1ST 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

MERCK GROUP

Key figures[1]

€ million	Q1 2019	Q1 2018	Change
Net sales	3,746	3,486	7.5%
Operating result (EBIT)[2]	379	502	–24.6%
Margin (% of net sales)[2]	10.1%	14.4%	
EBITDA[2]	853	924	–7.7%
Margin (% of net sales)[2]	22.8%	26.5%	
EBITDA pre[2]	929	967	–4.0%
Margin (% of net sales)[2]	24.8%	27.7%	
Profit after tax	190	342	–44.6%
Earnings per share (€)	0.43	0.78	–44.9%
Earnings per share pre (€)[2]	1.13	1.33	–15.4%
Business free cash flow[2]	545	718	–24.1%

[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).

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Net sales by quarter[1]

€ million

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

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EBITDA pre[1] **by quarter**[2]

€ million

[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".

Developments within the Group and R&D

Summary of the first 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 52,140 employees worldwide on March 31, 2019, compared with 53,358 employees on March 31, 2018.

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

Healthcare

BIOPHARMA

Collaborations

- On January 23, we signed a strategic collaboration agreement with Tencent, a leading provider of Internet value-added services. The collaboration will primarily focus on increasing public disease awareness and providing more accessible healthcare services via digital platforms in China.
- On February 5, together with GlaxoSmithKline (GSK) we announced a global strategic alliance to jointly develop and commercialize bintrafusp alfa. This investigational bifunctional fusion protein immunotherapy is currently in clinical development, including potential registration studies, for multiple difficult-to-treat cancers. Among other things, this includes a Phase II trial to investigate bintrafusp alfa compared with pembrolizumab as a first-line treatment in patients with PD-L1 expressing advanced non-small cell lung cancer. Bintrafusp alfa has the potential to offer new ways to fight difficult-to-treat cancers beyond the established PD-1/PD-L1 class. In addition to use as a single agent, bintrafusp alfa is also being considered for use in combination with other assets from the pipelines of both companies. According to the agreement with GSK, Merck received entitlement to an upfront payment of € 300 million and is eligible for potential development milestone payments of up to € 500 million triggered by data from the bintrafusp alfa lung cancer program. Merck will also be eligible for further payments upon successfully achieving future approval and commercial milestones of up to € 2.9 billion. The total potential deal value is up to

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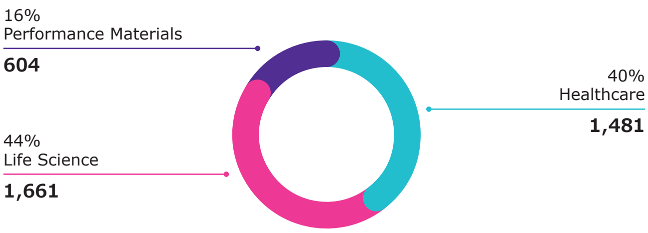
Net sales by business sector – Q1 2019
€ million/in % of net sales



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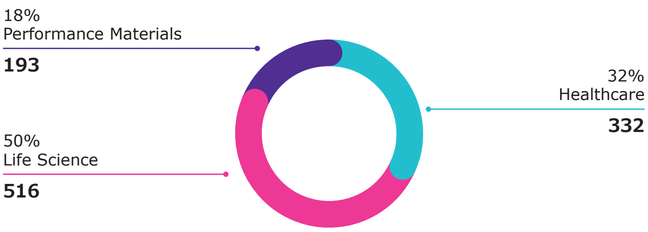
EBITDA pre[1] by business sector[2] – Q1 2019
€ million/in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Not presented: Decline in Group EBITDA pre by € –112 million due to Corporate and Other.

€ 3.7 billion. 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.

- On March 19, we entered a collaboration agreement with Iktos, a French start-up company specialized in the development of artificial intelligence solutions applied to chemical research, for the use of its generative modelling artificial intelligence technology in order to facilitate the rapid and cost-effective discovery and design of promising new compounds.

Oncology and Immuno-Oncology

- On February 11, we and our alliance partner Pfizer Inc. issued a statement that the U.S. Food and Drug Administration (FDA) accepted for Priority Review the supplemental Biologics License Application for Bavencio® (avelumab) in combination with Inlyta® (axitinib) for patients with advanced renal cell carcinoma (RCC). The application has been given a target action date in June 2019.
- On March 8, we and our alliance partner Pfizer Inc. announced that the European Medicines Agency validated for review the Type II variation application for Bavencio® in combination with Inlyta® for the treatment of patients with advanced RCC. These applications are based on results from the pivotal Phase III JAVELIN Renal 101 trial, which were published in the New England Journal of Medicine on February 16. The combination of Bavencio® and Inlyta® significantly extended median progression-free survival by more than five months compared with Sutent® (sunitinib) as a first-line treatment for patients with advanced RCC.
- A supplemental application for the combination in unresectable or metastatic RCC was also been submitted in Japan.
- On March 19, we and our alliance partner Pfizer Inc. gave notice of the discontinuation of the ongoing Phase III JAVELIN Ovarian PARP 100 study evaluating the efficacy and safety of avelumab in combination with chemotherapy followed by maintenance therapy of avelumab in combination with talazoparib, a poly (ADP-ribose) polymerase (PARP) inhibitor, versus an active comparator in treatment-naïve patients with locally advanced or metastatic ovarian cancer (Stage III or Stage IV). The decision was based on several emerging factors since the trial's initiation, including the previously announced interim results from JAVELIN Ovarian 100 as well as the rapidly changing treatment landscape. The decision to discontinue the JAVELIN Ovarian PARP 100 trial was not made for safety reasons.

Neurology and Immunology

- On March 29, we announced that the FDA approved Mavenclad® (cladribine) tablets for the treatment of adults with relapsing-remitting disease (RRMS) and active secondary progressive disease (SPMS). Mavenclad® is the first and only FDA-approved treatment for RRMS and active SPMS that provides two years of proven efficacy with a maximum of 20 days of oral treatment, during a two-year period. The FDA approval is based on a clinical program in which 1,976 patients received therapy for a total of 9,509 patient years, of which the mean time on study including follow-up was approximately 4.8 years and 24% of the follow-up was for eight years. Mavenclad® has demonstrated clinical efficacy across key measures of disease activity, such as annualized relapse rate, disability progression, and magnetic resonance imaging activity.
- The U.S. approval of Mavenclad® follows its approval in over 50 countries, including those of the European Union in August 2017.

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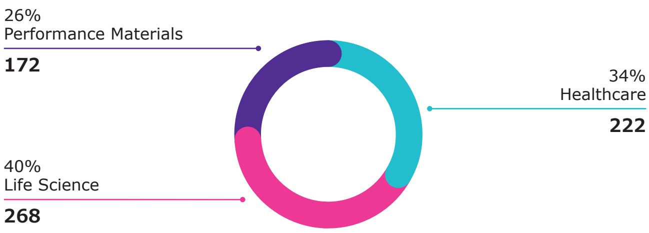
Business free cash flow[1] by business sector[2] – Q1 2019
€ million / in %



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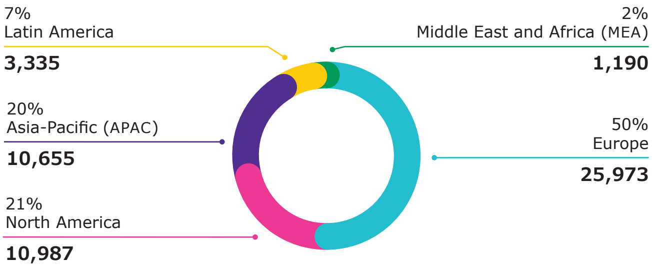
Employees by region as of March 31, 2019
Number / in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Not presented: Decline in Group business free cash flow by € –118 million due to Corporate and Other.

General Medicine and Endocrinology

- Our new formulation of Euthyrox® (levothyroxine) for the treatment of hypothyroidism obtained regulatory approval in the first quarter in a further seven countries.
- Glucophage®, containing the active ingredient metformin, is now approved in 48 countries for prediabetes when intensive lifestyle changes have failed.
- In the first quarter, we enrolled 1,267 new Saizen® patients on Easypod® connect, bringing the total number of patients to 17,781. Saizen® (somatropin) is our main endocrinology product and is indicated for the treatment of growth hormone deficiency in children and adults. Saizen® is delivered with the Easypod® electromechanical injection device, which wirelessly transfers data such as injection times, dates and doses to the web-based software system Easypod® connect, making it easier for healthcare practitioners and patients to ensure adherence and reach treatment goals.

Fertility

- The successful global launches of our Pergoveris® Pen continued in early 2019 with Israel, the 14th country to get access to this convenient and ready-to-use fertility combination treatment option for women with severe follicle stimulating hormone and luteinizing hormone deficiency. Additional launches in other countries are planned.
- During the first quarter, we also successfully launched the Fertility Technologies products Geri®, Gavi®, Gems®, and Gidget® in India during the annual conference of the Indian Society for Assisted Reproduction in Mumbai from March 1 to 3. Following the launch, Merck inaugurated a demonstration laboratory in Mumbai that will serve as a showcase and training facility.

Life Science

- In the first quarter of 2019, we continued to focus on meeting customer needs by launching more than 5,000 products across the Research Solutions, Process Solutions and Applied Solutions business units. The launch highlights include:
  - Trehalose Emprove® Expert is broadly used as a stabilizer in lyophilization (freeze drying) of biomolecules. It addresses the challenge of protein aggregation in biomolecule formulations and is used as an important excipient in customers' final formulations and for protein stabilization in downstream processing.
  - Recombinant Cas9 and eCas9 GFP fusion proteins offer all the advantages of ribonucleoprotein-based (RNP) genome editing. Through the addition of a fluorescent protein and an optimized nuclear localization signal-fused (NLS) configuration, these products now offer increased utility as well as higher activity and specificity.
  - A new formulation of Modified Tryptic Soy Broth (mTSB), an enrichment broth for the detection of Salmonella, E. coli O157, non-O157 STEC from food and animal feed. The new formulation addresses new regulations for the U.S. market as well as for Latin America, South Korea and Taiwan, which follow the same regulations.
- In February, we announced the winners of our Advance Biotech Grant, awarded to small- to mid-size biotechs that need funding and expertise to get their therapies to market.
- Moreover, we announced approval of our first U.S. patent for our proxy-CRISPR technology, making CRISPR more efficient, flexible and specific by opening the genome for modification of DNA and helping scientists modify regions of the genome that are difficult to access.
- In March, we announced that the Canadian patent office approved our patent application directed to the use of our paired CRISPR nickases in eukaryotic cells. This patent provides a more specific solution for scientists who need accurate methods when developing treatments for difficult-to-treat diseases to ultimately reach patients.
- Also in March, we announced the third annual tour of our Curiosity Cube™ mobile science lab, which will visit 100 communities across the United States and Canada.

- In addition, we announced a CRISPR core partnership with Zhejiang University to assist in the discovery of the relevance of specific genes in biological functions. It is the first institution in China to use our arrayed CRISPR library.
- We announced the introduction of Milli-Q® Connect, our new cloud-based, remote lab water service and monitoring capability for use with our Milli-Q® CLX 7000 clinical water purification systems. The solution turns passive data into active, actionable information available anytime and anywhere.
- In the same month, we announced a collaboration agreement with GenScript, a Chinese biotech company, focusing on plasmid and viral vector manufacturing. The goal of the agreement is to accelerate the industrialization and commercialization of cell and gene therapy in China.
- Furthermore, we opened our first European M Lab™ Collaboration Center in Molsheim, France, to address the rapidly growing biopharma industry in Europe and demand for cost-effective therapies worldwide.

Performance Materials

- Our Performance Materials business sector, a leading player in the electronics material market, comprises the specialty chemicals business of Merck and supplies solutions for displays, computer chips and surfaces of every kind.
- We are currently transforming the Performance Materials business sector with a view to adjusting to new market realities and customer requirements. The implementation of the Bright Future transformation program is well on track building the foundations to return to sustainable profitable growth, to ensure an attractive margin and to remain competitive.
- In January 2019, we exhibited new innovations for the electronics industry at the Consumer Electronics Show (CES) in Las Vegas, the most important stage worldwide for this industry.
- In February, Performance Materials entered into a strategic partnership with EvoNexus, a high-tech start-up incubator in California. With the partnership we are gaining access and insights into new technologies and trends from young companies in the United States.
- On April 12, Merck signed a definitive agreement to acquire Versum Materials, Inc. for US$ 53 per share in cash. 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 (US$ 1.4 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 significantly strengthen our Performance Materials business sector, creating a leading electronic materials player focused on the semiconductor and display industries.

Semiconductor Solutions

- Our Semiconductor Solutions business unit supplies innovative material-based solutions for the production of semiconductor chips which are the building units of electronic devices such as smartphones, PCs and Wearables. 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.
- Our R&D team made good progress with the low-resistivity metals project. The team identified multiple candidate molecules and processes which give low resistivity after deposition process. Currently, wafer demos with key customers are underway.
- We are also making good progress in the dielectric area with silicon-based precursor molecules. The team is working with key customers to define R&D projects.
- The first generation of Directed Self Assembly (DSA) products is getting closer to commercialization and we expect to be able to start launching them in the second half of 2019.
- We continued 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.
- For customers operating in markets such as Microelectromechanical Systems (MEMS), Sensors, Radio Frequency Filters, Power Integrated Circuits, we continue to develop our portfolio to meet the needs of these markets.
- Our conductive paste materials offer new value propositions to our customers as compared with existing interconnect materials, which are reaching end-of-life status. We are reassessing target applications to realize commercial success with current activities and focusing on expanding our reach to adjacent target fields in growing markets. We made developments with products catering to high-density printed circuit board (PCB) and advanced chip-scale-package LED markets and these products are moving closer towards commercialization. We are making continuous efforts to diversify our product offering and strengthen our positioning in the packaging industry.
- To better support our customers, we have expanded our research capacities in the United States, Germany and Taiwan, and are planning further research and production capacity expansions in Korea, Japan and China.

Display Solutions

- Our Display Solutions business unit consists of our Liquid Crystals, Organic Light-Emitting Diodes (OLED), Photoresists and Liquid Crystal Windows businesses.
- In Liquid Crystals, our newest materials are helping us maintain our position as the market and technology leader. With our XtraBright™ products, we were able to win new projects for large-area displays as well as high-resolution mobile devices.
- For liquid crystal window modules, first commercial architectural lighthouse projects are currently being installed after the launch of our new product brand eyrise™. In January 2019, we showcased our dynamic solar shading windows at BAU, the world's leading trade fair for architecture. At the exhibition, we presented a replica of the Niemeyer XS pavilion, an impressive demonstration of our contribution to a prestigious architectural project for Kirow, a crane manufacturer in Leipzig, Germany.
- 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.
- Ongoing and significant efficiency and lifetime performance improvements in our OLED materials offerings were successfully qualified in a number of upcoming devices.

Surface Solutions

- The core markets for Surface Solutions are automotive coatings and cosmetics, which we are serving with functional and decorative solutions. Currently our Surface Solutions business is in the process of aligning more closely with the needs of our markets and is thus adjusting strategic priorities.
- One focus is the continuous extension of our portfolio of pigments used in coating applications. In line with market trends, we develop innovative pigments to enhance styling opportunities for car lacquers. Recent additions in our offering are the effect pigments Xirallic® NXT Amur Black, allowing clean, deep blacks for new dark achromatic formulations and Meoxal® Victoria Red for high chromatic reds.
- Another R&D focus are new pigments for color cosmetics applications. In line with market demands for spectacular, both matte and luster effects, we extended our product lines with Ronastar® White Allure and Ronastar® Red Lights. In addition, we are pursuing a targeted approach to develop cosmetic ingredients of natural origin with proven efficacy.

Course of Business and Economic Position

Merck

Overview – Q1 2019

- All business sectors contribute to Group net sales increase of 7.5% to € 3.7 billion
- Group net sales show organic growth of 5.7%, supported by positive exchange rate effects (2.0%)
- Group EBITDA pre declines by −4.0% to € 929 million; EBITDA pre margin decreases to 24.8% (Q1 2018: 27.7%)
- Net financial debt amounts to € 7.1 billion on March 31, 2019 (December 31, 2018: € 6.7 billion)

MERCK GROUP

Key figures[1]

€ million	Q1 2019	Q1 2018	Change
Net sales	3,746	3,486	7.5%
Operating result (EBIT)[2]	379	502	−24.6%
Margin (% of net sales)[2]	10.1%	14.4%	
EBITDA[2]	853	924	−7.7%
Margin (% of net sales)[2]	22.8%	26.5%	
EBITDA pre[2]	929	967	−4.0%
Margin (% of net sales)[2]	24.8%	27.7%	
Profit after tax	190	342	−44.6%
Earnings per share (€)	0.43	0.78	−44.9%
Earnings per share pre (€)[2]	1.13	1.33	−15.4%
Business free cash flow[2]	545	718	−24.1%

[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).

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In the first quarter of 2019, net sales of the Merck Group increased by 7.5% to € 3,746 million (Q1 2018: € 3,486 million). All three business sectors contributed to this positive development. Organic sales growth amounted to 5.7% or € 199 million, and was supported by positive exchange rate effects of 2.0% or € 69 million. In particular, the Life Science business sector contributed to organic sales growth (9.4%). Sales increases due to foreign exchange effects primarily stemmed from the U.S. dollar and the Japanese yen. Foreign exchange developments in the Latin America region had a negative impact. The effect of the December 2018 divestment of the Flow Cytometry business, which was part of the Life Science business sector, on Group sales was −0.2% in the first quarter of 2019.

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Net sales by business sector

€ million	Q1 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q1 2018[2]	Share
Healthcare	1,481	40%	2.9%	0.4%	–	3.2%	1,435	41%
Life Science	1,661	44%	9.4%	2.8%	–0.5%	11.7%	1,487	43%
Performance Materials	604	16%	3.2%	3.9%	–	7.1%	564	16%
Merck Group	**3,746**	**100%**	**5.7%**	**2.0%**	**–0.2%**	**7.5%**	**3,486**	**100%**

[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 quarter of 2019, the Life Science business sector generated a double-digit sales increase of 11.7% to € 1,661 million (Q1 2018: € 1,487 million), which was mainly due to favorable organic sales growth. Accounting for a 44% (Q1 2018: 43%) share of Group sales, Life Science was the Group's largest business sector in terms of sales. In the first quarter of 2019, net sales of the Healthcare business sector increased by 3.2% to € 1,481 million (Q1 2018: € 1,435 million). Healthcare's share of Group net sales thus decreased to 40% (Q1 2018: 41%). Net sales of the Performance Materials business sector amounted to € 604 million (Q1 2018: € 564 million). This represented an increase of 7.1%, which was attributable to organic growth of 3.2% and positive exchange rate effects of 3.9%. This business sector's percentage contribution to Group sales was unchanged at 16%.

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

MERCK GROUP

Net sales by region

€ million	Q1 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q1 2018[2]	Share
Europe	1,177	32%	5.2%	–0.7%	–0.2%	4.2%	1,129	32%
North America	934	25%	–1.2%	6.9%	–0.3%	5.4%	887	26%
Asia-Pacific (APAC)	1,287	34%	10.2%	3.1%	–0.2%	13.1%	1,138	33%
Latin America	230	6%	16.1%	–10.4%	–	5.7%	218	6%
Middle East and Africa (MEA)	118	3%	0.4%	2.5%	–	2.9%	114	3%
Merck Group	**3,746**	**100%**	**5.7%**	**2.0%**	**–0.2%**	**7.5%**	**3,486**	**100%**

[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".

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

MERCK GROUP

Consolidated Income Statement[1]

€ million	Q1 2019	Q1 2018	Change
Net sales	**3,746**	**3,486**	**7.5%**
Cost of sales	–1,384	–1,260	9.8%
Gross profit	**2,362**	**2,226**	**6.1%**
Marketing and selling expenses	–1,091	–1,021	6.9%
Administration expenses	–283	–257	10.0%
Research and development costs	–527	–508	3.7%
Impairment losses and reversals of impairment losses on financial assets (net)	–4	–2	62.3%
Other operating expenses and income	–79	65	> 100.0%
Operating result (EBIT)[2]	**379**	**502**	**–24.6%**
Financial result	–113	–61	83.9%
Profit before income tax	**266**	**441**	**–39.6%**
Income tax	–67	–108	–37.8%
Profit after tax from continuing operations	**199**	**333**	**–40.2%**
Profit after tax from discontinued operation	**–10**	**9**	**> 100.0%**
Profit after tax	**190**	**342**	**–44.6%**
Non-controlling interests	–1	–1	–0.6%
Net income	**189**	**341**	**–44.7%**

[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 6.1% in gross profit to € 2,362 million (Q1 2018: € 2,226 million). The resulting gross margin of the Group, i.e. gross profit as a percentage of net sales, slipped slightly to 63.1% (Q1 2018: 63.9%).

Research and development costs rose by 3.7% to € 527 million (Q1 2018: € 508 million), leading to a Group research spending ratio (research and development costs as a percentage of sales) of 14.1% (Q1 2018: 14.6%). Accounting for a 74% (Q1 2018: 76%) share of research and development expenses of all business sectors, Healthcare is the most research-intensive business sector of Merck.

Other operating expenses and income showed an expense balance of € –79 million in the first quarter of 2019; in the year-earlier quarter this item showed an income balance of € 65 million. This strong change was largely due to developments in the Healthcare business sector (see explanations under "Healthcare"). In particular, the comparable year-earlier figure included income from a milestone payment from BioMarin Pharmaceutical Inc., USA, amounting to € 50 million. Moreover, currency hedging losses led to an increase in other operating expenses in the first quarter of 2019.

Higher provisions for obligations from long-term variable compensation programs (Merck Long-Term Incentive Plan) negatively impacted the operating result in the first quarter of 2019. The increase in the intrinsic value of Merck Share Units (MSUs) was recognized under the respective functional costs in the income statement depending on the field of activity of the eligible participants.

The increase in the negative financial result to € –113 million (Q1 2018: € –61 million) was mainly due to the reassessment of an option (see "Significant events during the reporting period" under "Supplemental Financial Information"). The resulting expenses were eliminated in the calculation of earnings per share pre.

Income tax expenses of € 67 million (Q1 2018: € 108 million) led to an effective tax rate of 25.2% (Q1 2018: 24.5%).

Profit after tax of discontinued operation comprised the divested Consumer Health business.

Net income, i.e. profit after tax attributable to Merck KGaA shareholders, declined to € 189 million (Q1 2018: € 341 million), yielding earnings per share of € 0.43 in the first quarter of 2019 (Q1 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.

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Reconciliation EBITDA pre[1]

	Q1 2019			Q1 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**3,746**	**–**	**3,746**	**3,486**	**–**	**3,486**	**7.5%**
Cost of sales	–1,384	16	–1,368	–1,260	3	–1,257	8.8%
Gross profit	**2,362**	**16**	**2,378**	**2,226**	**3**	**2,229**	6.7%
Marketing and selling expenses	–1,091	3	–1,088	–1,021	–	–1,020	6.6%
Administration expenses	–283	37	–246	–257	36	–221	11.5%
Research and development costs	–527	16	–511	–508	–	–508	0.6%
Impairment losses and reversals of impairment losses on financial assets (net)	–4	–	–4	–2	–	–2	62.2%
Other operating expenses and income	–79	4	–75	65	3	68	>100.0%
Operating result (EBIT)[1]	**379**			**502**			
Depreciation/amortization/impairment losses/reversals of impairment losses	474	–	474	422	–	422	12.3%
EBITDA[1]	**853**			**924**			
Restructuring expenses	61	–61	–	6	–6	–	
Integration expenses/IT expenses	13	–13	–	21	–21	–	
Gains (–)/losses (+) on the divestment of businesses	2	–2	–	2	–2	–	
Acquisition-related adjustments	–	–	–	1	–1	–	
Other adjustments	–1	1	–	14	–14	–	
EBITDA pre[1]	**929**	**–**	**929**	**967**	**–**	**967**	–4.0%
of which: organic growth[1]							–2.0%
of which: exchange rate effects							–1.6%
of which: acquisitions/divestments							–0.4%

[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 key financial indicator used to steer operating business, decreased by –4.0% to € 929 million (Q1 2018: € 967 million). The impact of foreign exchange effects on EBITDA pre was –1.6%. Relative to net sales, the EBITDA pre margin was 24.8% in the first quarter of 2019 (Q1 2018: 27.7%). Earnings per share pre (earnings per share after net of tax effect of adjustments and amortization of purchased intangible assets) fell by –15.4% to € 1.13 (Q1 2018: € 1.33).

NET ASSETS AND FINANCIAL POSITION

MERCK GROUP

Balance sheet structure

	March 31, 2019		Dec. 31, 2018[1]		Change	
	€ million	**in %**	€ million	in %	€ million	in %
Non-current assets	**28,204**	**72.8%**	**27,652**	**75.0%**	**552**	**2.0%**
of which:						
Goodwill	13,966		13,764		202	
Other intangible assets	7,052		7,237		–185	
Property, plant and equipment	5,291		4,811		479	
Other non-current assets	1,896		1,840		56	
Current assets	**10,512**	**27.2%**	**9,236**	**25.0%**	**1,277**	**13.8%**
of which:						
Inventories	2,937		2,764		173	
Trade and other current receivables	3,616		3,226		390	
Other current financial assets	64		29		36	
Other current assets	1,555		1,048		507	
Cash and cash equivalents	2,340		2,170		169	
Total assets	**38,717**	**100.0%**	**36,888**	**100.0%**	**1,829**	**5.0%**
Equity	**17,676**	**45.7%**	**17,233**	**46.7%**	**443**	**2.6%**
Non-current liabilities	**9,847**	**25.4%**	**11,138**	**30.2%**	**–1,291**	**–11.6%**
of which:						
Provisions for pensions and other post-employment benefits	2,455		2,336		118	
Other non-current provisions	864		780		84	
Non-current financial debt	5,047		6,681		–1,633	
Other non-current liabilities	1,481		1,340		141	
Current liabilities	**11,194**	**28.9%**	**8,517**	**23.1%**	**2,677**	**31.4%**
of which:						
Current provisions	591		600		–10	
Current financial debt	4,443		2,215		2,228	
Trade and other current payables/Refund liabilities	2,174		2,238		–64	
Other current liabilities	3,987		3,464		523	
Total liabilities and equity	**38,717**	**100.0%**	**36,888**	**100.0%**	**1,829**	**5.0%**

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

Total assets of the Merck Group rose in the first quarter of 2019 by 5.0% to € 38,717 million (December 31, 2018: € 36,888 million). Since the beginning of 2019, working capital has risen by 8.5% to € 3,782 million (December 31, 2018: € 3,486 million), mainly owing to an increase in trade accounts receivable as well as inventories.

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

MERCK GROUP

Net financial debt[1]

	March 31, 2019	Dec. 31, 2018	Change	
	€ million	€ million	€ million	in %
Bonds and commercial paper	7,362	7,286	76	1.0%
Bank loans	715	620	96	15.5%
Liabilities to related parties	834	824	9	1.1%
Loans from third parties and other financial liabilities	71	72	–1	–1.0%
Liabilities from derivatives (financial transactions)	61	90	–28	–31.8%
Lease liabilities	447	4	443	> 100.0%
Financial debt	**9,490**	**8,896**	**594**	**6.7%**
less:				
Cash and cash equivalents	2,340	2,170	169	7.8%
Current financial assets[2]	61	24	37	> 100.0%
Net financial debt[1]	**7,089**	**6,701**	**389**	**5.8%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Excluding current derivatives (operational).

MERCK GROUP

Reconciliation of net financial debt[1]

€ million	2019
January 1	**6,701**
Currency translation difference	67
Lease liabilities owing to the first-time application of IFRS 16	465
Dividend payments to shareholders and to E. Merck KG[2]	61
Acquisitions[2]	–
Free cash flow[1]	–295
Other	90
March 31	**7,089**

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

Equity rose in the first quarter of 2019 by 2.6% to € 17,676 million (December 31, 2018: € 17,233 million). The equity ratio slipped by one percentage point to 45.7% (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]

€ million	Q1 2019	Q1 2018	Change
Cash flow from operating activities as reported in the consolidated cash flow statement	493	380	29.5%
Payments for investments in intangible assets	–9	–21	–55.5%
Payments from the disposal of intangible assets	17	6	> 100.0%
Payments for investments in property, plant and equipment	–209	–228	–8.5%
Payments from the disposal of property, plant and equipment	3	10	–72.3%
Free cash flow[1]	**295**	**149**	**98.4%**

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

Business free cash flow of the Merck Group declined in the first quarter of 2019 to € 545 million (Q1 2018: € 718 million). This was primarily due to higher inventories and the decrease in EBITDA pre.

MERCK GROUP

Business free cash flow[1,2]

€ million	Q1 2019	Q1 2018	Change
EBITDA pre[2]	929	967	–4.0%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–126	–129	–2.5%
Changes in inventories as reported in the consolidated balance sheet	–173	–69	> 100.0%
Changes in trade accounts receivable and receivables from royalties and licenses as reported in the consolidated balance sheet	–59	–51	16.0%
Lease payments[3]	–26	–	–
Business free cash flow[2]	**545**	**718**	**–24.1%**

[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).
[3] Excluding payments for low-value leases and interest components included in lease payments.

Healthcare

HEALTHCARE

Key figures[1]

€ million	Q1 2019	Q1 2018	Change
Net sales	1,481	1,435	3.2%
Operating result (EBIT)[2]	128	195	–34.4%
Margin (% of net sales)[2]	8.6%	13.6%	
EBITDA[2]	329	379	–13.1%
Margin (% of net sales)[2]	22.2%	26.4%	
EBITDA pre[2]	332	381	–13.0%
Margin (% of net sales)[2]	22.4%	26.6%	
Business free cash flow[2]	222	299	–25.6%

[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).

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In the first quarter of 2019, the Healthcare business sector generated solid organic sales growth of 2.9%. Including positive foreign exchange effects of 0.4%, net sales amounted to € 1,481 million in the first quarter (Q1 2018: € 1,435 million). The exchange rate effect reflects the positive impact of the increase in value of the U.S. dollar against the euro, which was softened by the development of individual Latin American currencies as well as the Turkish lira.

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

HEALTHCARE

Net sales by major product lines/products

€ million	Q1 2019	Share	Organic growth[1]	Exchange rate effects	Total change	Q1 2018[2]	Share
Oncology	229	16%	2.7%	–1.3%	1.4%	226	16%
thereof: Erbitux®	*199*	*13%*	*1.6%*	*–1.9%*	*–0.3%*	*200*	*14%*
thereof: Bavencio®	*22*	*1%*	*69.6%*	*7.0%*	*76.6%*	*12*	*1%*
Neurology & Immunology	342	23%	–7.2%	1.8%	–5.4%	362	25%
thereof: Rebif®	*299*	*20%*	*–16.4%*	*2.1%*	*–14.2%*	*348*	*24%*
thereof: Mavenclad®	*43*	*3%*	*> 100.0%*	*–5.9%*	*> 100.0%*	*13*	*1%*
Fertility	287	19%	7.9%	0.6%	8.5%	265	19%
thereof: Gonal-f®	*168*	*11%*	*0.5%*	*0.7%*	*1.2%*	*166*	*12%*
General Medicine & Endocrinology	570	38%	9.5%	–0.1%	9.5%	520	36%
thereof: Glucophage®	*180*	*12%*	*20.9%*	*0.1%*	*21.1%*	*149*	*10%*
thereof: Concor®	*117*	*8%*	*18.2%*	*–0.1%*	*18.1%*	*99*	*7%*
thereof: Euthyrox®	*91*	*6%*	*13.0%*	*–0.8%*	*12.2%*	*81*	*6%*
thereof: Saizen®	*55*	*4%*	*2.3%*	*–4.4%*	*–2.1%*	*56*	*4%*
Other	52	4%				61	4%
Healthcare	**1,481**	**100%**	**2.9%**	**0.4%**	**3.2%**	**1,435**	**100%**

[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".

Sales of the drug Rebif®, which is used to treat relapsing forms of multiple sclerosis, saw a double-digit organic sales decline of −16.4%. Including a positive exchange rate effect of 2.1%, sales amounted to € 299 million (Q1 2018: € 348 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 −19.4%. 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 decreased to € 179 million (Q1 2018: € 207 million). In Europe, continued competitive pressure led to an organic sales decline of −7.3%. Including currency headwinds of −1.8%, sales amounted to € 98 million (Q1 2018: € 107 million). The decrease in the other regions, where Rebif® generated sales of € 23 million (Q1 2018: € 34 million), was mainly attributable to the organic sales decrease in the Middle East & Africa region as well as to negative foreign exchange developments.

At € 199 million, net sales of the oncology medicine Erbitux® were at the level of the year-earlier quarter (Q1 2018: € 200 million). Slight organic growth (1.6%) was offset by negative exchange rate effects (−1.9%). In Europe, the negative organic development of −9.6% continued to reflect the difficult competitive environment. Consequently, sales of Erbitux® in the region fell to € 98 million (Q1 2018: € 109 million). With organic growth of 29.8%, the Asia-Pacific region developed very favorably, delivering sales of € 75 million (Q1 2018: € 56 million). The addition of Erbitux® to the National Reimbursement Drug List in China was a major driver. In Latin America, organic sales growth of 7.8% could not offset negative foreign exchange effects (−29.2%). At € 15 million, Erbitux® sales were thus below the year-earlier quarter (Q1 2018: € 19 million). The Middle East and Africa region generated net sales of € 11 million (Q1 2018: € 15 million).

HEALTHCARE

Product sales and organic growth[1] of Rebif® and Erbitux® by region – Q1 2019

		Total	Europe	North America	Asia-Pacific (APAC)	Latin America	Middle East and Africa (MEA)
Rebif®	€ million	299	98	179	3	8	12
	Organic growth[1] in %	−16.4%	−7.3%	−19.4%	−0.8%	−9.8%	−41.3%
	% of sales	100%	33%	60%	1%	2%	4%
Erbitux®	€ million	199	98	–	75	15	11
	Organic growth[1] in %	1.6%	−9.6%	–	29.8%	7.8%	−30.7%
	% of sales	100%	49%	–	38%	7%	6%

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

With Mavenclad®, a medicine for the oral short-course treatment of relapsing multiple sclerosis in patients with high disease activity, sales of € 43 million were generated in the first quarter of 2019 (Q1 2018: € 13 million). In March 2019, Mavenclad® was also approved in the United States. Sales of the immuno-oncology drug Bavencio® increased to € 22 million (Q1 2018: € 12 million).

Gonal-f®, the leading recombinant hormone for the treatment of infertility, showed stable organic growth, generating sales of € 168 million, which were at the level of the year-earlier quarter (Q1 2018: € 166 million). The other products in the Fertility portfolio generated 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, delivered an organic sales increase of 9.5%, yielding net sales of € 570 million (Q1 2018: € 520 million). The top-selling medicine from this franchise, the anti-diabetic agent Glucophage®, contributed significantly to this development, generating organic sales growth of 20.9% and net sales of € 180 million (Q1 2018: € 149 million). The beta-blocker Concor® delivered double-digit organic growth of 18.2%. Sales of this product in the first quarter of 2019 were € 117 million (Q1 2018: € 99 million).

Net sales of the business sector by region developed as follows:

HEALTHCARE

Net sales by region

€ million	Q1 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q1 2018[2]	Share
Europe	538	36%	0.8%	–1.7%	–	–0.9%	543	38%
North America	305	21%	–12.7%	6.0%	–	–6.7%	327	23%
Asia-Pacific (APAC)	389	26%	16.6%	1.9%	–	18.5%	328	23%
Latin America	157	11%	17.5%	–10.2%	–	7.3%	146	10%
Middle East and Africa (MEA)	92	6%	–2.2%	3.8%	–	1.6%	91	6%
Healthcare	**1,481**	**100%**	**2.9%**	**0.4%**	**–**	**3.2%**	**1,435**	**100%**

[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".

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

HEALTHCARE

Reconciliation EBITDA pre[1]

	Q1 2019			Q1 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**1,481**	**–**	**1,481**	**1,435**	**–**	**1,435**	**3.2%**
Cost of sales	–325	–	–325	–334	–	–333	–2.6%
Gross profit	**1,156**	**–**	**1,156**	**1,101**	**–**	**1,101**	5.0%
Marketing and selling expenses	–550	–	–550	–550	–	–551	–0.1%
Administration expenses	–88	2	–86	–77	3	–74	16.1%
Research and development costs	–380	–	–380	–379	–	–379	0.5%
Impairment losses and reversals of impairment losses on financial assets (net)	–4	–	–4	–	–	–	–
Other operating expenses and income	–6	1	–5	100	–	100	>100.0%
Operating result (EBIT)[1]	**128**			**195**			
Depreciation/amortization/impairment losses/reversals of impairment losses	201	–	201	184	–	184	9.5%
EBITDA[1]	**329**			**379**			
Restructuring expenses	–	–	–	–1	1	–	
Integration expenses/IT expenses	2	–2	–	3	–3	–	
Gains (–)/losses (+) on the divestment of businesses	1	–1	–	–	–	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	1	–1	–	
EBITDA pre[1]	**332**	**–**	**332**	**381**	**–**	**381**	–13.0%
of which: organic growth[1]							–13.9%
of which: exchange rate effects							1.0%
of which: acquisitions/divestments							–

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

In the first quarter of 2019, gross profit of the Healthcare business sector rose by 5.0% to € 1,156 million (Q1 2018: € 1,101 million). This led to an increase in gross margin to 78.1% (Q1 2018: 76.7%).

Marketing and selling expenses were at the year-earlier level. Research and development costs reflected continued investments in the Biopharma development pipeline and amounted to € 380 million (Q1 2018: € 379 million). The decrease in other operating expenses and income was due particularly to a one-time effect in the year-earlier quarter. The first quarter of 2018 included a milestone payment of € 50 million from BioMarin Pharmaceutical Inc., USA, in connection with the sale of the rights to Peg-Pal in 2016. In the first quarter of 2019, an impairment loss of € 27 million on an intangible asset in connection with the immuno-oncology collaboration with F-star Delta Ltd. was recorded under other operating expenses (see "Significant events during the reporting period" under "Supplemental Financial Information").

EBITDA pre decreased organically by −13.9% to € 332 million (Q1 2018: € 381 million). Exchange rates had a slightly positive effect of 1.0%. The resulting margin (EBITDA pre as a percentage of sales) was 22.4% in the first quarter of 2019 (Q1 2018: 26.6%).

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the first quarter of 2019, business free cash flow amounted to € 222 million (Q1 2018: € 299 million). The decrease was due to lower EBITDA pre and the increase in inventories. This development was mitigated to some extent by the decline in receivables.

HEALTHCARE

Business free cash flow[1, 2]

€ million	**Q1 2019**	Q1 2018	Change
EBITDA pre[2]	332	381	−13.0%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	−47	−40	16.8%
Changes in inventories	−66	−15	> 100.0%
Changes in trade accounts receivable and receivables from royalties and licenses	13	−27	> 100.0%
Lease payments[3]	−10	–	–
Business free cash flow[2]	**222**	**299**	**−25.6%**

[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).
[3] Excluding payments for low-value leases and interest components included in lease payments.

Life Science

LIFE SCIENCE

Key figures

€ million	Q1 2019	Q1 2018	Change
Net sales	1,661	1,487	11.7%
Operating result (EBIT)[1]	313	273	14.8%
Margin (% of net sales)[1]	18.9%	18.4%	
EBITDA[1]	507	442	14.8%
Margin (% of net sales)[1]	30.5%	29.7%	
EBITDA pre[1]	516	455	13.5%
Margin (% of net sales)[1]	31.0%	30.6%	
Business free cash flow[1]	268	375	–28.5%

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

DEVELOPMENT OF SALES AND RESULTS OF OPERATIONS

In the first quarter of 2019, Life Science posted strong organic sales growth of 9.4%. Supported by a favorable foreign exchange impact of 2.8%, net sales grew by 11.7% to € 1,661 million (Q1 2018: € 1,487 million). All three business units contributed to organic growth, with the largest contribution coming from Process Solutions, followed by the Applied Solutions portfolio.

LIFE SCIENCE

Net sales by business unit

€ million	Q1 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q1 2018[2]	Share
Process Solutions	700	42%	15.1%	3.5%	–	18.7%	590	40%
Research Solutions	543	33%	4.0%	2.6%	–	6.7%	509	34%
Applied Solutions	418	25%	7.7%	1.9%	–2.0%	7.6%	388	26%
Life Science	**1,661**	**100%**	**9.4%**	**2.8%**	**–0.5%**	**11.7%**	**1,487**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Previous year's figures have been adjusted due 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 15.1%, which was the highest rate within the Life Science business sector. Including a favorable foreign exchange effect of 3.5%, net sales totaled € 700 million in the first quarter of 2019 (Q1 2018: € 590 million). Process Solutions thus accounted for 42% of Life Science net sales. The increase was primarily driven by continued dynamic demand from pharmaceutical and biotech customers (BioProcessing). In regional terms, Europe was the strongest growth driver for Process Solutions.

The Research Solutions business unit, which provides products and services to support life science research for pharmaceutical, biotechnology and academic research laboratories, generated an organic sales increase of 4.0%. Supported by a favorable foreign exchange effect of 2.6%, sales totaled € 543 million in the first quarter of 2019 (Q1 2018: € 509 million). Organic growth was driven by all business fields. Research Solutions accounted for 33% of Life Science net sales. In regional terms, Asia-Pacific was the strongest growth driver for Research Solutions.

With its broad range of products for researchers as well as scientific and industrial laboratories, the Applied Solutions business unit delivered strong organic sales growth of 7.7% in the first quarter of 2019. This represented 25% of the business sector's net sales. Organic growth occurred across all of Applied Solutions. The divestment of the Flow Cytometry business led to a negative portfolio effect. Including a favorable foreign exchange effect of 1.9%, sales totaled € 418 million in the first quarter of 2019 (Q1 2018: € 388 million). The sales performance of Applied Solutions was driven by all business fields, and primarily in Europe and China.

Net sales of the business sector by region developed as follows:

LIFE SCIENCE

Net sales by region

€ million	Q1 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q1 2018	Share
Europe	581	35%	10.7%	0.2%	–0.5%	10.4%	526	35%
North America	575	35%	6.5%	7.5%	–0.6%	13.5%	507	34%
Asia-Pacific (APAC)	418	25%	10.6%	2.9%	–0.6%	12.9%	371	25%
Latin America	65	4%	14.3%	–12.0%	–0.1%	2.2%	63	4%
Middle East and Africa (MEA)	22	1%	9.7%	–2.8%	–0.1%	6.7%	21	2%
Life Science	**1,661**	**100%**	**9.4%**	**2.8%**	**–0.5%**	**11.7%**	**1,487**	**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 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]

	Q1 2019			Q1 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**1,661**	**–**	**1,661**	**1,487**	**–**	**1,487**	**11.7%**
Cost of sales	–719	1	–718	–650	3	–647	11.0%
Gross profit	**942**	**1**	**943**	**837**	**3**	**840**	12.2%
Marketing and selling expenses	–470	1	–469	–409	1	–408	14.9%
Administration expenses	–88	6	–81	–78	8	–69	17.1%
Research and development costs	–62	–	–62	–59	–	–59	3.7%
Impairment losses and reversals of impairment losses on financial assets (net)	–	–	–	–1	–	–1	–
Other operating expenses and income	–10	1	–8	–16	1	–15	–45.4%
Operating result (EBIT)[1]	**313**			**273**			
Depreciation/amortization/impairment losses/reversals of impairment losses	193	–	193	169	–	169	14.7%
EBITDA[1]	**507**			**442**			
Restructuring expenses	1	–1	–	–	–	–	
Integration expenses/IT expenses	7	–7	–	12	–12	–	
Gains (–)/losses (+) on the divestment of businesses	–	–	–	–	–	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	1	–1	–	
EBITDA pre[1]	**516**	**–**	**516**	**455**	**–**	**455**	13.5%
of which: organic growth[1]							13.4%
of which: exchange rate effects							0.9%
of which: acquisitions/divestments							–0.8%

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

The favorable development of net sales led to a double-digit increase in adjusted gross profit to € 943 million (Q1 2018: € 840 million). In comparison with the year-earlier period, gross margin increased slightly to 56.8% (Q1 2018: 56.5%).

Owing to the strong sales growth, EBITDA pre, the most important earnings indicator, rose by 13.5% to € 516 million € (Q1 2018: € 455 million). This increase was mainly attributable to organic growth (13.4%). Relative to net sales, the EBITDA pre margin improved to 31.0% in the first quarter of 2019 (Q1 2018: 30.6%).

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the first quarter of 2019, Life Science generated business free cash flow of € 268 million (Q1 2018: € 375 million). The decline was primarily due to higher inventories and receivables caused by strong net sales growth. The rise in EBITDA pre could not compensate for this effect.

LIFE SCIENCE

Business free cash flow[1]

€ million	**Q1 2019**	Q1 2018	Change
EBITDA pre[1]	516	455	13.5%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–59	–42	40.7%
Changes in inventories	–88	–24	> 100.0%
Changes in trade accounts receivable and receivables from royalties and licenses	–91	–14	> 100.0%
Lease payments[2]	–11	–	–
Business free cash flow[1]	**268**	**375**	**–28.5%**

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

Performance Materials

PERFORMANCE MATERIALS

Key figures

€ million	Q1 2019	Q1 2018	Change
Net sales	604	564	7.1%
Operating result (EBIT)[1]	95	136	–29.8%
Margin (% of net sales)[1]	15.8%	24.1%	
EBITDA[1]	157	192	–18.4%
Margin (% of net sales)[1]	26.0%	34.1%	
EBITDA pre[1]	193	196	–1.6%
Margin (% of net sales)[1]	31.9%	34.7%	
Business free cash flow[1]	172	137	25.5%

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

DEVELOPMENT OF NET SALES AND RESULTS OF OPERATIONS

In the first quarter of 2019, net sales of the Performance Materials business sector increased by 7.1% to € 604 million (Q1 2018: € 564 million). This reflects organic sales growth of 3.2% and positive exchange rate effects of 3.9%.

The Display Solutions business unit, consisting mainly of the business with liquid crystals, photoresists for display applications and OLED materials, generated slightly more than half of the net sales of Performance Materials. In the first quarter of 2019, the OLED materials and liquid crystal technologies businesses generated very good organic growth. The business with liquid crystal technologies continued to benefit in the first quarter from projects by panel manufacturers in China to build up production capacities. As a result, Display Solutions contributed more strongly than expected to the growth of Performance Materials.

The Semiconductor Solutions business unit comprises the business with materials used in integrated circuit production. Although the production of silicon wafers by customers in the first quarter of 2019 remained below expectations overall, strong organic sales growth was achieved with dielectric and deposition materials. By contrast, weak market conditions adversely affected process, silicon and lithography materials, which showed declining organic growth.

The Surface Solutions business unit comprises the businesses with pigments as well as functional and optoelectronic materials. Overall, net sales of this business unit in the first quarter of 2019 were in line with expectations. In particular, the business with active ingredients for skincare products performed well.

Net sales of the business sector by region developed as follows:

PERFORMANCE MATERIALS

Net sales by region

€ million	Q1 2019	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q1 2018	Share
Europe	58	10%	–4.1%	0.1%	–	–4.0%	61	11%
North America	54	9%	–5.1%	7.0%	–	1.9%	53	9%
Asia-Pacific (APAC)	480	79%	5.1%	4.2%	–	9.3%	439	78%
Latin America	9	1%	6.4%	–1.3%	–	5.1%	8	2%
Middle East and Africa (MEA)	3	1%	17.7%	1.0%	–	18.7%	3	–
Performance Materials	**604**	**100%**	**3.2%**	**3.9%**	**–**	**7.1%**	**564**	**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 quarter. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

PERFORMANCE MATERIALS

Reconciliation EBITDA pre[1]

	Q1 2019			Q1 2018[2]			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**604**	**–**	**604**	**564**	**–**	**564**	**7.1%**
Cost of sales	–338	15	–323	–275	–	–275	17.1%
Gross profit	**266**	**15**	**282**	**289**	**–**	**289**	–2.4%
Marketing and selling expenses	–66	2	–63	–60	–	–60	6.1%
Administration expenses	–23	1	–22	–22	3	–19	18.6%
Research and development costs	–72	16	–56	–59	–	–59	–4.7%
Impairment losses and reversals of impairment losses on financial assets (net)	–	–	–	–	–	–	–
Other operating expenses and income	–10	1	–9	–12	–	–12	–23.3%
Operating result (EBIT)[1]	**95**			**136**			
Depreciation/amortization/impairment losses/reversals of impairment losses	62	–	62	57	–	57	8.9%
EBITDA[1]	**157**			**192**			
Restructuring expenses	34	–34	–	–	–	–	
Integration expenses/IT expenses	1	–1	–	2	–2	–	
Gains (–)/losses (+) on the divestment of businesses	–	–	–	–	–	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	1	–1	–	
EBITDA pre[1]	**193**	**–**	**193**	**196**	**–**	**196**	–1.6%
of which: organic growth[1]							–8.5%
of which: exchange rate effects							6.8%
of which: acquisitions/divestments							–

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

Adjusted gross profit of the Performance Materials business sector was –2.4% lower in the first quarter of 2019 than in the year-earlier quarter, resulting in a gross margin of 46.6% (Q1 2018: 51.2%). This was mainly due to the price decline customary in the display industry. The operating result (EBIT) decreased by –29.8% million in the first quarter of 2019 to € 95 million (Q1 2018: € 136 million). Apart from the lower gross profit, this was primarily attributable to restructuring charges within the scope of the "Bright Future" program amounting to € 34 million, which were eliminated in the calculation of EBITDA pre. EBITDA pre of the business sector slipped by –1.6% to € 193 million (Q1 2018: € 196 million). At 31.9%, the EBITDA pre margin was below the strong year-earlier figure (Q1 2018: 34.7%).

DEVELOPMENT OF BUSINESS FREE CASH FLOW

In the first quarter of 2019, business free cash flow of the Performance Materials business sector grew by 25.5% to € 172 million (Q1 2018: € 137 million). In particular, this was driven by the decline in receivables, a smaller increase in inventories and lower investments compared with the first quarter of 2018.

PERFORMANCE MATERIALS

Business free cash flow[1]

€ million	**Q1 2019**	Q1 2018	Change
EBITDA pre[1]	193	196	–1.6%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–14	–22	–35.9%
Changes in inventories	–19	–29	–34.6%
Changes in trade accounts receivable and receivables from royalties and licenses	15	–7	> 100.0%
Lease payments[2]	–2	–	–
Business free cash flow[1]	**172**	**137**	**25.5%**

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

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[1]

€ million	**Q1 2019**	Q1 2018	Change
Operating result (EBIT)[2]	–158	–101	55.7%
EBITDA[2]	–140	–89	58.3%
EBITDA pre[2]	–112	–65	73.0%
Business free cash flow[2]	–118	–93	27.0%

[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).

After eliminating adjustments, administrative costs amounted to € 57 million in the first quarter of 2019 (Q1 2018: € 59 million). In the first quarter of 2019, the adjustments of administrative costs related mainly to restructuring expenses. Research and development costs spanning business sectors, for instance expenses for the Innovation Center, were allocated to Corporate and Other in the amount of € 13 million in the first quarter of 2019 (Q1 2018: € 11 million). After eliminating adjustments, other operating expenses (net) rose to € 52 million in the first quarter of 2019 (Q1 2018: € 6 million). This was largely due to a worsening of the currency result. After eliminating depreciation, amortization and adjustments, EBITDA pre totaled € –112 million in the first quarter of 2019 (Q1 2018: € –65 million). The change in business free cash flow to € –118 million (Q1 2018: € –93 million) was largely the outcome of the development of EBITDA pre as well as lower investments.

Outlook

With the publication of the results of 2018, we provided a forecast of the development of net sales, EBITDA pre and business free cash flow for the Merck Group and the individual business sectors in 2019. With the completion of the first quarter of 2019, we are now further specifying this forecast. The sale of the Consumer Health business to Procter & Gamble (P&G) was completed as of December 1, 2018. The 2018 figures already reflect this sale. For this reason, the sale has not been recorded as a portfolio effect in the comparison of the forecast with the figures for 2018. Moreover, Merck defines organic earnings growth as currency-adjusted and portfolio-adjusted growth. Accordingly, the effects resulting from the first-time application of the new accounting standard for leases (IFRS 16) are mainly reflected in organic earnings growth.

On April 12, 2019, Merck signed a definitive agreement to acquire Versum Materials, Inc. for US$ 53 per share in cash. The business combination has been unanimously approved by the Executive Board of Merck and by the Versum Board of Directors. The transaction is subject to the approval of Versum stockholders at a Versum special meeting, regulatory clearances and the satisfaction of other customary closing conditions. In addition, a definitive agreement to acquire Intermolecular Inc. was signed on May 6, 2019. Likewise, this transaction is subject to the approval of Intermolecular stockholders, regulatory clearances and the satisfaction of other customary closing conditions. The following forecast contains no assumptions on sales and earnings contributions from Versum and Intermolecular since both transactions are only expected to close in the second half of 2019.

Following a solid first quarter, we continue to expect for the full year 2019 a moderate organic net sales increase of +3% to +5% over the previous year. We still expect that Life Science and Healthcare will drive this growth, more than offsetting the decline in Performance Materials. Since the beginning of the year, the value of the euro has continued to decrease against the U.S. dollar. In the first quarter of 2019, the €/U.S. dollar exchange rate was below the range of 1.15 to 1.20 that we had previously expected for the full year 2019. In addition, various emerging market currencies, particularly in Latin America, have not developed as unfavorably as originally assumed at the beginning of the year. Therefore, we assume that exchange rate changes will have a slightly positive effect of 0% to +2% on our net sales growth over 2018 (previously: −1% to −2%). In contrast to our previous estimate for the full year 2019, we expect a €/US$ exchange rate in the range of 1.13–1.17. This development depends heavily on current political and macroeconomic factors. Consequently, we continue to expect high exchange rate volatility. Overall, we forecast Group net sales of € 15.3 billion to € 15.9 billion for 2019.

According to our expectations, in 2019 Group EBITDA pre will be in a corridor between € 4.15 billion and € 4.35 billion (2018: € 3.80 billion). We confirm our original expectation of a pronounced organic increase in a range of +10% to +13% in EBITDA pre compared with the previous year. Owing to our updated exchange rate assumption, we expect a slightly positive effect of 0% to +2% (previously: −3% to −4%) compared with 2018. We continue to expect the first-time application of the new accounting standard on leases (IFRS 16) to generate a positive contribution of around € 130 million to earnings.

For the Healthcare business sector, our forecast for a moderate organic increase in net sales 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 Middle East and Africa. Due to the successful FDA approval of Mavenclad® in the United States on March 29, 2019, we confirm our estimation of this product significantly contributing to growth, with sales reaching up to a mid-triple-digit million euro amount. We continue to expect that Bavencio® sales will be in the high double-digit euro million range in 2019. On account of exchange rate developments in recent weeks, we now forecast an exchange rate effect of −1% to +2% on Healthcare sales (previously: moderately negative effect). Overall, these developments should lead to sales ranging between € 6.45 billion and € 6.75 billion.

For 2019, we forecast EBITDA pre of the Healthcare business sector in the range of between € 1.82 billion and € 1.95 billion (2018: € 1.556 billion). We continue to assume pronounced organic growth of EBITDA pre in the range of +19% to +23% compared with 2018 (previously: low- to mid-twenties percentage range).

In the first quarter of 2019, the decline in sales of Rebif® and the resulting negative impact on earnings was more pronounced than we had previously assumed. For the full year, we still assume that the expected significant contributions to earnings from our new products, particularly Mavenclad®, will more than offset this negative earnings effect, albeit not as strongly as forecast at the beginning of the year.

The absence of one-time effects from fiscal 2018 totaling some € 180 million should be more than offset by expected earnings contributions from the active management of our pipeline assets as well as milestone payments. With respect to the global strategic alliance with GlaxoSmithKline plc announced on February 5, 2019 to co-develop and co-market bintrafusp alfa (M7824), for 2019 we expect a positive effect on earnings of around € 100 million from the upfront cash payment, which will be reported under other operating income. Lower than expected license payments for Erbitux® will also have a positive effect on earnings. Research and developments costs to develop our pipeline, especially in immuno-oncology, will increase slightly. This budgeted cost increase does, however, depend on the development of clinical data and on prioritization decisions. We also expect our marketing and selling costs to increase further, driven primarily by launch activities for Mavenclad®, particularly in the United States. However, we assume that research and development costs as well as marketing and selling costs are likely to decline in relation to sales. For EBITDA pre of Healthcare, we now forecast a slightly negative to slightly positive exchange rate effect ranging between –2% to +3% (previously: strongly negative exchange rate effect).

For our Life Science business sector, which had a good first quarter, we expect to see strong organic sales growth of between +6% and +7% in 2019 (previously: slightly above medium-term market growth of +4%). Owing to the continued very dynamic market environment in the Life Science sector, in our estimation all business units will contribute positively to organic growth. In 2019, the Process Solutions business unit is again likely to remain the strongest driver of organic growth, followed by Applied Solutions. The Research Solutions business unit should also contribute moderately 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 currency developments, we expect a slightly positive exchange rate effect of 0% to +3% (previously: slightly negative). Overall, we expect net sales of between € 6.55 billion and € 6.75 billion.

For 2019, we forecast EBITDA pre of the Life Science business sector in the range of between € 2.00 billion and € 2.10 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 +10% and +12% (previously: strong up to double-digit percentage growth). Apart from good sales growth, we forecast a slight operating margin increase of 20–30 basis points versus 2018 as well as an additional earnings contribution from the first-time application of IFRS 16. No incremental synergies from the acquisition of Sigma-Aldrich are expected in 2019. We assume that in 2019, organic EBITDA pre growth of the Life Science business sector will be supported by a slightly positive exchange rate effect of around 0% to +3% (previously: moderately negative effect).

We continue to forecast a moderate organic sales decline in the Performance Materials business sector in 2019. Specifically, we assume a range of –3% to 6% in comparison with 2018. In the first quarter, the Liquid Crystals business within the Display Solutions business unit noticeably benefited from individual customer capacity expansion projects, which are likely to support the business in the second quarter again. Our OLED materials business also generated very good organic growth. Despite these developments, overall we continue to expect that Display Solutions will see sales and price declines in 2019 as a whole, yet these will not be as pronounced as assumed at the beginning of the year. Owing to a sluggish market environment to date, the Semiconductor Solutions business will not be able to compensate for this development in 2019. Primarily due to the development of the euro against the U.S. dollar, we project a slightly positive foreign exchange effect of 0% to +2% for the Performance Materials business sector in 2019 (previously: neutral effect). Overall, this will lead to expected net sales of between € 2.25 billion and € 2.4 billion in fiscal 2019.

For 2019, we forecast EBITDA pre of the Performance Materials business sector in the range of between € 0.7 billion and € 0.76 billion (2018: € 0.786 billion). We still assume that the other business units and the savings from the Bright Future program will not be able to offset the sales and price declines expected for the full year in the highly profitable Liquid Crystals business. Consequently, we forecast that organic EBITDA pre will decline in the high single-digit to low teens percentage range in comparison with 2018. We now expect a range of between –7% and –11%. Owing to our modified exchange rate assumption, we expect a slightly positive effect of 0% to +4% (previously: neutral).

We project EBITDA pre of Corporate and Other for 2019 to be between € –420 million and € –480 million (2018: € –381 million). Previously we had forecast EBITDA pre of between € –360 million and € –400 million. Owing to our updated exchange rate assumption, we believe that the currency hedging effects in Corporate and Other will significantly burden EBITDA pre, in contrast to the positive contributions expected for the business sectors. Excluding exchange rate effects, we anticipate an increase in expenses of Corporate and Other of +13% to +16% compared with 2018 (previously: increase in the low- to mid-teens percentage range). We continue to invest in innovation and digitalization initiatives. A greater focus on reducing the costs of the administrative functions is likely to mitigate the increase.

MERCK GROUP

Forecast for FY 2019

€ million	Net sales	EBITDA pre	Business free cash flow
Merck Group	**~15,300 to 15,900** • Organic growth of +3% to +5% vs. 2018 • Exchange rate effect of 0% to +2%	**~4,150 to 4,350** • Organic growth of +10% to +13% vs. 2018 • Exchange rate effect of 0% to +2%	**~2,500 to 2,750**
Healthcare	**~6,450 to 6,750** • Moderate organic growth +4% to +6% • Exchange rate effect of –1% to +2%	**~1,820 to 1,950** • Organic growth of +19% to +23% • Exchange rate effect of –2% to +3%	**~1,200 to 1,300**
Life Science	**~6,550 to 6,750** • Organic growth of +6% to +7% • Exchange rate effect of 0% to +3%	**~2,000 to 2,100** with an operating margin expansion of 20 to 30 base points • Organic growth of around +10% to +12% • Exchange rate effect of 0% to +3%	**~1,300 to 1,400**
Performance Materials	**~2,250 to 2,400** • Moderate organic decline of –3% to –6% • Exchange rate effect of 0% to +2%	**~700 to 760** • Organic growth of –7% to –11% • Exchange rate effect of 0% to +4%	**~500 to 600**
Corporate and Other	–	**~–420 to –480**	**~–500 to –580**

EPS pre € 5.30 to € 5.65

Full-year FX assumption for 2019:
€ 1 = US$ 1.13 to US$ 1.17

Supplemental Financial Information

Consolidated Income Statement[1]

€ million	Q1 2019	Q1 2018
Net sales	**3,746**	**3,486**
Cost of sales	–1,384	–1,260
Gross profit	**2,362**	**2,226**
Marketing and selling expenses	–1,091	–1,021
Administration expenses	–283	–257
Research and development costs	–527	–508
Impairment losses and reversals of impairment losses on financial assets (net)	–4	–2
Other operating income	100	154
Other operating expenses	–179	–90
Operating result (EBIT)[2]	**379**	**502**
Finance income	16	14
Finance costs	–129	–75
Profit before income tax	**266**	**441**
Income tax	–67	–108
Profit after tax from continuing operations	**199**	**333**
Profit after tax from discontinued operation	**–10**	**9**
Profit after tax	**190**	**342**
thereof: attributable to Merck KGaA shareholders (net income)	189	341
thereof: attributable to non-controlling interests	1	1
Earnings per share (in €)		
basic	0.43	0.78
– thereof: from continuing operations	0.45	0.76
– thereof: from discontinued operation	–0.02	0.02
diluted	0.43	0.78
– thereof: from continuing operations	0.45	0.76
– thereof: from discontinued operation	–0.02	0.02

[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 Standards (IFRS).

Statement of Comprehensive Income

€ million	Q1 2019	Q1 2018
Profit after tax	**190**	**342**
Items of other comprehensive income that will not be reclassified to profit or loss in subsequent periods		
Net defined benefit liability		
Changes in remeasurement	–88	116
Tax effect	19	–24
Changes recognized in equity	–68	92
Equity instruments		
Fair value adjustments	–18	23
Tax effect	–	–
Changes recognized in equity	–17	23
	–85	115
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	–	–
Available-for-sale financial assets		
Fair value adjustments	–38	32
Reclassification to profit or loss	25	–6
Reclassification to assets	–	–
Tax effect	4	–7
Changes recognized in equity	–9	20
Cash flow hedge reserve		
Fair value adjustments	2	–4
Reclassification to profit or loss	–	–
Tax effect	–	–
Changes recognized in equity	2	–4
Cost of cash flow hedge reserve		
Fair value adjustments	346	–417
Reclassification to profit or loss	–	–2
Changes recognized in equity	346	–419
	339	–404
Other comprehensive income	**254**	**–289**
Comprehensive income	**444**	**53**
thereof: attributable to Merck KGaA shareholders	441	54
thereof: attributable to non-controlling interests	2	–1
Comprehensive income	**444**	**53**
thereof: from continuing operations	453	44
thereof: from discontinued operation	–10	9

Consolidated Balance Sheet[1]

€ million	March 31, 2019	Dec. 31, 2018
Non-current assets		
Goodwill	13,966	13,764
Intangible assets other than goodwill	7,052	7,237
Property, plant and equipment	5,291	4,811
Other non-current financial assets	595	656
Other non-current receivables	14	17
Other non-current non-financial assets	81	76
Deferred tax assets	1,205	1,091
	28,204	**27,652**
Current assets		
Inventories	2,937	2,764
Trade and other current receivables	3,616	3,226
Other current financial assets	64	29
Other current non-financial assets	1,126	587
Income tax receivables	429	460
Cash and cash equivalents	2,340	2,170
	10,512	**9,236**
Total assets	**38,717**	**36,888**
Total equity		
Equity capital	565	565
Capital reserves	3,814	3,814
Retained earnings	11,294	11,192
Gains/losses recognized in equity	1,967	1,629
Equity attributable to Merck KGaA shareholders	**17,640**	**17,200**
Non-controlling interests	35	33
	17,676	**17,233**
Non-current liabilities		
Provisions for pensions and other post-employment benefits	2,455	2,336
Other non-current provisions	864	780
Non-current financial debt	5,047	6,681
Other non-current financial liabilities	37	33
Other non-current non-financial liabilities	226	19
Deferred tax liabilities	1,218	1,288
	9,847	**11,138**
Current liabilities		
Current provisions	591	600
Current financial debt	4,443	2,215
Other current financial liabilities	1,385	1,077
Trade and other current payables	1,633	1,766
Refund liabilities	541	472
Income tax liabilities	1,279	1,176
Other current non-financial liabilities	1,323	1,211
	11,194	**8,517**
Total equity and liabilities	**38,717**	**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	Q1 2019	Q1 2018
Profit after tax	**190**	**342**
Depreciation/amortization/impairment losses reversals of impairment losses	474	428
Changes in inventories	–146	–92
Changes in trade accounts receivable	–15	–71
Changes in trade accounts payable/refund liabilities	–17	2
Changes in provisions	100	17
Changes in other assets and liabilities	–89	–235
Neutralization of gain/loss on disposals of assets	1	–9
Other non-cash income and expenses	–5	–1
Net cash flows from operating activities	**493**	**380**
thereof: from discontinued operation	–5	–15
Payments for investments in intangible assets	–9	–21
Payments from the disposal of intangible assets	17	6
Payments for investments in property, plant and equipment	–209	–228
Payments from the disposal of property, plant and equipment	3	10
Payments for investments in financial assets	–37	–13
Payments from/for acquisitions less acquired cash and cash equivalents	–	–
Payments from the disposal of other financial assets	7	33
Payments for the purchase of non-financial assets	–100	–
Payments from other divestments	–	–
Payments from divestment of assets held for sale	–	–
Net cash flows from investing activities	**–329**	**–213**
thereof: from discontinued operation	–	–4
Dividend payment to Merck KGaA shareholders	–	–
Dividend payments to non-controlling interests	–	–2
Dividend payments to E. Merck KG	–61	–63
Payments from new borrowings from E. Merck KG	9	–
Repayments of financial debt to E. Merck KG	–	–109
Repayments of bonds	–	–324
Changes in other current and non-current financial debt	49	494
Net cash flows from financing activities	**–3**	**–3**
thereof: from discontinued operation	–	25
Changes in cash and cash equivalents	**160**	**165**
Changes in cash and cash equivalents due to currency translation	9	–6
Cash and cash equivalents at the beginning of the reporting period	2,170	589
Changes in cash and cash equivalents due to reclassification to assets held for sale	–	–
Cash and cash equivalents as of March 31	**2,340**	**747**

Consolidated Statement of Changes in Net Equity

€ million	Equity capital			Retained earnings		
	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**	**9,926**	**–1,358**	**–6**
Profit after tax	–	–	–	341	–	–
Other comprehensive income	–	–	–	–	92	23
Comprehensive income	**–**	**–**	**–**	**341**	**92**	**23**
Dividend payments	–	–	–	–	–	–
Transactions with no change of control	–	–	–	–	–	–
Changes in scope of consolidation/Other	–	–	–	3	–	–
Balance as of March 31, 2018	**397**	**168**	**3,814**	**10,270**	**–1,266**	**17**
Balance as of January 1, 2019	**397**	**168**	**3,814**	**12,525**	**–1,340**	**7**
Profit after tax	–	–	–	189	–	–
Other comprehensive income	–	–	–	–	–68	–17
Comprehensive income	**–**	**–**	**–**	**189**	**–68**	**–17**
Dividend payments	–	–	–	–	–	–
Transactions with no change of control	–	–	–	–	–	–
Changes in scope of consolidation/Other	–	–	–	1	–	–1
Balance as of March 31, 2019	**397**	**168**	**3,814**	**12,714**	**–1,408**	**–12**

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 Merck KGaA	Non-controlling interests	Total equity
–1	**–121**	**–1**	**1,171**	**13,988**	**63**	**14,051**
–	–	–	–	341	1	342
–	20	–4	–417	–287	–2	–289
–	**20**	**–4**	**–417**	**54**	**–1**	**53**
–	–	–	–	–	–2	–2
–	–	–	–	–	–	–
–	–	–	–	3	–	3
–1	**–101**	**–6**	**754**	**14,045**	**60**	**14,105**
–1	**–128**	**–33**	**1,790**	**17,200**	**33**	**17,233**
–	–	–	–	189	1	190
–	–9	2	345	253	1	254
–	**–9**	**2**	**345**	**441**	**2**	**444**
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	**–137**	**–31**	**2,135**	**17,640**	**35**	**17,676**

Information by Business Sector

	Healthcare		Life Science		Performance Materials		Corporate and Other		Group	
€ million	**Q1 2019**	Q1 2018	**Q1 2019**	Q1 2018	**Q1 2019**	Q1 2018	**Q1 2019**	Q1 2018	**Q1 2019**	Q1 2018
Net sales[1]	**1,481**	**1,435**	**1,661**	**1,487**	**604**	**564**	**–**	**–**	**3,746**	**3,486**
Intersegment sales	–	–	10	14	–	–	–10	–14	–	–
Operating result (EBIT)[2]	**128**	**195**	**313**	**273**	**95**	**136**	**–158**	**–101**	**379**	**502**
Depreciation and amortization	174	182	193	169	62	57	17	13	447	420
Impairment losses	27	2	–	–	–	–	–	–	27	2
Reversals of impairment losses	–	–	–	–	–	–	–	–	–	–
EBITDA[2]	**329**	**379**	**507**	**442**	**157**	**192**	**–140**	**–89**	**853**	**924**
Adjustments[2]	3	3	9	13	35	3	28	24	76	43
EBITDA pre (Segment result)[2]	**332**	**381**	**516**	**455**	**193**	**196**	**–112**	**–65**	**929**	**967**
EBITDA pre margin (in % of net sales)[2]	22.4%	26.6%	31.0%	30.6%	31.9%	34.7%	–	–	24.8%	27.7%
Assets by business sector[3]	7,823	7,568	21,509	20,860	4,045	4,046	5,339	4,414	38,717	36,888
Liabilities by business sector[3]	–3,153	–2,893	–1,330	–1,333	–523	–489	–16,035	–14,940	–21,041	–19,655
Investments in property, plant and equipment[4]	98	88	76	65	14	28	22	47	209	228
Investments in intangible assets[4]	6	14	1	3	1	2	1	1	9	21
Net cash flows from operating activities	283	233	310	285	249	247	–350	–385	493	380
Business free cash flow[2]	222	299	268	375	172	137	–118	–93	545	718

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

€ million	**Q1 2019**	Q1 2018
EBITDA pre of the operating businesses[1]	**1,040**	**1,032**
Corporate and Other	–112	–65
EBITDA pre of the Merck Group[1]	**929**	**967**
Depreciation/amortization/impairment losses/reversals of impairment losses	–474	–422
Adjustments[1]	–76	–43
Operating result (EBIT)[1]	**379**	**502**
Financial result	–113	–61
Profit before income tax	**266**	**441**

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

€ million	**Q1 2019**	Q1 2018
Restructuring expenses	–61	–6
Integration expenses/IT expenses	–13	–21
Gains (+)/losses (–) on the divestment of businesses	–2	–2
Acquisition-related adjustments	–	–1
Other adjustments	1	–14
Adjustments before impairment losses/reversals of impairment losses[1]	**–76**	**–43**
Impairment losses	–	–
Reversals of impairment losses	**–**	–
Adjustments (total)[1]	**–76**	**–43**

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

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). The bifunctional fusion protein bintrafusp alfa is currently in clinical development and is being investigated in multiple forms of cancer. This includes a Phase II trial to investigate M7824 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, at the end of the first quarter of 2019 Merck became entitled to an upfront payment of € 300 million. Merck is recognizing this payment as income in accordance with the fulfillment of contractual performance obligations. Merck expects that in 2019, around € 100 million of the upfront payment will be recorded under other operating income.

Depending on the data from the lung cancer program, 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.

UPDATE ON IMMUNO-ONCOLOGY COLLABORATION WITH F-STAR DELTA LTD., UNITED KINGDOM

In June 2017, Merck announced a strategic collaboration with F-star Delta Ltd, United Kingdom, (F-star) for the development and commercialization of bispecific immuno-oncology antibodies. Due to a reprioritization of resources and programs, Merck has decided to no longer pursue the development of the bispecific antibody FS118 as part of the existing license and collaboration agreement with F-star. All rights to the development of FS118 revert to F-star. Merck maintains an option to fully acquire F-star Delta Ltd., which owns four additional novel bispecific antibodies from the F-star antibody platform currently in discovery. As a result of the changes, in the first quarter of 2019 an impairment loss of € 27 million was recorded as part of other operating expenses on the related intangible asset. Furthermore, the carrying amount of the existing option to acquire F-star Delta Ltd. was reduced by an amount of € 45 million; the corresponding expense was included in finance costs.

Subsequent events

On April 12, 2019, Merck announced that it had signed a definitive agreement to acquire all the issued and outstanding shares of Versum Materials, Inc., USA, (Versum) for US$ 53 per share in cash. 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 aim of the transaction is to create a leading electronic materials player focused on the semiconductor and display industries and to significantly strengthen the Performance Materials business sector. The transaction is expected to close in the second half of 2019, subject to the approval of Versum stockholders, regulatory clearances and the satisfaction of other customary closing conditions.

On May 6, 2019, Merck announced the signing of a definitive agreement to acquire Intermolecular Inc., USA, (Intermolecular) for US$ 1.20 per share in cash (equity value of around US$ 62 million). The acquisition serves to strengthen the semiconductor technology offering in the Performance Materials business sector. Intermolecular reported annual sales of US$ 34 million in fiscal 2018 and has around 90 employees. The transaction is expected to close in the second half of 2019, subject to the approval of Intermolecular's stockholders, regulatory clearances and the satisfaction of other customary closing conditions.

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 effect on the consolidated balance sheet was 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
	465

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	Q1 2018 as reported	Q1 2018 IFRS 5 adjustment	Q1 2018 Disclosure adjustment	Q1 2018 restated
Net sales	**3,691**	**–205**	**–**	**3,486**
Cost of sales	–1,320	60	–	–1,260
Gross profit	**2,371**	**–145**	**–**	**2,226**
Marketing and selling expenses	–1,106	86	–	–1,021
Administration expenses	–228	7	–36	–257
Research and development costs	–514	7	–	–508
Impairment losses and reversals of impairment losses on financial assets (net)	–3	–	–	–2
Other operating income	157	–3	–	154
Other operating expenses	–158	31	37	–90
Operating result (EBIT)[1]	**518**	**–15**	**–**	**502**
Financial result	–62	1	–	–61
Profit before income tax	**456**	**–15**	**–**	**441**
Income tax	–114	6	–	–108
Profit after tax from continuing operations	**342**	**–9**	**–**	**333**
Profit after tax from discontinued operation	**–**	**9**	**–**	**9**
Profit after tax	**342**	**–**	**–**	**342**
thereof: attributable to Merck KGaA shareholders (net income)	341	–	–	341
thereof: attributable to non-controlling interests	1	–	–	1
Earnings per share in € (basic/diluted)				
attributable to continuing operations	0.78	–0.02	–	0.76
attributable to discontinued operation	–	0.02	–	0.02
RECONCILIATION OF EBIT[1] TO EBITDA PRE[1]				
Operating result (EBIT)[1]	**518**	**–15**	**–**	**502**
Depreciation/amortization/impairment losses/reversals of impairment losses	428	–6	–	422
EBITDA[1]	**946**	**–21**	**–**	**924**
Restructuring expenses	7	–2	–	6
Integration expenses/IT expenses	21	–	–	21
Gains (–)/losses (+) on the divestment of businesses	2	–	–	2
Acquisition-related adjustments	1	–	–	1
Other adjustments	39	–25	–	14
EBITDA pre[1]	**1,015**	**–48**	**–**	**967**
BUSINESS FREE CASH FLOW[1]				
EBITDA pre[1]	1,015	–48	–	967
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–132	4	–	–129
Changes in inventories	–66	–3	–	–69
Changes in trade accounts receivable as well as receivables from royalties and licenses	–87	37	–	–51
Business free cash flow[1]	**729**	**–11**	**–**	**718**

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

HEALTHCARE RESULTS OF OPERATIONS

€ million	Q1 2018 as reported	IFRS 5 adjustment	Disclosure adjustment	restated
Net sales	**1,640**	**–205**	**–**	**1,435**
Cost of sales	–394	60	–	–334
Gross profit	**1,246**	**–145**	**–**	**1,101**
Marketing and selling expenses	–636	85	–	–550
Administration expenses	–81	7	–3	–77
Research and development costs	–385	7	–	–379
Remaining operating expenses and income	67	30	3	100
Operating result (EBIT)[1]	**211**	**–16**	**–**	**195**
Depreciation/amortization/impairment losses/reversals of impairment losses	190	–6	–	–184
EBITDA[1]	**401**	**–22**	**–**	**379**
Restructuring expenses	1	–2	–	–1
Integration expenses/IT expenses	3	–	–	3
Gains (–)/losses (+) on the divestment of businesses	–	–	–	–
Acquisition-related adjustments	–	–	–	–
Other adjustments	25	–24	–	1
EBITDA pre[1]	**430**	**–49**	**–**	**381**
BUSINESS FREE CASH FLOW[1]				
EBITDA pre1	430	–49	–	381
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–44	4	–	–40
Changes in inventories	–12	–3	–	–15
Changes in trade accounts receivable as well as receivables from royalties and licenses	–64	37	–	–27
Business free cash flow[1]	**310**	**–12**	**–**	**299**

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

LIFE SCIENCE RESULTS OF OPERATIONS

€ million	Q1 2018 as reported	Disclosure adjustment	restated
Net sales	**1,487**	**–**	**1,487**
Cost of sales	–650	–	–650
Gross profit	**837**	**–**	**837**
Marketing and selling expenses	–408	–1	–409
Administration expenses	–70	–8	–78
Research and development costs	–59	–	–59
Remaining other operating expenses and income	–27	9	–18
Operating result (EBIT)[1]	**273**	**–**	**273**

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

PERFORMANCE MATERIALS RESULTS OF OPERATIONS

€ million	Q1 2018 as reported	Disclosure adjustment	restated
Net sales	**564**	**–**	**564**
Cost of sales	–275	–	–275
Gross profit	**289**	**–**	**289**
Marketing and selling expenses	–60	–	–60
Administration expenses	–19	–3	–22
Research and development costs	–59	–	–59
Remaining other operating expenses and income	–15	3	–12
Operating result (EBIT)[1]	**136**	**–**	**136**

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

CONSOLIDATED INCOME STATEMENT

€ million	2018 as reported	2018 Disclosure adjustment	2018 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

€ million	2018 as reported	2018 Disclosure adjustment	2018 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

€ million	2018 as reported	2018 Disclosure adjustment	2018 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

€ million	2018 as reported	2018 Disclosure adjustment	2018 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, May 9, 2019

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FINANCIAL CALENDAR
for 2019 / 2020

August
8/8/2019
Half-yearly Financial Report

April
4/24/2020
Annual General Meeting

November
11/14/2019
Quarterly Statement Q3

May
5/14/2020
Quarterly Statement Q1

March
3/5/2020
Annual Press Conference

August
8/6/2020
Half-yearly Financial Report

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TYPESETTING + LAYOUT
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