 270 million on Group sales. Overall, net sales of the Merck Group are expected to be between € 15.7 billion and € 16.3 billion (previously: € 15.3 billion to € 15.9 billion; 2018: € 14.836 billion).

EBITDA pre

We confirm our original expectation of a pronounced organic increase of 10% to 13% in EBITDA pre compared with the previous year and continue to expect a slightly positive foreign exchange effect of 0% to 2% compared with the previous year. We continue to expect the first-time application of the new accounting standard on leases (IFRS 16) to generate a positive earnings contribution of around € 130 million. The portfolio effect of Versum on Group EBITDA pre is forecast at around € 80 million to € 90 million. According to our expectations, Group EBITDA pre for 2019 will be in a corridor between € 4.23 billion and € 4.43 billion (previously between € 4.15 billion and € 4.35 billion; 2018: € 3.80 billion).

Healthcare

For the Healthcare business sector, our forecast for a solid organic net sales increase of 4% to 6% in 2019 in comparison with the previous year remains unchanged. The strong demand for our products in the General Medicine & Endocrinology franchise in growth markets will contribute to this trend, as will our business with products for the treatment of infertility. These positive effects should be able to offset the expected decline in sales of Rebif® as well as continued price pressure in key markets in Europe, Asia-Pacific, as well as the Middle East and Africa. We are specifying our estimate for Mavenclad® and expect sales of around € 300 million (previously up to a mid-triple-digit million amount) in 2019. Mavenclad® will thus significantly contribute to growth. In contrast to our most recent estimate, for 2019 we expect Bavencio® (avelumab) sales to reach around € 100 million (previously: high double-digit million range). This now includes sales following the approval of Bavencio® in combination with axitinib as a first-line treatment in patients with advanced renal carcinoma (RCC) by the U.S. Food and Drug Administration (FDA) on May 15, 2019. Approval was also granted by the European Commission on October 28, 2019 yet this is not expected to have a significant effect on net sales in 2019. Due to the exchange rate developments in recent weeks, we forecast an exchange rate effect of 0% to 2% (previously: –1% to 2%) on net sales of the Healthcare business sector. Owing to these developments, we forecast sales in the range of between € 6.5 billion and € 6.7 billion (previously: € 6.45 billion to € 6.75 billion; 2018: € 6.25 billion).

For 2019, we continue to forecast EBITDA pre of the Healthcare business sector in the range of between € 1.83 billion and € 1.94 billion (2018: € 1.56 billion). We continue to assume strong organic growth of EBITDA pre in the range of 19% to 23% compared with 2018. In the first nine months of 2019, the decline in sales of Rebif® and the resulting negative impact on earnings was more pronounced than we had previously assumed. However, for the full year 2019, we still assume that the expected significant contributions to earnings from our new products, particularly Mavenclad®, will more than offset this negative earnings effect. Our estimation in this respect has not changed in comparison with the last half-yearly financial report. The absence of one-time effects from fiscal 2018 totaling approximately € 180 million should be more than offset by expected milestone payments as well as earnings contributions from the active management of our pipeline assets. Accordingly, with respect to the global strategic alliance with GlaxoSmithKline plc announced on February 5, 2019 to co-develop and co-commercialize bintrafusp alfa, for 2019 we continue to expect a positive effect on earnings of around € 100 million from the upfront cash payment. Lower than expected license payments for Erbitux® will also have a positive effect on earnings. We expect the research and development expenses for the further development of our pipeline to remain at a stable level. This estimate can be explained by prioritization decisions within the quarterly budgeting process and an increasing focus on costs in the course of the year. We continue to expect that our marketing and selling costs will increase slightly, driven primarily by launch activities for Mavenclad®, particularly in the United States. However, we assume that marketing and selling expenses are likely to decline in relation to sales. As regards the currency effect on the EBITDA pre of Healthcare, with the conclusion of the third quarter we are raising the lower end of the range and now forecast an exchange rate effect of between 0% and 2% (previously: – 1% to 2%).

Life Science

For our Life Science business sector, which performed well in the first nine months, we expect to see strong organic sales growth of 8% to 9% in 2019 (previously: 7% to 8%). This reflects a slightly more optimistic forecast for Process Solutions in comparison with the half-yearly report. Owing to the continued highly dynamic market environment in the life science sector, we forecast that all business units will contribute positively to organic growth. In 2019, the Process Solutions business unit is expected to remain the strongest driver of organic growth, followed by Applied Solutions. The Research Solutions business unit should also make a moderate contribution to the positive sales development, albeit to a lesser extent than the other two business units. In December 2018, we sold the flow cytometry business. This will lead to an insignificant negative portfolio effect. Based on the expected foreign exchange development, we continue to forecast a slightly positive exchange rate effect of 1% to 3% (previously 0% to 3%). We expect net sales of € 6.7 billion and € 6.9 billion (previously: € 6.62 billion and € 6.82 billion, 2018: € 6.185 billion).

For 2019, we forecast EBITDA pre of the Life Science business sector in a range between € 2.04 billion and € 2.14 billion (previously: € 2.02 billion to € 2.12 billion; 2018: € 1.84 billion). As we now expect sales to develop more dynamically, we are raising our forecast for the organic growth of EBITDA pre to between 12% and 14% (previously: 11% to 13%). Apart from good sales growth, we forecast a slight operating margin increase of 20–30 base points versus 2018. The realization of synergies from the Sigma-Aldrich acquisition has been completed. Consequently, no further incremental synergies from this acquisition are expected in 2019. We continue to assume that in 2019, organic EBITDA pre growth of the Life Science business sector will be supported by a slightly positive exchange rate effect, which is still expected to range between 0% and 2%.

Performance Materials

For our Performance Materials business sector in 2019, we continue to forecast an organic sales decline of –4% to –7%, now in the lower half of this range. In the first half of 2019, the Display Solutions business unit noticeably benefited in the Liquid Crystals business from individual customer capacity expansion projects in China. In the third quarter of 2019, the expected decline in the Liquid Crystals business continued. Consequently, we expect a noticeable organic decline in the Display Solutions business unit in the fourth quarter 1919 as well. Our business with OLED materials showed very good organic growth in the first nine months of 2019. However, in the third quarter growth slowed slightly. Despite these developments, overall we continue to expect that Display Solutions will see sales and price declines in 2019 as a whole, with no change to the underlying expectations in our half-yearly financial report. For Surface Solutions and Semiconductor Solutions we continue to expect weaker market activity in both sectors in the course of the year. Against this background and in line with our most recent assessment, for these business units we assume a moderate organic decline in sales. Assuming a normal global development, we expect the Performance Materials business sector to return to growth in 2020, driven in particular by Semiconductor Solutions. Owing to the foreign exchange development, for 2019 we forecast a slightly positive foreign exchange effect of 1% to 3% for Performance Materials (previously: 0% to 2%). This is expected to lead to net sales of € 2.25 billion and € 2.4 billion for Performance Materials in 2019 (previously: between € 2.23 billion and € 2.38 billion, 2018: € 2.41 billion).

Deviating from our previous estimate, we forecast EBITDA pre of the Performance Materials business sector for 2019 in the range of between € 695 million and € 755 million (previously € 685 million to € 745 million) (2018: € 786 million). We still assume that the other business units and the initial savings from the Bright Future transformation program will not be able to offset the sales and price declines expected for the full year in the highly profitable Liquid Crystals business. Our estimation in this respect has not changed in comparison with the half-yearly financial report. Consequently, we forecast that organic EBITDA pre of Performance Materials will remain in a range of between –9% and –13%, similar to net sales in the lower half of the range. We now assume a moderately positive exchange rate effect and narrow the range to 3% to 5% (previously 1% to 4%).

Owing to the first-time consolidation of Versum as of October 7, 2019, we expect a portfolio effect of around € 270 million on sales compared with 2018. For EBITDA pre, we expect a contribution of € 80 million to € 90 million from the Versum business.

Corporate and Other

We now project EBITDA pre of Corporate and Other for 2019 of between € –460 million and € –490 million (previously: € –420 million to € –480 million; 2018: € –381 million). Owing to our updated exchange rate assumption, we continue to expect that the currency hedging effects in Corporate and Other will significantly burden EBITDA pre, in contrast to the positive foreign exchange effects expected for the business sectors. In comparison with the estimate in the half-year financial report, we expect a noticeably higher loss from currency hedging. Moreover, Corporate and Other continues to reflect investments in innovation and digitalization initiatives.

MERCK GROUP

Forecast for FY 2019

€ million	Net sales	EBITDA pre	Business free cash flow
Merck Group	**~15,700 to 16,300** • Organic growth of 3% to 5% vs. 2018 • Exchange rate effect of 1% to 2% • Versum included with approximately 270	**~4,230 to 4,430** • Organic growth of 10% to 13% vs. 2018 • Exchange rate effect of 0% to 2% • Versum included with approximately 80 to 90	**~2,600 to 2,850** • Versum included with 75 to 85
Healthcare	**~6,500 to 6,700** • Solid organic growth of 4% to 6% • Exchange rate effect of 0% to 2%	**~1,830 to 1,940** • Organic growth of 19% to 23% • Exchange rate effect of 0% to 2%	**~1,200 to 1,300**
Life Science	**~6,700 to 6,900** • Organic growth of 8% to 9% • Exchange rate effect of 1% to 3%	**~2,040 to 2,140** with an operating margin expansion of 20 to 30 base points • Organic growth of 12% to 14% • Exchange rate effect of 0% to 2%	**~1,350 to 1,450**
Performance Materials	**~2,250 to 2,400** • Organic decline of –4% to –7%* • Exchange rate effect of 1% to 3% • Additionally around 270 due to Versum	**~695 to 755** • Organic decline of –9% to –13%* • Exchange rate effect of 3% to 5% • Additionally around 80 to 90 due to Versum	**~500 to 600** • Versum included with 75 to 85
Corporate and Other	–	**~ –460 to –490**	**~–500 to –580**

EPS pre € 5.30 to € 5.65
Full-year foreign exchange assumptions:
€ 1 = US$ 1.11 to US$ 1.15

*Lower half of the corridor

Supplemental Financial Information

Supplemental Financial Information

Consolidated Income Statement[1]

€ million	Q3 2019	Q3 2018	Jan.–Sept. 2019	Jan.–Sept. 2018
Net sales	**4,054**	**3,749**	**11,771**	**10,949**
Cost of sales	–1,478	–1,344	–4,316	–3,925
Gross profit	**2,576**	**2,405**	**7,455**	**7,023**
Marketing and selling expenses	–1,100	–1,079	–3,348	–3,208
Administration expenses	–267	–283	–820	–815
Research and development costs	–558	–542	–1,638	–1,588
Impairment losses and reversals of impairment losses on financial assets (net)	–1	32	–3	24
Other operating income	142	85	494	370
Other operating expenses	–182	–127	–535	–420
Operating result (EBIT)[2]	**608**	**491**	**1,605**	**1,386**
Finance income	26	20	51	54
Finance costs	–160	–76	–360	–236
Profit before income tax	**473**	**435**	**1,297**	**1,204**
Income tax	–134	–112	–337	–303
Profit after tax from continuing operations	**339**	**323**	**960**	**901**
Profit after tax from discontinued operation	**2**	**22**	**43**	**37**
Profit after tax	**342**	**345**	**1,002**	**938**
thereof: attributable to Merck KGaA shareholders (net income)	343	340	1,002	928
thereof: attributable to non-controlling interests	–1	5	–	10
Earnings per share (in €)				
basic	0.79	0.78	2.31	2.13
– thereof: from continuing operations	0.78	0.74	2.20	2.06
– thereof: from discontinued operation	0.01	0.04	0.10	0.07
diluted	0.79	0.78	2.31	2.13
– thereof: from continuing operations	0.78	0.74	2.20	2.06
– thereof: from discontinued operation	0.01	0.04	0.10	0.07

[1] Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes".
[2] Not defined by International Financial Reporting Standard (IFRS).

Statement of Comprehensive Income

€ million	Q3 2019	Q3 2018	Jan.–Sept. 2019	Jan.–Sept. 2018
Profit after tax	**342**	**345**	**1,002**	**938**
Items of other comprehensive income that will not be reclassified to profit or loss in subsequent periods				
Net defined benefit liability				
Changes in remeasurement	–502	105	–867	214
Tax effect	93	–19	153	–41
Changes recognized in equity	–409	86	–715	173
Equity instruments				
Fair value adjustments	–30	6	–4	33
Tax effect	–	–	–	–
Changes recognized in equity	–30	6	–4	33
	–439	92	–718	206
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	31	7	–4	–19
Reclassification to profit or loss	26	12	77	27
Reclassification to assets	–	–	–	–
Tax effect	–18	–6	–22	–1
Changes recognized in equity	39	14	51	6
Cost of cash flow hedge reserve				
Fair value adjustments	29	7	16	–44
Reclassification to profit or loss	5	–	9	–
Tax effect	–11	–3	–8	15
Changes recognized in equity	24	4	17	–29
Exchange differences on translating foreign operations				
Changes taken directly to equity	643	–3	771	362
Reclassification to profit or loss	–	–	–	–19
Changes recognized in equity	643	–3	771	342
	706	15	839	320
Other comprehensive income	**266**	**107**	**121**	**526**
Comprehensive income	**608**	**452**	**1,123**	**1,464**
thereof: attributable to Merck KGaA shareholders	608	450	1,121	1,458
thereof: attributable to non-controlling interests	–	3	2	5
Comprehensive income	**608**	**452**	**1,123**	**1,464**
thereof: from continuing operations	606	422	1,080	1,427
thereof: from discontinued operation	2	30	43	37

Consolidated Balance Sheet[1]

€ million	Sept. 30, 2019	Dec. 31, 2018
Non-current assets		
Goodwill	14,309	13,764
Intangible assets other than goodwill	6,730	7,237
Property, plant and equipment	5,376	4,811
Other non-current financial assets	641	656
Other non-current receivables	14	17
Other non-current non-financial assets	89	76
Deferred tax assets	1,389	1,091
	28,550	**27,652**
Current assets		
Inventories	3,135	2,764
Trade and other current receivables	3,440	3,226
Other current financial assets	275	29
Other current non-financial assets	1,231	587
Income tax receivables	325	460
Cash and cash equivalents	5,111	2,170
	13,518	**9,236**
Total assets	**42,067**	**36,888**
Total equity		
Equity capital	565	565
Capital reserves	3,814	3,814
Retained earnings	11,314	11,192
Gains/losses recognized in equity	2,466	1,629
Equity attributable to Merck KGaA shareholders	**18,158**	**17,200**
Non-controlling interests	24	33
	18,182	**17,233**
Non-current liabilities		
Provisions for pensions and other post-employment benefits	3,288	2,336
Other non-current provisions	887	780
Non-current financial debt	8,614	6,681
Other non-current financial liabilities	33	33
Other non-current non-financial liabilities	225	19
Deferred tax liabilities	1,183	1,288
	14,230	**11,138**
Current liabilities		
Current provisions	545	600
Current financial debt	3,930	2,215
Other current financial liabilities	630	1,077
Trade and other current payables	1,736	1,766
Refund liabilities	587	472
Income tax liabilities	1,126	1,176
Other current non-financial liabilities	1,100	1,211
	9,655	**8,517**
Total equity and liabilities	**42,067**	**36,888**

[1]Previous year's figures have been adjusted, see "Effects of new accounting standards and other disclosure changes".

Consolidated Cash Flow Statement

€ million	Q3 2019	Q3 2018	Jan.–Sept. 2019	Jan.–Sept. 2018
Profit after tax	**342**	**345**	**1,002**	**938**
Depreciation/amortization/impairment losses/ reversals of impairment losses	464	428	1,391	1,304
Changes in inventories	–57	–61	–316	–228
Changes in trade accounts receivable	–23	–31	–142	–216
Changes in trade accounts payable/refund liabilities	–13	–16	128	28
Changes in provisions	81	69	134	119
Changes in other assets and liabilities	129	6	14	–472
Neutralization of gains/losses on disposals of assets	10	2	–39	–5
Other non-cash income and expenses	–1	–11	–6	11
Net cash flows from operating activities	**931**	**731**	**2,166**	**1,479**
thereof: from discontinued operation	12	–8	–	–43
Payments for investments in intangible assets	–29	–15	–122	–70
Payments from the disposal of intangible assets	8	–	24	7
Payments for investments in property, plant and equipment	–193	–215	–566	–611
Payments from the disposal of property, plant and equipment	–1	9	5	21
Payments for investments in financial assets	–11	–20	–176	–41
Payments for acquisitions less acquired cash and cash equivalents	–78	–	–88	–
Payments from acquisitions	29	–	29	–
Payments from the disposal of other financial assets	72	24	83	63
Payments for the purchase of non-financial assets	–	–	–500	–
Payments from other divestments	–6	–1	–98	–1
Net cash flows from investing activities	**–209**	**–218**	**–1,408**	**–631**
thereof: from discontinued operation	–6	–4	–118	–9
Dividend payment to Merck KGaA shareholders	–	–	–162	–162
Dividend payments to non-controlling interests	–	1	–12	–4
Dividend payments to E. Merck KG	–	–	–516	–593
Payments from new borrowings from E. Merck KG	–	–	406	375
Repayments of financial debt to E. Merck KG	–194	–29	–194	–137
Payments from the issuance of bonds	1,996	–	3,493	–
Repayments of bonds	–800	–	–800	–323
Changes in other current and non-current financial debt	–68	–258	–42	260
Net cash flows from financing activities	**934**	**–287**	**2,175**	**–585**
thereof: from discontinued operation	–	6	–	45
Changes in cash and cash equivalents	**1,656**	**226**	**2,932**	**263**
Changes in cash and cash equivalents due to currency translation	5	–4	9	–7
Cash and cash equivalents at the beginning of the reporting period	3,451	609	2,170	589
Changes in cash and cash equivalents due to reclassification to assets held for sale	–	1	–	–12
Cash and cash equivalents as of September 30	**5,111**	**833**	**5,111**	**833**

Consolidated Statement of Changes in Net Equity

	Equity capital			Retained earnings		
€ million	General partner's equity Merck KGaA	Subscribed capital Merck KGaA	Capital reserves (share premium) Merck KGaA	Retained earnings/net retained profit	Remeasurement of defined benefit plans	Fair value reserve for equity instruments
Balance as of January 1, 2018	**397**	**168**	**3,814**	**9,930**	**–1,358**	**–6**
Profit after tax	–	–	–	928	–	–
Other comprehensive income	–	–	–	–	173	33
Comprehensive income	**–**	**–**	**–**	**928**	**173**	**33**
Dividend payments	–	–	–	–162	–	–
Transactions with no change of control	–	–	–	–	–	–
Changes in scope of consolidation/Other	–	–	–	13	2	–17
Balance as of September 30, 2018	**397**	**168**	**3,814**	**10,710**	**–1,184**	**10**
Balance as of January 1, 2019	**397**	**168**	**3,814**	**12,525**	**–1,340**	**7**
Profit after tax	–	–	–	1,002	–	–
Other comprehensive income	–	–	–	–	–715	–4
Comprehensive income	**–**	**–**	**–**	**1,002**	**–715**	**–4**
Dividend payments	–	–	–	–162	–	–
Transactions with no change of control	–	–	–	–	–	–
Changes in scope of consolidation/Other	–	–	–	1	–	–1
Balance as of September 30, 2019	**397**	**168**	**3,814**	**13,367**	**–2,055**	**2**

Gains/losses recognized in equity						
Fair value reserve for debt instruments	Cash flow hedge reserve	Cost of hedging reserve	Currency translation difference	Equity attributable to shareholders of Merck KGaA	Non-controlling interests	Total equity
–1	**–121**	**–1**	**1,171**	**13,992**	**63**	**14,055**
–	–	–	–	928	10	938
–	6	–29	347	530	–5	526
–	**6**	**–29**	**347**	**1,458**	**5**	**1,464**
–	–	–	–	–162	–4	–166
–	–	–	–	–	–	–
–	–	–	–	–2	–	–2
–1	**–115**	**–31**	**1,518**	**15,287**	**64**	**15,351**
–1	**–128**	**–33**	**1,790**	**17,200**	**33**	**17,233**
–	–	–	–	1,002	–	1,002
–	51	17	769	119	2	121
–	**51**	**17**	**769**	**1,121**	**2**	**1,123**
–	–	–	–	–162	–12	–173
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–1	**–77**	**–16**	**2,560**	**18,158**	**24**	**18,182**

Information by Business Sector

€ million	Healthcare				Life Science			
	Q3 2019	Q3 2018	Jan.–Sept. 2019	Jan.–Sept. 2018	Q3 2019	Q3 2018	Jan.–Sept. 2019	Jan.–Sept. 2018
Net sales[1]	**1,756**	**1,596**	**4,913**	**4,615**	**1,715**	**1,527**	**5,082**	**4,557**
Intersegment sales	–	–	–	–	20	12	49	26
Operating result (EBIT)[2]	**325**	**191**	**798**	**541**	**316**	**277**	**951**	**804**
Depreciation and amortization	178	181	529	545	195	168	585	509
Impairment losses	–	–	28	2	–	4	–	21
Reversals of impairment losses	–	–	–	–	–	–	–	–
EBITDA[2]	**504**	**372**	**1,355**	**1,089**	**511**	**449**	**1,536**	**1,333**
Adjustments[2]	–3	9	6	52	20	11	44	33
EBITDA pre (Segment result)[2]	**501**	**381**	**1,361**	**1,141**	**531**	**460**	**1,580**	**1,367**
EBITDA pre margin (in % of net sales)[2]	28.5%	23.9%	27.7%	24.7%	31.0%	30.1%	31.1%	30.0%
Assets by business sector[3]			7,487	7,568			21,936	20,860
Liabilities by business sector[3]			–3,000	–2,893			–1,412	–1,333
Investments in property, plant and equipment[4]	88	102	252	257	75	72	215	192
Investments in intangible assets[4]	16	4	57	46	6	5	51	9
Net cash flows from operating activities	462	366	1,340	743	557	517	1,257	1,119
Business free cash flow[2]	311	254	878	784	410	411	1,002	1,055

[1] Excluding intersegment sales.
[2] Not defined by International Financial Reporting Standards (IFRS).
[3] Figures for the reporting period ending on September 30, 2019; previous-year figures as of December 31, 2018.
[4] As reported in the consolidated cash flow statement.

€ million	Q3 2019	Q3 2018	Jan.–Sept. 2019	Jan.–Sept. 2018
EBITDA pre of the operating businesses[1]	**1,209**	**1,045**	**3,501**	**3,103**
Corporate and Other	–98	–82	–322	–252
EBITDA pre of the Merck Group[1]	**1,111**	**963**	**3,179**	**2,850**
Depreciation/amortization/impairment losses/reversals of impairment losses	–464	–428	–1,394	–1,297
Adjustments[1]	–39	–45	–180	–167
Operating result (EBIT)[1]	**608**	**491**	**1,605**	**1,386**
Financial result	–135	–56	–309	–182
Profit before income tax	**473**	**435**	**1,297**	**1,204**

[1] Not defined by International Financial Reporting Standards (IFRS).

€ million	Q3 2019	Q3 2018	Jan.–Sept. 2019	Jan.–Sept. 2018
Restructuring expenses	–10	–9	–111	–25
Integration expenses/IT expenses	–28	–23	–63	–65
Gains (+)/losses (–) on the divestment of businesses	4	–4	4	–43
Acquisition-related adjustments	–	–1	–	–2
Other adjustments	–4	–8	–10	–33
Adjustments before impairment losses/reversals of impairment losses[1]	**–39**	**–45**	**–180**	**–167**
Impairment losses	–8	–5	–8	–22
Reversals of impairment losses	–	–	–	–
Adjustments (total)[1]	**–47**	**–49**	**–188**	**–189**

[1] Not defined by International Financial Reporting Standards (IFRS).

Performance Materials				Corporate and Other				Group			
Q3 2019	Q3 2018	**Jan.–Sept. 2019**	Jan.–Sept. 2018	**Q3 2019**	Q3 2018	**Jan.–Sept. 2019**	Jan.–Sept. 2018	**Q3 2019**	Q3 2018	**Jan.–Sept. 2019**	Jan.–Sept. 2018
583	**626**	**1,776**	**1,776**	**–**	**–**	**–**	**–**	**4,054**	**3,749**	**11,771**	**10,949**
–	–	–	–	–20	–12	–49	–26	–	–	–	–
98	**142**	**293**	**409**	**–131**	**–119**	**–437**	**–369**	**608**	**491**	**1,605**	**1,386**
63	60	187	176	20	14	57	43	456	423	1,357	1,273
8	–	8	1	–	–	–	–	8	5	37	24
–	–	–	–	–	–	–	–	–	–	–	–
169	**202**	**488**	**586**	**–111**	**–105**	**–380**	**–326**	**1,072**	**919**	**2,999**	**2,683**
8	1	73	9	13	23	58	73	39	45	180	167
177	**203**	**560**	**595**	**–98**	**–82**	**–322**	**–252**	**1,111**	**963**	**3,179**	**2,850**
30.5%	32.5%	31.6%	33.5%	–	–	–	–	27.4%	25.7%	27.0%	26.0%
		4,119	4,046			8,525	4,414			42,067	36,888
		–549	–489			–18,924	–14,940			–23,885	–19,655
23	30	64	81	7	12	36	81	193	215	566	611
4	1	7	6	3	4	7	9	29	15	122	70
184	213	574	568	–273	–365	–1,005	–950	931	731	2,166	1,479
121	152	446	432	–110	–107	–349	–328	731	711	1,977	1,943

Restructuring expenses amounting to € 111 million (January-September 2018: € 25 million) resulted primarily in connection with the Bright Future transformation program of the Performance Materials business sector (€ 56 million) as well as with the transfer of Shared Service functions in Finance from Darmstadt to Wroclaw, Poland, and Manila, Philippines (€ 28 million). The integration and IT expenses of the current fiscal year amounting to € 63 million (January-September 2018: € 65 million) resulted mainly from investments in ERP systems.

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

€ million	Jan.–Sept. 2019							
Net sales by nature of the products	Healthcare		Life Science		Performance Materials		**Group**	
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%**

€ million	Jan.–Sept. 2018							
Net sales by nature of the products	Healthcare		Life Science		Performance Materials		**Group**	
Goods	4,492	97%	4,016	88%	1,775	100%	10,282	94%
Equipment/hardware	3	–	239	5%	–	–	242	2%
Services	66	2%	298	7%	1	–	365	3%
License income	–	–	4	–	–	–	4	–
Commission income	10	–	1	–	–	–	11	–
Income from co-commercialization agreements	44	1%	–	–	–	–	44	1%
Total	**4,615**	**100%**	**4,557**	**100%**	**1,776**	**100%**	**10,949**	**100%**
Net sales by region (customer location)								
Europe	1,637	35%	1,575	35%	167	9%	3,379	31%
North America	1,076	23%	1,585	35%	162	9%	2,822	26%
Asia-Pacific (APAC)	1,104	24%	1,138	25%	1,416	80%	3,658	33%
Latin America	486	11%	196	4%	26	2%	708	6%
Middle East and Africa (MEA)	312	7%	64	1%	6	–	382	4%
Total	**4,615**	**100%**	**4,557**	**100%**	**1,776**	**100%**	**10,949**	**100%**

HEALTHCARE

€ million	Jan.–Sept. 2019	Share	Jan.–Sept. 2018	Share
Oncology	**746**	**15%**	**707**	**15%**
thereof: Erbitux®	633	13%	615	13%
thereof: Bavencio®	74	2%	48	1%
Neurology & Immunology	**1,141**	**23%**	**1,152**	**25%**
thereof: Rebif®	947	19%	1,094	24%
thereof: Mavenclad®	194	4%	58	1%
Fertility	**934**	**19%**	**864**	**19%**
thereof: Gonal-f®	565	11%	532	12%
General Medicine & Endocrinology	**1,882**	**39%**	**1,688**	**37%**
thereof: Glucophage®	653	13%	517	11%
thereof: Concor®	384	8%	335	7%
thereof: Euthyrox®	297	6%	265	6%
thereof: Saizen®	173	4%	172	4%
Other	**209**	**4%**	**204**	**4%**
Total	**4,913**	**100%**	**4,615**	**100%**

LIFE SCIENCE[1]

€ million	Jan.–Sept. 2019	Share	Jan.–Sept. 2018	Share
Process Solutions	2,200	43%	1,851	41%
Research Solutions	1,629	32%	1,525	33%
Applied Solutions	1,252	25%	1,181	26%
Total	**5,082**	**100%**	**4,557**	**100%**

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

PERFORMANCE MATERIALS

€ million	Jan.–Sept. 2019	Share	Jan.–Sept. 2018	Share
Display Solutions	972	55%	971	55%
Semiconductor Solutions	445	25%	439	25%
Surface Solutions	358	20%	365	20%
Other	1	–	1	–
Total	**1,776**	**100%**	**1,776**	**100%**

Significant events during the reporting period

AGREEMENT WITH GLAXOSMITHKLINE PLC., UNITED KINGDOM, TO CO-DEVELOP AND CO-COMMERCIALIZE ACTIVE INGREDIENTS IN IMMUNO-ONCOLOGY

On February 5, 2019, Merck signed an agreement with a subsidiary of GlaxoSmithKline plc, United Kingdom, (GSK) to co-develop and co-commercialize the immuno-oncology drug candidate bintrafusp alfa (also known as M7824). This bifunctional fusion protein is currently in clinical development and is being investigated in multiple forms of cancer. This includes a Phase II trial to investigate bintrafusp alfa as a first-line treatment in patients with PD-L1 expressing advanced non-small cell lung cancer (NSCLC).

After fulfillment of the agreed closing conditions, Merck received an upfront payment of € 300 million. Merck is recognizing this payment as income in accordance with the fulfillment of contractual performance commitments. Merck expects that in 2019, around € 100 million of the upfront payment will be recorded under other operating income.

Depending on clinical data, Merck is eligible for potential development milestone payments of up to € 500 million. Moreover, Merck will also be eligible for further payments of up to € 2.9 billion upon successfully achieving future approval and commercial milestones.

The two companies will jointly conduct development and commercialization. In the event of regulatory approval, net sales will be realized by Merck in the United States and by GSK in all other countries whereas net profits from sales and defined expense components will be shared equally by the alliance partners.

RESTRUCTURING OF THE IMMUNO-ONCOLOGY COLLABORATION WITH F-STAR DELTA LTD., UNITED KINGDOM

In June 2017, Merck announced a strategic collaboration with F-star Delta Ltd, Cambridge, United Kingdom, (F-star) for the development and commercialization of bispecific immuno-oncology antibodies. Due to a reprioritization of resources and programs, in 2019 Merck decided to no longer pursue the development of the bispecific antibody FS118 as part of the existing license and collaboration agreement with F-star and consequently restructured the collaboration. Based on the agreement, all rights to FS118 revert to F-star. The option to acquire F-star Delta Ltd. was rescinded. In the course of the restructuring, Merck in-licensed a novel bispecific antibody and additionally has an option to in-license a further bispecific antibody from the F-star antibody platform. Both bispecific antibodies have already been studied within the scope of the preceding collaboration.

As a result of these changes, in the first quarter of 2019 an impairment loss of € 27 million on an intangible asset was recorded as part of other operating expenses. Furthermore, the fair value of the existing option to acquire F-star Delta Ltd. was reduced to zero and the option was derecognized; the corresponding expense of € 45 million is included in finance costs.

ACQUISITION OF INTERMOLECULAR, INC., USA

On September 20, 2019, Merck completed the acquisition of Intermolecular Inc., USA, (Intermolecular) for US$ 1.20 per share in cash (equity value of around US$ 62 million). The closing follows the satisfaction of regulatory clearances and other customary closing conditions.

Intermolecular possesses application specific materials expertise and accelerated learning and experimentation platforms with powerful analytics infrastructure that perfectly complement the business and technology portfolio of Merck’s semiconductor business unit of the Performance Materials business sector.

Intermolecular reported annual sales of US$ 34 million in fiscal 2018 and has around 90 employees.

PURCHASE PRICE ADJUSTMENT FROM THE DIVESTMENT OF THE CONSUMER HEALTH BUSINESS

On December 1, 2018, Merck completed the divestment of its global Consumer Health business to The Procter & Gamble Company, USA, (P&G). The selling price was € 3.4 billion in cash before defined purchase price adjustments on the closing date for transferred operating assets, cash on hand and borrowed capital, among other things. The final determination of the purchase price adjustments took place in the first half of 2019 and led to a cash inflow primarily in the third quarter of 2019. In this context, Merck received a further € 52 million. The corresponding income and further expenses in connection with the divestment have been reported under profit after tax of discontinued operation. The payments from discontinued operation amounting to € 118 million reported under net cash flows from investing activities in the consolidated cash flow statement were mainly attributable to tax payments in connection with the divestment of the Consumer Health business as well as to the cash inflow for the purchase price adjustment.

RECEIPT OF MILESTONE PAYMENTS

In the second quarter of 2019, Merck received a milestone payment of € 75 million from BioMarin Pharmaceutical Inc., USA (2018: € 50 million). The payment represents subsequent compensation for the return of the development and commercialization rights to Palynziq™ (formerly: Peg-Pal or Pegvaliase), which became due in the reporting period owing to the regulatory approval of the product in Europe.

Likewise in the second quarter of 2019, Merck received a milestone payment from Pfizer Inc., USA, amounting to € 36 million (US$ 40 million) for the regulatory approval of Bavencio® (avelumab) in combination with axitinib as a first-line therapy in patients with advanced renal cell carcinoma (RCC) by the U.S. Food and Drug Administration (FDA). Both milestone payments were recorded under other operating income and allocated to the Healthcare business sector.

Subsequent events

ACQUISITION OF VERSUM MATERIALS, INC., USA

On October 7, 2019, Merck announced the successful closing of the acquisition of Versum Materials, Inc., USA, (Versum) for approximately € 5.8 billion. The transaction closing follows the recent approval from the Chinese antitrust authority, which represented the final regulatory clearance for the completion of the acquisition.

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 business combination is expected to make Merck a leading electronic materials player focused on the semiconductor and display industries. The legacy Versum business will be integrated into the Semiconductor Solutions business unit within the Performance Materials business sector. For the period until the end of 2019, Merck expects the legacy Versum business to contribute around € 270 million to Group net sales.

On June 18, 2019, Merck had placed a euro hybrid bond amounting to € 1.5 billion to finance the planned acquisition as well as bonds amounting to € 2 billion on July 1, 2019. The hybrid bond comprises two tranches, both of which have a maturity of 60 years with an early redemption option for Merck after 5.5 and 10 years, respectively. Rating agencies (Moody's, Scope and Standard & Poor's) gave equity credit treatment to half the issuance. The bond is recognized in full as a financial liability in the balance sheet. Derivatives were used to hedge the foreign currency risk stemming from the U.S. dollar purchase price payment obligation.

ACQUISITION OF FLODESIGN SONICS, INC., USA

The completion of the acquisition of FloDesign Sonics, Inc., USA, was announced on October 10, 2019. The company has developed an industrial acoustic cell processing platform for the industrialization of cell and gene therapy manufacturing.

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 of the Merck Group.

Effects of new accounting standards and other disclosure changes

CHANGE IN THE ACCOUNTING AND MEASUREMENT POLICIES RESULTING FROM IFRS 16

Effective January 1, 2019, Merck applied the accounting standard IFRS 16 “Leases” for the first time. IFRS 16 “Leases” replaces IAS 17 “Leases” and the corresponding interpretations. Merck applied the modified retrospective method to implement IFRS 16 and recognized the cumulative transition effects as at January 1, 2019. Previous-year figures have not been restated.

IFRS 16 introduces a uniform lessee accounting model that requires lessees to recognize all leases in the consolidated balance sheet. This model mandates that right-of-use assets be recognized for identified assets and lease liabilities recognized for entered payment obligations. The new lease accounting regulations affect Merck as a lessee, in particular regarding leased real estate and vehicles. The lessor accounting regulations remain largely unchanged; this business has no material relevance for Merck. Furthermore, Merck’s consolidated financial statements will not be affected by the new sale-and-lease-back regulations introduced per IFRS 16.

In accordance with IFRS 16, lease liabilities to be recognized for leases with Merck as a lessee are to be measured at the present value of the future lease payments. The weighted average interest rate used to discount the leases in place on January 1, 2019 was 2.8%. At the present value of the outstanding lease payments, adjusted for directly attributable costs, the right to use the leased asset was also capitalized as an asset. Advance payments and liabilities relating to earlier periods were also taken into account. When determining the remaining lease term at first-time application, the probability of exercising purchase, extension or termination options was estimated on the basis of current knowledge. These estimates were discretionary.

In accordance with IFRS 16, right-of-use assets are recognized within property, plant and equipment under the same line item that would have been used if the underlying asset had been purchased. In contrast to the previous approach of fully recognizing expenses from operating leases in the respective functional costs, interest expenses from the unwinding of the discount on lease liabilities will in future be recognized in the financial result.

The effects on the consolidated balance sheet were as follows:

€ million	Jan. 1, 2019
Property, plant and equipment	
Land, land rights and buildings, including buildings on third-party land	384
Plant and machinery	17
Other facilities, operating and office equipment	67
Right-of-use assets	**467**
Other current non-financial assets	**–2**
Non-current financial debt	
Lease liabilities	349
Current financial debt	
Lease liabilities	116

Based on the obligations from operating leases (IAS 17) as of December 31, 2018, the following reconciliation was made to the opening balance sheet value of the lease liabilities as of January 1, 2019:

€ million	
Operating lease obligation as of December 31, 2018 (IAS 17)[1]	**561**
Practical expedient for leases involving low-value assets	–54
Minimum lease payments (nominal value) of finance lease liabilities as of December 31, 2018	4
Variable lease payments depending upon an index or a rate	19
Lease payments owing to the exercise of extension options assessed as being reasonably certain as of January 1, 2019	1
Lease payments owing to the exercise of termination options assessed as not being reasonably certain as of January 1, 2019	27
Service contracts to which IFRS 16 does not apply	–33
Undiscounted lease liabilities as of January 1, 2019 (IFRS 16)	**525**
Discounting	–56
Lease liabilities as of January 1, 2019	**469**
Present value of finance lease liabilities as of December 31, 2018	–4
Additional lease liabilities due to the first-time application of IFRS 16 as of January 1, 2019	**465**

[1] Previous year's figures have been adjusted.

Merck made use of the following practical expedients of IFRS 16:

- Right-of-use assets, including the corresponding liabilities, from leases of low-value assets will also not be recognized in the consolidated balance sheet in the future;
- Leases of intangible assets within the scope of IAS 38 are not recognized in accordance with IFRS 16;
- Non-lease components are not separated from lease components with respect to buildings, including buildings on third-party land;
- Leases that were previously subject to IAS 17 and the corresponding interpretations will continue to be treated as leases under IFRS 16 in the future;
- At first-time application, no impairment tests for right-of-use assets were carried out – instead, Merck charged provisions for onerous contracts against the respective right-of-use assets;
- At first-time application, directly attributable costs incurred at contract inception were not taken into consideration;
- In the case of existing extension or termination options, the term of the lease was determined retrospectively;
- The carrying amounts of right-of-use assets and lease liabilities of leases classified as finance leases in accordance with IAS 17 were retained on the date of first-time application.

Merck will not apply the practical expedient regarding leases with a term of less than 12 months. Further information on the effects of the first-time application of IFRS 16 can be found in the Consolidated Financial Statements as of December 31, 2018.

OTHER DISCLOSURE CHANGES

To increase comparability and transparency, the disclosure of functional costs has been adapted in the consolidated income statement and in the consolidated balance sheet. The changes in the consolidated income statement relate to the functional disclosure of adjustments that were previously included under other operating income and other operating expenses. Now the adjustments are disclosed directly in the respective functional costs in order to directly show the relationship to functional costs. In the Group balance sheet, other assets and other liabilities have been separated into financial and non-financial assets and liabilities, depending on their specific nature. Furthermore, trade accounts receivable and other receivables have been combined. Within Group equity, the reserves are separated into capital reserves and retained earnings.

The modified year-earlier comparison figures in the consolidated income statement and in the consolidated balance sheet can be found in the tables under “Effects of new accounting standards and other disclosure changes on the consolidated income statement and the consolidated balance sheet”.

EFFECTS OF NEW ACCOUNTING STANDARDS AND OTHER DISCLOSURE CHANGES ON THE CONSOLIDATED INCOME STATEMENT AND THE CONSOLIDATED BALANCE SHEET

BALANCE SHEET

€ million	Dec. 31, 2018 (as reported)	Reclassification Receivables/liabilities	Reclassification Derivatives
Non-current assets			
Goodwill	13,764	–	–
Intangible assets other than goodwill	7,237	–	–
Property, plant and equipment	4,811	–	–
Other non-current financial assets	610	–	46
Other non-current receivables		17	–
Other non-current non-financial assets		–	–
Other non-current assets	138	–17	–46
Deferred tax assets	1,091	–	–
	27,652	**–**	**–**
Current assets			
Inventories	2,764	–	–
Trade accounts receivable	2,931	–2,931	–
Trade and other current receivables		3,226	–
Other current financial assets	24	–	4
Other current non-financial assets		–	–
Other current assets	886	–295	–4
Income tax receivables	460	–	–
Cash and cash equivalents	2,170	–	–
Assets held for sale	–	–	–
	9,236	**–**	**–**
Total assets	**36,888**	**–**	**–**
Equity			
Equity capital	565	–	–
Reserves	15,006	–	–
Capital reserves		–	–
Retained earnings		–	–
Gains/losses recognized in equity	1,629	–	–
Equity attributable to Merck KGaA shareholders	**17,200**	**–**	**–**
Non-controlling interests	33	–	–
	17,233	**–**	**–**
Non-current liabilities			
Provisions for pensions and other post-employment benefits	2,336	–	–
Other non-current provisions	780	–	–
Non-current financial debt	6,681	–	–
Other non-current financial liabilities		13	20
Other non-current non-financial liabilities		–	–
Other non-current liabilities	52	–13	–20
Deferred tax liabilities	1,288	–	–
	11,138	**–**	**–**
Current liabilities			
Current provisions	600	–	–
Current financial liabilities	2,215	–	–
Other current financial debt		1,019	58
Trade and other current payables	1,766	–	–
Refund liabilities	472	–	–
Income tax liabilities	1,176	–	–
Other current non-financial liabilities		–	–
Other current liabilities	2,288	–1,019	–58
Liabilities included in disposal groups classified as held for sale	–	–	–
	8,517	**–**	**–**
Total equity and liabilities	**36,888**	**–**	**–**

Reclassification Non-financial assets/ liabilities	Reclassification Equity/reserves	**Dec. 31, 2018** (after reclassifications)	Application of IFRS 16	**Jan. 1, 2019** (after adjustment)
–	–	13,764	–	13,764
–	–	7,237	–	7,237
–	–	4,811	467	5,278
–	–	656	–	656
–	–	17	–	17
76	–	76	–	76
−76	–			
–	–	1,091	–	1,091
–	**–**	**27,652**	**467**	**28,119**
–	–	2,764	–	2,764
–	–			
–	–	3,226	–	3,226
–	–	29	–	29
587	–	587	−2	585
−587	–			
–	–	460	–	460
–	–	2,170	–	2,170
–	–	–	–	–
–	**–**	**9,236**	**−2**	**9,234**
–	**–**	**36,888**	**465**	**37,353**
–	–	565	–	565
–	−15,006			
–	3,814	3,814	–	3,814
–	11,192	11,192	–	11,192
–	–	1,629	–	1,629
–	**–**	**17,200**	**–**	**17,200**
–	–	33	–	33
–	**–**	**17,233**	**–**	**17,233**
–	–	2,336	–	2,336
–	–	780	–	780
–	–	6,681	349	7,030
–	–	33	–	33
19	–	19	–	19
−19	–			
–	–	1,288	–	1,288
–	**–**	**11,138**	**349**	**11,487**
–	–	600	–	600
–	–	2,215	116	2,331
–	–	1,077	–	1,077
–	–	1,766	–	1,766
–	–	472	–	472
–	–	1,176	–	1,176
1,211	–	1,211	–	1,211
−1,211	–			
–	–	–	–	–
–	**–**	**8,517**	**116**	**8,633**
–	**–**	**36,888**	**465**	**37,353**

CONSOLIDATED INCOME STATEMENT

€ million	Jan.–Sept. 2018 as reported	Jan.–Sept. 2018 Disclosure adjustment	Jan.–Sept. 2018 restated
Net sales	**10,949**	**–**	**10,949**
Cost of sales	–3,925	–	–3,925
Gross profit	**7,023**	**–**	**7,023**
Marketing and selling expenses	–3,205	–4	–3,208
Administration expenses	–697	–119	–815
Research and development costs	–1,588	–	–1,588
Impairment losses and reversals of impairment losses on financial assets (net)	24	–	24
Other operating income	370	–	370
Other operating expenses	–543	122	–420
Operating result (EBIT)[1]	**1,386**	**–**	**1,386**

[1] Not defined by International Financial Reporting Standards (IFRS).

HEALTHCARE RESULTS OF OPERATIONS

€ million	Jan.–Sept. 2018 as reported	Jan.–Sept. 2018 Disclosure adjustment	Jan.–Sept. 2018 restated
Net sales	**4,615**	**–**	**4,615**
Cost of sales	–1,040	–	–1,040
Gross profit	**3,575**	**–**	**3,575**
Marketing and selling expenses	–1,714	–1	–1,715
Administration expenses	–225	–16	–241
Research and development costs	–1,195	–	–1,194
Remaining operating expenses and income	100	17	117
Operating result (EBIT)[1]	**541**	**–**	**541**

[1] Not defined by International Financial Reporting Standards (IFRS).

LIFE SCIENCE RESULTS OF OPERATIONS

€ million	Jan.–Sept. 2018 as reported	Jan.–Sept. 2018 Disclosure adjustment	Jan.–Sept. 2018 restated
Net sales	**4,557**	**–**	**4,557**
Cost of sales	–1,984	–	–1,984
Gross profit	**2,574**	**–**	**2,574**
Marketing and selling expenses	–1,302	–2	–1,304
Administration expenses	–199	–29	–228
Research and development costs	–179	–	–180
Remaining operating expenses and income	–90	32	–58
Operating result (EBIT)[1]	**804**	**–**	**804**

[1] Not defined by International Financial Reporting Standards (IFRS).

PERFORMANCE MATERIALS RESULTS OF OPERATIONS

€ million	Jan.–Sept. 2018 as reported	Jan.–Sept. 2018 Disclosure adjustment	Jan.–Sept. 2018 restated
Net sales	**1,776**	**–**	**1,776**
Cost of sales	–897	–	–897
Gross profit	**879**	**–**	**879**
Marketing and selling expenses	–183	–	–183
Administration expenses	–64	–9	–72
Research and development costs	–183	–	–183
Remaining operating expenses and income	–40	9	–32
Operating result (EBIT)[1]	**409**	**–**	**409**

[1] Not defined by International Financial Reporting Standards (IFRS).

CONSOLIDATED INCOME STATEMENT

	2018		
€ million	as reported	Disclosure adjustment	restated
Net sales	**14,836**	**–**	**14,836**
Cost of sales	–5,382	–	–5,382
Gross profit	**9,454**	**–**	**9,454**
Marketing and selling expenses	–4,384	–13	–4,396
Administration expenses	–993	–190	–1,183
Research and development costs	–2,225	–2	–2,227
Impairment losses and reversals of impairment losses on financial assets (net)	27	–	27
Other operating income	627	–	627
Other operating expenses	–780	205	–575
Operating result (EBIT)[1]	**1,727**	**–**	**1,727**

[1] Not defined by International Financial Reporting Standards (IFRS).

HEALTHCARE RESULTS OF OPERATIONS

	2018		
€ million	as reported	Disclosure adjustment	restated
Net sales	**6,246**	**–**	**6,246**
Cost of sales	–1,425	–	–1,425
Gross profit	**4,820**	**–**	**4,820**
Marketing and selling expenses	–2,339	–10	–2,349
Administration expenses	–301	–28	–329
Research and development costs	–1,686	–1	–1,687
Remaining operating expenses and income	237	39	276
Operating result (EBIT)[1]	**731**	**–**	**731**

[1] Not defined by International Financial Reporting Standards (IFRS).

LIFE SCIENCE RESULTS OF OPERATIONS

	2018		
€ million	as reported	Disclosure adjustment	restated
Net sales	**6,185**	**–**	**6,185**
Cost of sales	–2,723	–	–2,723
Gross profit	**3,463**	**–**	**3,463**
Marketing and selling expenses	–1,775	–2	–1,777
Administration expenses	–282	–52	–335
Research and development costs	–249	–1	–251
Remaining operating expenses and income	–121	56	–65
Operating result (EBIT)[1]	**1,036**	**–**	**1,036**

[1] Not defined by International Financial Reporting Standards (IFRS).

PERFORMANCE MATERIALS RESULTS OF OPERATIONS

	2018		
€ million	as reported	Disclosure adjustment	restated
Net sales	**2,406**	**–**	**2,406**
Cost of sales	–1,231	–	–1,231
Gross profit	**1,175**	**–**	**1,175**
Marketing and selling expenses	–255	–	–255
Administration expenses	–90	–17	–107
Research and development costs	–242	–	–242
Remaining operating expenses and income	–81	16	–64
Operating result (EBIT)[1]	**508**	**–**	**508**

[1] Not defined by International Financial Reporting Standards (IFRS).

Darmstadt, November 8, 2019

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FINANCIAL CALENDAR
for 2020

March
3/5/2020
Annual Press Conference

August
8/6/2020
Half-yearly Financial Report

April
4/24/2020
Annual General Meeting

November
11/12/2020
Quarterly Statement Q3

May
5/14/2020
Quarterly Statement Q1

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