MERCK

Quarterly Statement

3rd Quarter

2021

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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, 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 2020 has been optimized for mobile devices and is available on the Web at **merckgroup.com/en/annualreport/2020/**.

MERCK – IN BRIEF

Merck Group

Key figures

€ million	**Q3 2021**	Q3 2020	Veränderung	**Jan.–Sept. 2021**	Jan.–Sept. 2020	Change
Net sales	4,973	4,447	11.8%	14,474	12,936	11.9%
Operating result (EBIT)[1]	1,047	1,167	–10.2%	3,140	2,374	32.3%
Margin (% of net sales)[1]	21.1%	26.2%		21.7%	18.3%	
EBITDA[1]	1,495	1,619	–7.7%	4,433	3,815	16.2%
Margin (% of net sales)[1]	30.1%	36.4%		30.6%	29.5%	
EBITDA pre	1,552	1,701	–8.7%	4,639	3,956	17.3%
Margin (% of net sales)[1]	31.2%	38.2%		32.0%	30.6%	
Profit after tax	764	806	–5.3%	2,258	1,553	45.4%
Earnings per share (€)	1.75	1.85	–5.4%	5.18	3.57	45.1%
Earnings per share pre (€)[1]	2.24	2.34	–4.3%	6.66	5.14	29.6%
Operating cash flow	1,467	1,170	25.3%	3,571	2,189	63.1%

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

Merck Group

Net sales by quarter

€ million

Merck Group

EBITDA pre[1] by quarter

€ million

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

Developments within the Group and R&D

Merck

We are Merck, a vibrant science and technology company. Science is at the heart of everything we do. It drives the discoveries we make and the technologies we create. Our work makes a positive difference to millions of people's lives every day. In Healthcare, we discover unique ways to treat the most challenging diseases such as multiple sclerosis and cancer. Our Life Science experts empower scientists by developing tools and solutions that help deliver breakthroughs more quickly. And in Electronics, we develop science that sits inside technologies and changes the way we access and display information. Everything we do is fueled by a belief in science and technology as a force for good. A belief that has driven our work since 1668 and will continue to inspire us to find more joyful and sustainable ways to live. We are curious minds dedicated to human progress. We hold the global rights to the Merck name and brand. The only exceptions are Canada and the United States. In these countries, we operate as EMD Serono in the Biopharma business, as MilliporeSigma in the Life Science business and as EMD Electronics in the high-tech materials business. We had 59,308 employees worldwide on September 30, 2021, compared with 58,077 employees on September 30, 2020.

This section of the present quarterly statement summarizes the highlights of the third quarter of 2021 at Merck including those in research in development. A detailed description of Merck and its business sectors can be found in our Annual Report for 2020.

Merck Group

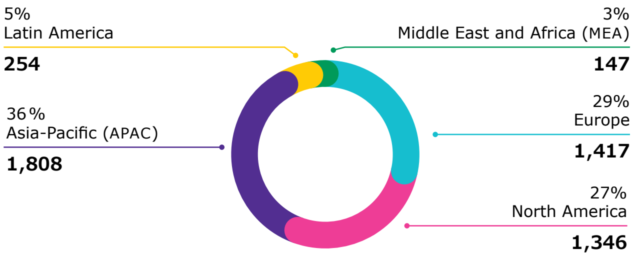
Net sales by business sector – Q3 2021

€ million / in % of net sales

Merck Group

Net sales by region – Q3 2021

€ million / in % of net sales



Healthcare

- Patients are at the center of our work and with every advance, we contribute to creating, improving and prolonging lives. This single ambition drives everything we do. With the continued evolution of our pipeline and a clear commitment to delivering on our performance objectives, we strengthen our position as a global specialty innovator.

Oncology and Immuno-Oncology

- On September 30, we announced the mutual decision to end the bintrafusp alfa agreement with GSK. The decision was based on the clinical trial data generated to date, most notably the previously reported results from the INTR@PID Lung 037 study, which did not replicate the encouraging data observed in earlier studies.
- Prior to that, we announced on August 23 the decision to discontinue the Phase II INTR@PID BTC 055 study evaluating bintrafusp alfa with gemcitabine plus cisplatin in the first-line treatment of patients with locally advanced or metastatic biliary tract cancer (BTC), based on a review of data conducted by the independent data monitoring committee.

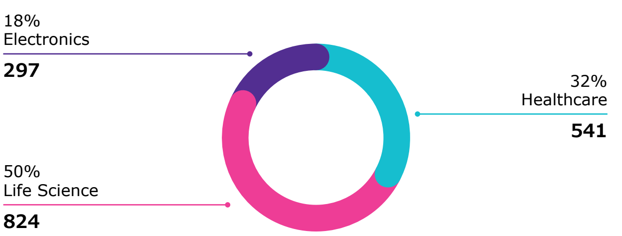
WCLC and ESMO 2021

- At this year's World Conference on Lung Cancer (WCLC) and the European Society of Medical Oncology (ESMO) annual meetings, we presented a total of 27 research abstracts from company-sponsored, investigator-sponsored, and collaborative studies – including two oral and two mini-oral presentations. At both these meetings, we presented analyses from ongoing and completed trials that have the potential to make a difference for patients by meaningfully informing treatment decisions in challenging tumors such as lung and bladder cancers.
- For Bavencio®, we and our alliance partner Pfizer presented real-world evidence supporting the continued need for first-line treatments for advanced urothelial carcinoma. Data from an investigator-sponsored study of avelumab in combination with neoadjuvant chemotherapy to treat muscle-invasive bladder cancer were also presented for the first time.
- For tepotinib, data from the VISION trial – the largest study of patients with METex14 skipping non-small cell lung cancer prospectively enrolled based on liquid and/or tissue biopsy (n=275), were shared. The new results demonstrated robust and durable efficacy and manageable safety. In addition, first-time results in key age subgroups including patients older than 75 years were shared.

Merck Group

EBITDA pre[1] by business sector[2] – Q3 2021

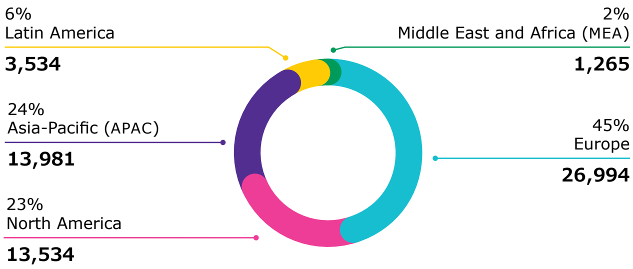
€ million / in%



Merck Group

Employees by region as of September 30, 2021

Number / in%



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

[2] Not presented: Decline in Group EBITDA pre by € –109 million due to Corporate and Other.

- A first-time look at the ongoing Phase II study of our ATR inhibitor, berzosertib, was presented in patients with relapsed platinum-resistant small cell lung cancer.
- Erbitux® continued to demonstrate in a number of studies its significant role as the backbone of treatment in metastatic colorectal cancer.
- For bintrafusp alfa, a National Cancer Institute (NCI)-led long-term follow-up study of patients with human papillomavirus (HPV)-associated malignancies was presented.

Neurology and Immunology

- Our current multiple sclerosis (MS) portfolio includes two products for the treatment of relapsing MS (RMS): Rebif® (interferon beta-1a) and Mavenclad® (cladribine tablets). Rebif® has been a standard of care in RMS treatment for more than 20 years with data supported by more than 1.6 million patient-years of therapy since approval. Mavenclad® has been approved in 84 countries, including those of the European Union, as well as Australia, Canada and the United States.
- At the 37th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) we presented a total of 39 abstracts, including new data on our investigational Bruton's Tyrosine Kinase (BTK) inhibitor evobrutinib as well new real-world data on Mavenclad®.

Fertility

- To date, over 4 million babies have been born with the help of Gonal-f®.
- Five high-priority fertility manuscripts were recently published in top quartile journals and three global abstracts were presented at ESHRE 2021 (European Society of Human Reproduction and Embryology). This included one oral presentation highlighting real world data effectiveness of assisted reproduction technology for women in France undergoing gonadotropin stimulation, a cohort study using the national health database.
- The Pergoveris® Pen is the first product comprising both recombinant follicle-stimulating hormone (FSH) and recombinant luteinizing hormone (LH) in a ready-to-use liquid version, eliminating the need for mixing. It thus provides a convenient treatment option for women with severe FSH and LH deficiency. Launches around the globe will continue in order to provide patients with access to this therapeutic. The Pergoveris® Pen was successfully launched in India in August 2021 and in Mexico and Ecuador in September 2021. It is now available in 44 countries.

Cardiovascular, Metabolism and Endocrinology

- In the third quarter, our new formulation of Euthyrox® (levothyroxine) for the treatment of hypothyroidism received regulatory approval in Chile, Brunei and Senegal, bringing the total number of countries in which it is approved to 85.
- Glucophage®, containing the active ingredient metformin, is now approved in 67 countries for prediabetes when lifestyle intervention is not enough to control the condition. A new dose strength has been developed for the Glucophage® family specifically dedicated to prediabetes. This quarter, we witnessed the successful submission of Glucophage® XR 850 in Honduras, El Salvador and the Dominican Republic.
- Concor® AM, our fixed-dose combination drug of bisoprolol with amlodipine to treat hypertension, is now registered in 67 countries.
- In the third quarter, the number of new patients using the Easypod® electromechanical injection device for treatment with Saizen® (somatropin) continued to grow, bringing the total number of patients enrolled in Easypod® Connect to 25,326. Saizen® is our main endocrinology product and is indicated for the treatment of growth hormone deficiency in children and adults.
- We continued the rollout of Aluetta®, our new pen for the injection of Saizen®, taking the total number of countries where it is currently available to 26.

Global Healthcare Operations

- Since the start of the Covid-19 pandemic, we have been continuously making every effort to proactively handle the situation and minimize the impact of the pandemic on the supply of our medicines locally and globally through three main levers: the thorough implementation of our business continuity plans across our network, the active management of our stocks, and the assessment of alternative transportation routes to reach our customers and patients.
- The construction of the Biotech Development Center at our site in Corsier-sur-Vevey, Switzerland, is progressing well despite the pandemic. Initiated in January 2020, the construction reached the topping-out milestone in July 2021. This investment of € 250 million will help to sustainably secure capacity and high agility to deliver clinical trial material, contribute to accelerated development timelines of new biological entities, and address the increasing manufacturing complexity of the next generations of biotech compounds in a cost-effective way.

Investment and Growth

- On July 19, we announced plans to invest € 200 million at our global headquarters in Darmstadt by building a new Translational Science Center for the Healthcare business.
- As of 2025, the new Translational Science Center will offer room for more than 500 scientists, who will conduct research in a wide variety of fields ranging from the identification of disease biomarkers to the development of targeted therapies. This investment will give rise to an integrated, flexible-use laboratory building covering a surface area of more than 30,000 m², providing space for in vitro laboratories including a cell bank, a lecture hall, a café, as well as a modern and flexible knowledge environment.

Life Science

- We are a leading life science company, supporting customers worldwide with the products, services and innovations needed to bring life-saving therapies to market. Our teams advance scientific progress by providing tools and services for biopharmaceutical research and manufacturing, as well as laboratory tools and products for academic research and industrial testing.
- In the third quarter, we continued to focus on innovating for our customers by launching more than 4,500 products across the Research Solutions, Process Solutions and Applied Solutions business units, including those launched through our “faucet program” for antibodies, reference materials, chemicals, and nanomaterials.

Research Solutions

- In August, we announced a donation of INR 1.7 million (€ 194,000), over two years, to the Indian Institute of Technology (IIT), Mumbai, India to support the development of clinical tests for Covid-19 disease severity assessment. The funded project supports ongoing Covid-19 multi-omics research, aiding IIT in the early identification of Covid-19 disease severity to facilitate appropriate healthcare management amid the ongoing pandemic.

Process Solutions

- In September, we launched the ProCellics™ Raman Analyzer with Bio4C™ PAT Raman Software, continuing to pave the way to Bioprocessing 4.0. This new time-saving product enables greater upstream process optimization, helps reduce the risk of contamination and batch failures and provides added flexibility to operators.

Applied Solutions

- In September, we signed a partnership with the Federal University of Goiás State, Brazil to create an Innovation and Technology Hub. The partnership will enable the implementation of a prototyping and a training center for rapid diagnostic tests. The new space is the first in Brazil to concentrate molecular biology techniques, electrochemical biosensors and rapid tests by lateral flow immunochromatography in one laboratory.

Electronics

- We are the company behind the companies, advancing digital living. Our primary focus is on the electronics market. Our materials and solutions change how we generate, access, store, process, and display information. In addition, our highly specialized Surface Solutions business makes life more colorful.
- The Electronics business sector comprises three business units: Semiconductor Solutions, Display Solutions and Surface Solutions. Comparing Electronics with a smartphone, Display Solutions represents the user interface, Semiconductor Solutions the intelligence, and Surface Solutions the aesthetics.
- As part of our transformation program Bright Future, we repositioned ourselves and developed into a leading player in the global electronic materials market. At Merck's Capital Markets Day on September 9, we announced the successful conclusion of our five-year Bright Future transformation two years ahead of schedule and introduced our new growth program Level Up. We seek to capture the growth opportunities that come with the significantly accelerating global demand for innovative semiconductor and display materials. This demand is driven by exponential data growth and highly impactful technology trends such as the Internet of Things and 5G. As a result, we upgraded our top-line guidance for the second consecutive time. As we shift from transformation into an execution and growth phase, we are aiming for an organic compound annual growth rate of 3% to 6% between 2021 and 2025.
- On September 29, we announced our plans to invest significantly more than € 3 billion in innovation and capacities until the end of 2025. These investments are an essential part of the new Level Up growth program. With the scope of the program, we are addressing four mutually reinforcing key priorities: Scale, Technology, Portfolio, and Capabilities. We are investing in digital business models and data analysis competencies, as well as expanding our production and innovation capacities and footprints in close proximity to our customers. In addition, we will continue to evaluate external growth options, made possible by potential targeted bolt-on acquisitions. We will also invest further in our people and the capabilities required to enable the future growth trajectory.

Semiconductor Solutions

- Semiconductor Solutions is at the heart of Electronics and is enabling the digital transformation in communications, mobility and healthcare. As almost every electronic device uses one of our products, we are advancing virtually every aspect of digital living. We are developing solutions for smaller, faster and more powerful devices. Semiconductor Solutions is the largest business unit in terms of sales within Electronics and offers materials, delivery systems and services for the semiconductor industry.
- The overall semiconductor market is seeing strong growth with the rising adoption of digital technologies driven by recovering automotive markets and increasing smartphone demand amid wider availability of 5G networks.

- The Delivery Systems & Services business develops and deploys reliable delivery equipment to ensure the safe and responsible handling of gases and liquid materials with the highest quality and safety standards for electronic manufacturers.
- The Semiconductor Materials business supplies products for every major production step in wafer processing, including doping, lithography, patterning, deposition, planarization, etching, and cleaning. Specialty cleans, photoresists, and conductive pastes for semiconductor packaging round off the portfolio. Our business fields are Thin-Film Solutions, Specialty Gases, Planarization, and Patterning Solutions.
- Our Thin Film Solutions business is maintaining momentum and developing new organosilanes for conformal, high-performance Atomic Layer Deposition to obtain films with optimized electrical and physical properties. Additionally, materials with low-dielectric constants are highly desirable for electronic applications. We continue to develop our Plasma-enhanced Chemical Vapor Deposition products for low-dielectric constant applications. We are already qualified at several customers and continue to develop new materials for leading edge nodes in 5nm, 3nm and beyond. We are continuing to drive new investments to build capacity and localize our production in Korea and Taiwan. We also are making good progress in new metal and metal nitride offerings for logic and memory applications. Newly engineered container delivery systems enable these materials for our customers. To support the industry’s need for faster and better processors, servers, and data storage density, we are working on new spin-on dielectric formulations with improved dielectric characteristics.
- Our new etch gas technology program in our Specialty Gases business is developing new chemistries to enable more than 100-layer, single-stack etching for advanced memory devices such as V-NAND (vertical Flash memory). We continued to see new Process of Record wins across our existing portfolio in the first three quarters of 2021, extending to leading-edge nodes and new product introductions.
- Our Planarization business is driving new product development across both slurry and cleans products to support the high demand for new CMP materials and integrations in memory and logic. Our new research and development (R&D) center in Korea, opened in June 2020, is actively supporting key customers drive new product evaluations. Simultaneously, we are increasing R&D investments at our existing labs in Taiwan and the United States to support the increased engagements with our customers. We believe that a golden decade for China’s semiconductor industry has just begun. To support the growing market, we continue to invest in technology and talent to support local requirements in China. In this data-first era, we are actively leveraging a data analytics approach to speed up our cycles of learning and product development.
- Our Patterning business has increased engagements with leading memory and logic customers in the first three quarters of 2021 to support lithography and cleaning needs for advanced leading-edge nodes. We continue to make progress in developing smart patterning solutions such as Directed Self Assembly and Extreme Ultraviolet materials. Our advanced Surface Preparation & Cleans products are enabling new device integration paths in logic and 3D NAND. Continued innovations in thick-film photoresists and related cleaning products support advances in heterogeneous integration — the future of the semiconductor industry.
- Intermolecular is our center for complex material solutions in Electronics, located in San Jose, California. We explore, test and develop combinations of advanced materials for next-generation electronics. Compared to conventional methods, our approach provides significant time savings in the material development process, faster learning cycles, and detailed findings on new material combinations to provide a unique service for customers.

- As part of our Level Up program announced in September, we will significantly invest in the expansion of capacities and will strengthen innovation in all our key regions such as the United States, Korea, Taiwan, China, and Germany to support the growth of the semiconductor industry worldwide. These investments will also accelerate innovation in leading-edge semiconductors for next-generation electronics.

Display Solutions

- Our Display Solutions business unit includes the businesses Liquid Crystals (LC), Organic Light-Emitting Diodes (OLED), Photoresists, and LC Dynamic Glazing (LC Windows). We support our display customers in developing novel display technologies and product concepts for applications, while also addressing new requirements that have emerged from the Covid-19 pandemic. With the proliferation of multiple applications and display trends, the display industry's technological requirements are significantly expanding. We are in a leading position to develop required new display materials and technology concepts to contribute to the diverse display landscape. We are active in the development of a broad range of display materials, including LCs, OLED, Quantum Dots Pixel Color Converters, and Display Patterning Materials (DPM). Our R&D and Supply teams continuously secured qualifications of our LC, OLED and DPM materials in new devices in the first three quarters of 2021.
- In Liquid Crystals, we continue to see very dynamic market developments. Covid-19 has accelerated the market shift towards China and increased competition. We maintained our position as the technology leader with our XtraBright™ products, winning new projects for large-area displays as well as high-resolution mobile devices.
- Our OLED and photoresist materials are used in multiple free-form display products. Our low-temperature processable positive tone photoresists are widely used to pattern on-cell touch sensors. These sensors enable a thinner display structure, which is crucial for foldable devices.
- Our LC Dynamic Glazing (LC Windows) business has received an increasing number of commercial orders for eyrise® i350 invisible privacy glazing in the first three quarters of 2021. The transparent dynamic liquid crystal glass partitions can be switched on demand to create private spaces in public and commercial venues which can be advantageous in post-Covid office environments. Also, in September, AVUS (automobile traffic and training road), celebrated the reopening of its main building which now displays a full eyrise® s350 Solar Shading facade.
- In August, Display Solutions exhibited its product portfolio at IMID 2021, the largest display tradeshow and conference in Korea. Kai Beckmann, Member of the Executive Board of Merck and CEO Electronics, delivered a keynote speech themed "Shifting the Display Paradigm in Electronics".
- In September, our Smart Antenna business participated in SATELLITE 2021, the largest tradeshow in the satellite industry. Along with our development partners ALCAN Systems and NexTenna, we presented our LC-based technology licriOn™, which enables extensive connectivity access, even in remote areas where fast Internet connections are unavailable or unaffordable today.

Surface Solutions

- The core markets for Surface Solutions are automotive coatings, cosmetics, and industrials. We serve these markets through our direct customers with decorative pigment and functional solutions, providing both features and benefits in close cooperation with our direct customers so as to jointly address these important markets.
- In September, we announced the opening of a second production line for our silica-based effect pigments in Gernsheim, Germany. With this investment, Surface Solutions will significantly increase its production capacities for silicon dioxide flakes, a special substrate for Merck’s Colorstream® and Xirona® product ranges for automotive coatings and color cosmetics. These pigments provide a unique color shift depending on the angle of observation. As this investment creates additional production capacity in existing product lines, we are now in the qualification phase with several existing customers which will be completed in due course. The additional capacity also provides flexibility to introduce further products in this exciting area.

Course of Business and Economic Position

Merck

Overview – Q3 2021

- Group net sales rise by 11.8% to € 4,973 million (Q3 2020: € 4,447 million)
- Organic sales growth of 10.9%; positive foreign exchange effect of 1.0%
- Group EBITDA pre down –8.7% to € 1,552 million (Q3 2020: € 1,701 million); EBITDA pre margin of 31.2% (Q3 2020: 38.2%); income of € 365 million in the year-earlier period from the reversal of a provision for potential damage payments
- Net financial debt lowered to € 9.3 billion in the first nine months of 2021 (December 31, 2020: € 10.8 billion)

Merck Group

Key figures

€ million	**Q3 2021**	Q3 2020	Change	**Jan.–Sept. 2021**	Jan.–Sept. 2020	Change
Net sales	4,973	4,447	11.8%	14,474	12,936	11.9%
Operating result (EBIT)[1]	1,047	1,167	–10.2%	3,140	2,374	32.3%
Margin (% of net sales)[1]	21.1%	26.2%		21.7%	18.3%	
EBITDA[1]	1,495	1,619	–7.7%	4,433	3,815	16.2%
Margin (% of net sales)[1]	30.1%	36.4%		30.6%	29.5%	
EBITDA pre[1]	1,552	1,701	–8.7%	4,639	3,956	17.3%
Margin (% of net sales)[1]	31.2%	38.2%		32.0%	30.6%	
Profit after tax	764	806	–5.3%	2,258	1,553	45.4%
Earnings per share (€)	1.75	1.85	–5.4%	5.18	3.57	45.1%
Earnings per share pre (€)[1]	2.24	2.34	–4.3%	6.66	5.14	29.6%
Operating cash flow	1,467	1,170	25.3%	3,571	2,189	63.1%

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

Development of net sales and results of operations

In the third quarter of 2021, Group sales amounted to € 4,973 million (Q3 2020: € 4,447 million). This represented a year-on-year increase of around € 526 million or 11.8%. Group organic sales growth, to which all business sectors contributed, totaled € 484 million or 10.9%. Positive foreign exchange effects increased net sales by € 43 million or 1.0% and were thus insignificant in the third quarter of 2021.

Net sales of the Life Science business sector increased by € 339 million or 17.7% to € 2,248 million in the third quarter of 2021, (Q3 2020: € 1,910 million). This increase was due to double-digit organic growth of 17.1% and a slightly positive foreign exchange effect of 0.6%. Accounting for a 45% (Q3 2020: 43%) share of Group sales, Life Science was the Group's largest business sector in terms of sales. In the third quarter of 2021, the Healthcare business sector increased sales by 5.1% to € 1,788 million (Q3 2020: € 1,702 million). Organically, Healthcare sales rose by 4.1%. Foreign exchange had a positive effect of 1.0%. Healthcare's share of Group net sales declined to 36% (Q3 2020: 38%). The 12.1% increase in sales of the Electronics business sector to € 937 million (Q3 2020: € 836 million) was due mainly to double-digit organic growth of 10.3%. The percentage contribution of Electronics to Group net sales amounted to 19% (Q3 2020: 19%).

Merck Group

Net sales by business sector

€ million	Q3 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2020	Share
Healthcare	1,788	36%	4.1%	1.0%	–0.1%	5.1%	1,702	38%
Life Science	2,248	45%	17.1%	0.6%	–	17.7%	1,910	43%
Electronics	937	19%	10.3%	1.7%	–	12.1%	836	19%
Merck Group	**4,973**	**100%**	**10.9%**	**1.0%**	**–**	**11.8%**	**4,447**	**100%**

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

In the third quarter of 2021, the regional sales development of the Merck Group was as follows:

Merck Group

Net sales by region

€ million	Q3 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2020	Share
Europe	1,417	29%	15.6%	0.1%	–	15.7%	1,225	28%
North America	1,346	27%	9.2%	–0.6%	–	8.5%	1,240	28%
Asia-Pacific (APAC)	1,808	36%	9.1%	2.5%	–0.1%	11.5%	1,622	36%
Latin America	254	5%	10.3%	3.4%	–	13.7%	223	5%
Middle East and Africa (MEA)	147	3%	6.5%	1.2%	–	7.7%	136	3%
Merck Group	**4,973**	**100%**	**10.9%**	**1.0%**	**–**	**11.8%**	**4,447**	**100%**

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

In the first nine months of 2021, net sales of the Merck Group increased by € 1,538 million or 11.9% to € 14,474 million (January-September 2020: € 12,936 million). All business sectors contributed to this positive sales development. The sales growth was due in particular to the organic increases in Life Science (23.9%) and Healthcare (9.9%). Negative foreign exchange effects of –3.1% were primarily due to the U.S. dollar and the Japanese yen. Net sales of the business sectors in the period from January to September 2021 developed as follows:

Merck Group

Net sales by business sector

€ million	Jan.–Sept. 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2020	Share
Healthcare	5,214	36%	9.9%	–3.0%	–0.5%	6.4%	4,901	38%
Life Science	6,604	46%	23.9%	–3.5%	–	20.4%	5,485	42%
Electronics	2,655	18%	6.7%	–2.6%	–	4.1%	2,550	20%
Merck Group	**14,474**	**100%**	**15.2%**	**–3.1%**	**–0.2%**	**11.9%**	**12,936**	**100%**

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

In the first nine months of 2021, Group sales by region were as follows:

Merck Group

Net sales by region

€ million	Jan.–Sept. 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2020	Share
Europe	4,147	29%	15.0%	–1.0%	–0.5%	13.5%	3,653	28%
North America	3,989	27%	21.4%	–6.8%	–	14.5%	3,484	27%
Asia-Pacific (APAC)	5,172	36%	11.6%	–1.4%	–0.1%	10.0%	4,700	37%
Latin America	727	5%	15.0%	–7.8%	–	7.2%	679	5%
Middle East and Africa (MEA)	438	3%	6.7%	–2.7%	–	4.0%	421	3%
Merck Group	**14,474**	**100%**	**15.2%**	**–3.1%**	**–0.2%**	**11.9%**	**12,936**	**100%**

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

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

Merck Group

Consolidated Income Statement1

€ million	Q3 2021	Q3 2020	Change	Jan.–Sept. 2021	Jan.–Sept. 2020	Change
Net sales	**4,973**	**4,447**	**11.8%**	**14,474**	**12,936**	**11.9%**
Cost of sales	–1,859	–1,776	4.7%	–5,392	–5,040	7.0%
Gross profit	**3,114**	**2,671**	**16.6%**	**9,081**	**7,896**	**15.0%**
Marketing and selling expenses	–1,066	–992	7.5%	–3,109	–3,085	0.8%
Administration expenses	–310	–280	10.8%	–890	–867	2.7%
Research and development costs	–660	–531	24.2%	–1,818	–1,630	11.5%
Impairment losses and reversals of impairment losses on financial assets (net)	1	–1	> 100.0%	–5	–	–
Other operating expenses and income	–31	299	> 100.0%	–119	60	> 100.0%
Operating result (EBIT)[1]	**1,047**	**1,167**	**–10.2%**	**3,140**	**2,374**	**32.3%**
Financial result	–54	–102	–46.7%	–208	–302	–31.2%
Profit before income tax	**993**	**1,065**	**–6.7%**	**2,932**	**2,071**	**41.5%**
Income tax	–229	–258	–11.2%	–673	–518	30.0%
Profit after tax	**764**	**806**	**–5.3%**	**2,258**	**1,553**	**45.4%**
Non-controlling interests	–3	–1	> 100.0%	–6	–2	> 100.0%
Net income	**761**	**805**	**–5.6%**	**2,253**	**1,551**	**45.2%**

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

In the third quarter of 2021, the positive development of Group sales led to an increase of 16.6% in gross profit to € 3,114 million (Q3 2020: € 2,671 million). The resulting gross margin, i.e. gross profit as a percentage of sales, increased by 2.5 percentage points to 62.6% (Q3 2020: 60.1%).

Compared with the year-earlier quarter, Group research and development costs increased by 24.2 % to € 660 million (Q3 2020: € 531 million) and were mainly attributable to the Healthcare business sector. Consequently, in the third quarter of 2021, the Group research spending ratio (research and development costs as a percentage of net sales) was 13.3% (Q3 2020: 11.9%). Accounting for a 75% (Q3 2020: 73%) share[1] of research and development expenses of all business sectors, Healthcare is the most research-intensive business sector of Merck.

Other operating expenses and income (net) showed an expense balance of € –31 million in the third quarter of 2021; in the year-earlier quarter this item showed an income balance of € 299 million. This significant change was due largely to income of € 365 million from the reversal in the year-earlier quarter of a provision that had originally been set up for potential damage payments (see explanations under "Healthcare").

An increase in provisions for obligations under long-term variable compensation programs (Merck Long-Term Incentive Plan) had an adverse effect on the operating result in the third quarter of 2021. The rise in the intrinsic value of the Merck Share Units was reflected in the respective functional costs depending on the area of activity of the plan beneficiaries.

The financial result was € –54 million in the third quarter of 2020 (Q3 2020: € –102 million). This strong improvement was mainly the result of lower interest expenses as well as the development of the time value of Merck Share Units from the Merck Long-Term Incentive Plan and recognized in the financial result.

Income tax expenses of € 229 million (Q3 2020: € 258 million) led to an effective tax rate of 23.1% (Q3 2020: 24.3%).

Net income, i.e. profit after tax attributable to Merck KGaA shareholders, decreased by –5.6% to € 761 million (Q3 2020: € 805 million), yielding earnings per share of € 1.75 in the third quarter of 2021 (Q3 2020: € 1.85).

[1] Not included: Research and development costs of € 14 million allocated to Corporate and Other.

The following table presents the composition of EBITDA pre in the third quarter of 2021 compared with the year-earlier quarter. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Merck Group

Reconciliation EBITDA pre[1]

	Q3 2021			Q3 2020			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**4,973**	**–**	**4,973**	**4,447**	**–**	**4,447**	**11.8%**
Cost of sales	–1,859	9	–1,850	–1,776	21	–1,755	5.4%
Gross profit	**3,114**	**9**	**3,123**	**2,671**	**21**	**2,692**	**16.0%**
Marketing and selling expenses	–1,066	4	–1,062	–992	6	–986	7.7%
Administration expenses	–310	29	–281	–280	18	–262	7.3%
Research and development costs	–660	–	–659	–531	1	–530	24.4%
Impairment losses and reversals of impairment losses on financial assets (net)	1	–	1	–1	–	–1	> 100.0%
Other operating income and expenses	–31	34	2	299	36	335	–99.3%
Operating result (EBIT)[1]	**1,047**			**1,167**			
Depreciation/amortization/impairment losses/reversals of impairment losses	447	–19	429	453	–1	452	–5.2%
EBITDA[1]	**1,495**			**1,619**			
Restructuring expenses	22	–22	–	33	–33	–	
Integration expenses/IT expenses	24	–24	–	26	–26	–	
Gains (–)/losses (+) on the divestment of businesses	6	–6	–	19	–19	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	5	–5	–	3	–3	–	
EBITDA pre[1]	**1,552**	**–**	**1,552**	**1,701**	**–**	**1,701**	**–8.7%**
of which: organic growth[1]							–10.9%
of which: exchange rate effects							2.2%
of which: acquisitions/divestments							–0.1%

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

EBITDA pre, the most important financial indicator used to steer operating business, fell by –8.7% to € 1,552 million in the third quarter of 2021 (Q3 2020: € 1,701 million). Organically, EBITDA pre declined by –10.9%. Here it should be noted that the comparable year-earlier figure included income from the reversal of a provision for potential damage payments (€ 365 million). Positive foreign exchange effects of 2.2% increased EBITDA pre. Relative to net sales, the EBITDA pre margin was 31.2% in the third quarter of 2021 (Q3 2020: 38.2%). Earnings per share pre (earnings per share after net of tax effect of adjustments and amortization of purchased intangible assets) decreased by –4.3% to € 2.24 (Q3 2020: € 2.34).

The following table presents the composition of EBITDA pre in the first nine months of 2021 in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Merck Group

Reconciliation EBITDA pre[1]

	Jan.–Sept. 2021			Jan.–Sept. 2020			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**14,474**	**–**	**14,474**	**12,936**	**–**	**12,936**	**11.9%**
Cost of sales	–5,392	21	–5,372	–5,040	44	–4,996	7.5%
Gross profit	**9,081**	**21**	**9,102**	**7,896**	**44**	**7,940**	**14.6%**
Marketing and selling expenses	–3,109	13	–3,096	–3,085	18	–3,067	0.9%
Administration expenses	–890	70	–820	–867	67	–799	2.6%
Research and development costs	–1,818	3	–1,815	–1,630	–1	–1,631	11.3%
Impairment losses and reversals of impairment losses on financial assets (net)	–5	–	–5	–	–	–	–
Other operating income and expenses	–119	129	10	60	127	187	–94.7%
Operating result (EBIT)[1]	**3,140**			**2,374**			
Depreciation/amortization/impairment losses/reversals of impairment losses	1,294	–30	1,264	1,441	–114	1,326	–4.7%
EBITDA[1]	**4,433**			**3,815**			
Restructuring expenses	61	–61	–	69	–69	–	
Integration expenses/IT expenses	62	–62	–	85	–85	–	
Gains (–)/losses (+) on the divestment of businesses	88	–88	–	–8	8	–	
Acquisition-related adjustments	–18	18	–	–11	11	–	
Other adjustments	13	–13	–	7	–7	–	
EBITDA pre[1]	**4,639**	**–**	**4,639**	**3,956**	**–**	**3,956**	**17.3%**
of which: organic growth[1]							20.3%
of which: exchange rate effects							–2.9%
of which: acquisitions/divestments							–0.1%

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

In the first nine months of 2021, EBITDA pre of the Merck Group increased by 17.3% to € 4,639 million (January–September 2020: € 3,956 million). Organic growth amounted to 20.3% and negative foreign exchange effects adversely affected EBITDA pre by –2.9%. In the first nine months of 2021, earnings per share pre increased by 29.6% to € 6.66 (January–September 2020: € 5.14).

Net assets and financial position

Merck Group

Balance sheet structure

	September 30, 2021		December 31, 2020		Change	
	€ million	in %	€ million	in %	€ million	in %
Non-current assets	**33,521**	**76.5%**	**32,516**	**77.8%**	**1,005**	**3.1%**
thereof:						
Goodwill	16,670		15,959		711	
Other intangible assets	7,628		7,653		–25	
Property, plant and equipment	6,761		6,421		340	
Other non-current assets	2,462		2,483		–21	
Current assets	**10,315**	**23.5%**	**9,280**	**22.2%**	**1,035**	**11.2%**
thereof:						
Inventories	3,760		3,294		466	
Trade and other current receivables	3,753		3,221		532	
Other current financial assets	142		125		17	
Other current assets	1,138		1,286		–148	
Cash and cash equivalents	1,523		1,355		168	
Total assets	**43,836**	**100.0%**	**41,796**	**100.0%**	**2,040**	**4.9%**
Equity	**20,679**	**47.2%**	**17,017**	**40.7%**	**3,662**	**21.5%**
Non-current liabilities	**13,364**	**30.5%**	**15,548**	**37.2%**	**–2,184**	**–14.0%**
thereof:						
Non-current provisions for employee benefits	3,388		3,880		–492	
Other non-current provisions	270		281		–10	
Non-current financial debt	8,195		9,785		–1,590	
Other non-current liabilities	1,511		1,603		–92	
Current liabilities	**9,793**	**22.3%**	**9,231**	**22.1%**	**562**	**6.1%**
thereof:						
Current provisions	710		613		97	
Current financial debt	2,770		2,357		413	
Trade and other current payables/refund liabilities	2,871		2,434		437	
Other current liabilities	3,443		3,828		–385	
Total equity and liabilities	**43,836**	**100.0%**	**41,796**	**100.0%**	**2,040**	**4.9%**

In the first nine months of 2021, total assets of the Merck Group rose by 4.9% to € 43,836 million (December 31, 2020: € 41,796 million). The increase was attributable to both the successful operating business performance as well as to exchange rate changes.

In the first nine months of 2021, equity showed a double-digit increase, rising by 21.5% to € 20,679 million as of September 30, 2021 (December 31, 2020: € 17,017 million). Consequently, the equity ratio improved to 47.2% (December 31, 2020: 40.7%). 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 and the development of net financial debt were as follows:

Merck Group

Net financial debt[1]

	Sept. 30, 2021	December 31, 2020	Change	
	€ million	€ million	€ million	in %
Bonds and commercial paper	9,309	9,642	–333	–3.5%
Bank loans	67	1,085	–1,018	–93.8%
Liabilities to related parties	1,089	817	271	33.2%
Loans from third parties and other financial liabilities	55	58	–3	–4.4%
Liabilities from derivatives (financial transactions)	33	102	–69	–67.5%
Lease liabilities	411	438	–27	–6.1%
Financial debt	**10,965**	**12,142**	**–1,178**	**–9.7%**
less:				
Cash and cash equivalents	1,523	1,355	168	12.4%
Current financial assets[2]	121	28	93	> 100.0%
Net financial debt[1]	**9,320**	**10,758**	**–1,438**	**–13.4%**

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

Merck Group

Reconciliation of net financial debt[1]

€ million	**2021**	2020
January 1	**10,758**	**12,363**
Operating cash flow	–3,571	–2,189
Payments for investments in intangible assets[2]	287	101
Payments from the disposal of intangible assets[2]	–35	–17
Payments for investments in property, plant and equipment[2]	868	777
Payments from the disposal of property, plant and equipment[2]	–8	–8
Acquisitions[2]	4	7
Payments for the acquisition of non-financial assets[2]	–1	–49
Payments from other divestments[2]	–	500
Dividend payments/profit withdrawals[2]	756	686
Currency translation difference	137	–88
Other	125	–1
September 30	**9,320**	**12,082**

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

Operating cash flow, which as of fiscal 2021 replaced business free cash flow as one of the three key performance indicators – in addition to net sales and EBITDA pre – developed as follows:

Merck Group

Operating cash flow

€ million	**Q3 2021**	Q3 2020	Change	**Jan.–Sept. 2021**	Jan.–Sept. 2020	Change
EBITDA pre[1]	**1,552**	**1,701**	–8.7%	**4,639**	**3,956**	17.3%
Adjustments[1]	–57	–81	–29.7%	–205	–142	44.9%
Financial result[2]	–54	–102	–46.7%	–208	–302	–31.2%
Income tax[2]	–229	–258	–11.2%	–673	–518	30.0%
Changes in other financial assets recognized in income	–4	–1	> 100.0%	–7	1	> 100.0%
Changes in working capital[1]	–82	31	> 100.0%	–338	–437	–22.7%
of which: changes in inventories[3]	–160	51	> 100.0%	–384	–195	96.9%
of which: changes in trade accounts receivable[3]	–54	–75	–28.3%	–433	–254	70.3%
of which: changes in trade accounts payable/refund liabilities[3]	131	54	> 100.0%	479	12	> 100.0%
Changes in provisions[3]	191	–256	> 100.0%	246	–294	> 100.0%
Changes in other assets and liabilities[3]	128	114	12.1%	72	–75	> 100.0%
Neutralization of gains/losses on disposals of fixed assets and other disposals[3]	–8	11	> 100.0%	–32	–28	14.0%
Other non-cash income and expenses[3]	30	13	> 100.0%	78	28	> 100.0%
Operating cash flow	**1,467**	**1,170**	**25.3%**	**3,571**	**2,189**	**63.1%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] According to the Consolidated Income Statement.
[3] According to the Consolidated Cash Flow Statement.

Healthcare

Healthcare
Key figures

€ million	Q3 2021	Q3 2020	Change	Jan.–Sept. 2021	Jan.–Sept. 2020	Change
Net sales	1,788	1,702	5.1%	5,214	4,901	6.4%
Operating result (EBIT)[1]	453	807	–43.9%	1,399	1,499	–6.7%
Margin (% of net sales)[1]	25.4%	47.5%		26.8%	30.6%	
EBITDA[1]	532	892	–40.4%	1,627	1,752	–7.1%
Margin (% of net sales)[1]	29.7%	52.4%		31.2%	35.7%	
EBITDA pre[1]	541	896	–39.6%	1,655	1,742	–5.0%
Margin (% of net sales)[1]	30.3%	52.7%		31.7%	35.5%	

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

Development of net sales and results of operations

In the third quarter of 2021, the Healthcare business sector generated organic sales growth of 4.1%. Including positive foreign exchange effects of 1.0%, net sales increased by a total of € 86 million or 5.1% to € 1,788 million (Q3 2020: € 1,702 million). The positive exchange rate effect was particularly attributable to the favorable development of the Chinese renminbi, which was offset by the decline in the value of the Japanese yen and the Turkish lira against the euro.

Sales of the key product lines and products developed in the third quarter of 2021 as follows:

Healthcare
Development of net sales by key product lines and products

€ million	Q3 2021	Share	Organic growth[1]	Exchange rate effects	Total change	Q2 2020	Share
Oncology	**349**	**19%**	**26.4%**	**0.4%**	**26.8%**	**275**	**16%**
thereof: Erbitux®	233	13%	6.5%	0.9%	7.4%	217	13%
thereof: Bavencio®	104	6%	> 100.0%	–2.0%	> 100.0%	42	2%
Neurology & Immunology	**431**	**24%**	**0.9%**	**–0.1%**	**0.8%**	**427**	**25%**
thereof: Rebif®	234	13%	–16.2%	–0.2%	–16.4%	279	16%
thereof: Mavenclad®	197	11%	33.1%	0.1%	33.2%	148	9%
Fertility	**339**	**19%**	**7.2%**	**1.0%**	**8.2%**	**314**	**19%**
thereof: Gonal-f®	191	11%	–1.4%	0.7%	–0.7%	192	11%
Cardiovascular, Metabolism and Endocrinology	**635**	**36%**	**–3.4%**	**1.9%**	**–1.5%**	**645**	**38%**
thereof: Glucophage®	209	12%	–10.3%	2.7%	–7.5%	226	13%
thereof: Concor®	133	7%	3.0%	1.5%	4.4%	127	7%
thereof: Euthyrox®	123	7%	4.6%	1.7%	6.3%	115	7%
thereof: Saizen®	61	3%	2.4%	1.0%	3.3%	59	3%
Other	**33**	**2%**				**40**	**2%**
Healthcare	**1,788**	**100%**	**4.1%**	**1.0%**	**5.1%**	**1,702**	**100%**

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

The oncology drug Erbitux® (cetuximab) generated organic sales growth of 6.5%. Including positive foreign exchange effects of 0.9%, net sales increased by a total of 7.4% to € 233 million in the third quarter of 2021 (Q3 2020: € 217 million). The Asia-Pacific region delivered organic growth of 9.2%, posting sales of € 101 million (Q3 2020: € 91 million). This was attributable to the lower comparative base of the year-earlier quarter due to the pandemic on the one hand and to stronger demand in Japan on the other hand. In Europe, sales grew amid an organic increase of 3.9% to € 104 million (Q3 2020: € 100 million).

Within Immuno-Oncology, sales of the oncology drug Bavencio® (avelumab) more than doubled to € 104 million (Q3 2020: € 42 million) amid slightly negative foreign exchange effects. All regions contributed to this highly favorable development. This sales growth was mainly driven by the approvals in June 2020 in the United States and in the first quarter of 2021 in Europe and Japan as a first-line maintenance treatment of patients with locally advanced or metastatic urothelial carcinoma (UC).

Mavenclad®, for the oral short-course treatment of highly active relapsing multiple sclerosis (MS), generated organic sales growth of 33.1% in the third quarter of 2021. Net sales thus rose to € 197 million (Q3 2020: € 148 million). In North America, sales increased by 33.3% to € 99 million (Q3 2020: € 74 million). The positive growth trend was also confirmed in Europe, where sales increased by 32.2% to € 79 million (Q3 2020: € 60 million).

Healthcare

Product sales and organic growth[1] of Rebif®, Glucophage® and Erbitux® by region – Q3 2021

		Total	Europe	North America	Asia-Pacific (APAC)	Latin America	Middle East and Africa (MEA)
Rebif®	€ million	234	69	143	2	6	13
	Organic growth[1]	–16.2%	–8.6%	–19.1%	–12.3%	–41.9%	0.2%
	Share	100%	30%	61%	1%	3%	5%
Glucophage®	€ million	209	31	–	121	37	20
	Organic growth[1]	–10.3%	8.7%	–	–18.9%	18.9%	–18.6%
	Share	100%	15%	–	58%	17%	10%
Erbitux®	€ million	233	104	–	101	16	12
	Organic growth[1]	6.5%	3.9%	–	9.2%	–1.3%	15.6%
	Share	100%	44%	–	44%	7%	5%

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

The medicine Rebif®, which is indicated for the treatment of relapsing multiple sclerosis, saw an organic sales decline of –16.2%. Consequently, global net sales totaled € 234 million (Q3 2020: € 279 million) in the third quarter of 2021. In North America, the largest sales market for Rebif®, the organic sales decline of –19.1% was due not only to the continued difficult competitive situation in the interferon market and competition from oral dosage forms and high-efficacy MS therapies, but also to the relatively strong year-earlier quarter. The corresponding sales in the region amounted to € 143 million (Q3 2020: € 178 million). In Europe, sales declined organically by –8.6% to € 69 million (Q3 2020: € 76 million) due to continued competitive pressure. The decrease in sales in the remaining regions to € 21 million (Q3 2020: € 25 million) was primarily attributable to the organic development in Latin America.

The Cardiovascular, Metabolism and Endocrinology franchise, which commercializes products to treat cardio-vascular diseases, thyroid disorders, diabetes, and growth disorders, among other things, declined organically by –3.4%. Including positive foreign exchange effects of 1.9%, net sales of the franchise amounted to € 635 million (Q3 2020: € 645 million). At € 209 million, sales of the diabetes medicine Glucophage® were below the year-earlier quarter (Q3 2020: € 226 million). The organic decline of –10.3% was primarily attributable to the volume-based procurement regulation that took effect in China in 2020. By contrast, organic sales of the products Concor®, Euthyrox® and Saizen® developed positively in the third quarter of 2021, partially compensating for the decrease in sales of Glucophage®.

The Fertility franchise delivered organic sales growth of 7.2%. Including positive foreign exchange effects of 1.0%, global net sales increased to € 339 million (Q3 2020: € 314 million). The positive development was due to strong demand for our fertility products. At € 191 million, sales of Gonal-f®, the leading recombinant hormone for the treatment of infertility, stagnated at the year-earlier level (Q3 2020: € 192 million). However, sales declines in North America, which were primarily attributable to a disproportionately strong year-earlier quarter resulting from Covid-19-related rebound effects, were offset by sales increases in the other regions.

Net sales of the business sector by region developed in the third quarter of 2021 as follows:

Healthcare

Net sales by region

€ million	**Q3 2021**	**Share**	**Organic growth[1]**	**Exchange rate effects**	**Acquisitions/ divestments**	**Total change**	Q3 2020	Share
Europe	562	31%	6.6%	–0.5%	–	6.1%	529	31%
North America	412	23%	–0.4%	–0.4%	–	–0.8%	416	25%
Asia-Pacific (APAC)	528	30%	4.2%	3.1%	–0.4%	7.0%	494	29%
Latin America	174	10%	8.0%	3.5%	–	11.5%	156	9%
Middle East and Africa (MEA)	111	6%	3.9%	0.5%	–	4.4%	107	6%
Healthcare	**1,788**	**100%**	**4.1%**	**1.0%**	**–0.1%**	**5.1%**	**1,702**	**100%**

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

In the first nine months of 2021, the Healthcare business sector recorded net sales of € 5,214 million (January-September 2020: € 4,901 million). This increase reflected favorable organic growth of 9.9% and negative foreign exchange effects of –3.0%. Specifically, this positive development was attributable to the organic growth of Gonal-f® (26.2%), Mavenclad® (46.7%), Bavencio® (> 100.0%), and Erbitux® (17.1%). With sales increasing to € 501 million (January-September 2020: € 353 million), Mavenclad® significantly overcompensated for the organic decline in sales of Rebif®, which was due to the difficult competitive situation. In the first nine months of 2021, Rebif® generated sales of € 708 million (January-September 2020: € 864 million). Sales of the oncology drug Bavencio® more than doubled to € 252 million (January-September 2020: € 105 million). In the first nine months of 2021, Erbitux® sales rose to € 726 million (January-September 2020: € 636 million). This was primarily attributable to the positive development in the Asia-Pacific region as well as the temporary contract manufacturing for Eli Lilly and Company (USA) in the second quarter of 2021. The Fertility franchise not only benefited from strong demand in all regions, but also continued the recovery trend that started in the second half of 2020. The diabetes medicine Glucophage® saw an organic sales decline of –5.3 %, which was primarily due to the volume-based procurement regulation that took effect in China in 2020. Net sales amounted to € 639 million (January-September 2020: € 686 million).

Sales of key product lines and products developed in the first nine months of 2021 as follows:

Healthcare

Development of net sales by key product lines and products

€ million	Jan.–Sept. 2021	Share	Organic growth[1]	Exchange rate effects	Total change	Jan.–Sept. 2020	Share
Oncology	**1,013**	**20%**	**31.7%**	**–3.8%**	**27.9%**	**793**	**16%**
thereof: Erbitux®	726	14%	17.1%	–2.9%	14.1%	636	13%
thereof: Bavencio®	252	5%	> 100.0%	–10.0%	> 100.0%	105	2%
Neurology & Immunology	**1,210**	**23%**	**3.5%**	**–4.1%**	**–0.6%**	**1,217**	**25%**
thereof: Rebif®	708	14%	–14.2%	–3.8%	–18.0%	864	18%
thereof: Mavenclad®	501	10%	46.7%	–4.8%	41.9%	353	7%
Fertility	**1,003**	**19%**	**32.0%**	**–3.6%**	**28.4%**	**781**	**16%**
thereof: Gonal-f®	577	11%	26.2%	–3.8%	22.4%	471	10%
Cardiovascular, Metabolism and Endocrinology	**1,878**	**36%**	**–2.3%**	**–2.0%**	**–4.4%**	**1,963**	**40%**
thereof: Glucophage®	639	12%	–5.3%	–1.5%	–6.8%	686	14%
thereof: Concor®	386	7%	–2.7%	–2.6%	–5.3%	407	8%
thereof: Euthyrox®	342	7%	1.1%	–1.7%	–0.6%	344	7%
thereof: Saizen®	184	4%	6.7%	–2.6%	4.1%	177	4%
Other	**110**	**2%**				**146**	**3%**
Healthcare	**5,214**	**100%**	**9.9%**	**–3.0%**	**6.4%**	**4,901**	**100%**

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

In the first nine months of 2021, net sales by region developed as follows:

Healthcare

Net sales by region

€ million	Jan.–Sept. 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2020	Share
Europe	1,663	32%	6.9%	–2.0%	–1.1%	3.7%	1,603	33%
North America	1,242	24%	17.5%	–6.2%	–	11.3%	1,116	23%
Asia-Pacific (APAC)	1,474	28%	7.3%	–0.1%	–0.3%	6.9%	1,378	28%
Latin America	495	9%	11.0%	–7.1%	–	3.9%	476	10%
Middle East and Africa (MEA)	340	7%	7.6%	–3.6%	–	4.0%	327	6%
Healthcare	**5,214**	**100%**	**9.9%**	**–3.0%**	**–0.5%**	**6.4%**	**4,901**	**100%**

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

The following table presents the composition of EBITDA pre for the third quarter of 2021 in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Healthcare

Reconciliation EBITDA pre[1]

	Q3 2021			Q3 2020			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**1,788**	**–**	**1,788**	**1,702**	**–**	**1,702**	**5.1%**
Cost of sales	–428	–1	–429	–427	–	–427	0.3%
Gross profit	**1,360**	**–1**	**1,359**	**1,274**	**–**	**1,274**	**6.7%**
Marketing and selling expenses	–386	–	–386	–382	4	–379	1.9%
Administration expenses	–79	2	–77	–75	–	–75	2.6%
Research and development costs	–486	–	–486	–378	–	–378	28.5%
Impairment losses and reversals of impairment losses on financial assets (net)	–	–	–	–1	–	–1	–
Other operating income and expenses	44	8	52	370	–	370	–86.0%
Operating result (EBIT)[1]	**453**			**807**			
Depreciation/amortization/impairment losses/reversals of impairment losses	78	–	78	84	–	84	–7.0%
EBITDA[1]	**532**			**892**			
Restructuring expenses	–	–	–	5	–5	–	
Integration expenses/IT expenses	1	–1	–	–	–	–	
Gains (–)/losses (+) on the divestment of businesses	8	–8	–	–1	1	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**541**	**–**	**541**	**896**	**–**	**896**	**–39.6%**
of which: organic growth[1]							–42.0%
of which: exchange rate effects							2.4%
of which: acquisitions/divestments							–

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

In the third quarter of 2021, adjusted gross profit amounted to € 1,359 million (Q3 2020: € 1,274 million). This resulted in a gross margin of 76.0% (Q3 2020: 74.9%). Adjusted marketing and selling expenses rose in comparison with the year-earlier quarter by 1.9% to € 386 million (Q3 2020: € 379 million). Despite slightly higher royalty fees, the lower spending level of the year-earlier quarter due to the Covid-19 pandemic was maintained. The increase in research and development costs to € 486 million (Q3 2020: € 378 million) was attributable to two effects: firstly, the lower costs in the year-earlier quarter, which reflected the comparatively low investment requirements at that time and secondly, provisions set up in the reporting period for subsequent costs from winding down the bintrafusp alfa program and terminating the partnership with GlaxoSmithKline plc (GSK) by mutual agreement. The decision was based on the clinical trial data generated to date, including the previously reported results of the INTR@PID Lung 037 study, which did not replicate the encouraging data observed in earlier studies. The decline in the income balance of other operating expenses and income (net) to € 52 million (Q3 2020: € 370 million) was largely due to income of € 365 million from the reversal in the year-earlier quarter of a provision for potential damage payments in connection with the patent dispute with Biogen Inc., USA, (Biogen). After eliminating adjustments, amortization and depreciation, EBITDA decreased by –39.6% to € 541 million (Q3 2020: € 896 million) due to income from the aforementioned reversal of a provision included in the year-earlier quarter. Organically, the figure declined by –42.0% amid positive foreign exchange effects of 2.4%. This resulted in an EBITDA pre margin of 30.3% (Q3 2020: 52.7%).

The following table presents the composition of EBITDA pre in the first nine months of 2021 in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Healthcare

Reconciliation EBITDA pre[1]

	Jan.–Sept. 2021			Jan.–Sept. 2020			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**5,214**	**–**	**5,214**	**4,901**	**–**	**4,901**	**6.4%**
Cost of sales	–1,236	–1	–1,237	–1,185	–	–1,185	4.4%
Gross profit	**3,978**	**–1**	**3,977**	**3,716**	**–**	**3,716**	**7.0%**
Marketing and selling expenses	–1,147	7	–1,140	–1,215	12	–1,203	–5.2%
Administration expenses	–229	7	–223	–236	3	–233	–4.2%
Research and development costs	–1,317	2	–1,315	–1,161	–	–1,161	13.3%
Impairment losses and reversals of impairment losses on financial assets (net)	1	–	1	1	–	1	34.9%
Other operating income and expenses	113	16	129	394	–23	370	–65.2%
Operating result (EBIT)[1]	**1,399**			**1,499**			
Depreciation/amortization/impairment losses/reversals of impairment losses	229	–3	226	253	–2	251	–10.1%
EBITDA[1]	**1,627**			**1,752**			
Restructuring expenses	10	–10	–	19	–19	–	
Integration expenses/IT expenses	5	–5	–	2	–2	–	
Gains (–)/losses (+) on the divestment of businesses	13	–13	–	–31	31	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**1,655**	**–**	**1,655**	**1,742**	**–**	**1,742**	**–5.0%**
of which: organic growth[1]							1.3%
of which: exchange rate effects							–6.3%
of which: acquisitions/divestments							–0.1%

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

In the first nine months of 2021, Healthcare recorded a decrease in EBITDA pre of –5.0% to € 1,655 million (January–September 2020: € 1,742 million). Organic growth of 1.3% was offset by negative foreign exchange effects of –6.3%. The relatively low organic growth (1.3%) compared with the year-earlier period (34.4%) was largely due to income of € 365 million from the reversal in the year-earlier quarter of a provision for potential damage payments in connection with the patent dispute with Biogen. The EBITDA pre margin decreased by around four percentage points to 31.7% (January-September 2020: 35.5%).

Life Science

Life Science

Key figures

€ million	**Q3 2021**	Q3 2020	Change	**Jan.–Sept. 2021**	Jan.–Sept. 2020	Change
Net sales	2,248	1,910	17.7%	6,604	5,485	20.4%
Operating result (EBIT)[1]	614	417	47.3%	1,851	1,148	61.3%
Margin (% of net sales)[1]	27.3%	21.8%		28.0%	20.9%	
EBITDA[1]	806	612	31.8%	2,420	1,737	39.3%
Margin (% of net sales)[1]	35.8%	32.0%		36.6%	31.7%	
EBITDA pre[1]	824	630	30.7%	2,446	1,752	39.6%
Margin (% of net sales)[1]	36.6%	33.0%		37.0%	31.9%	

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

Development of net sales and results of operations

In the third quarter of 2021, Life Science generated strong organic sales growth of 17.1%. Including a favorable foreign exchange impact of 0.6%, sales grew by a total of 17.7% over the year-earlier quarter. All three business units contributed to organic growth. By far, the largest contribution came from Process Solutions followed by Research Solutions and Applied Solutions, both supporting the increase in sales to a similar extent. Overall, Life Science net sales increased to € 2,248 million (Q3 2020: € 1,910 million).

Life Science

Net sales by business unit

€ million	Q3 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2020[2]	Share
Process Solutions	1,186	53%	27.6%	0.5%	–	28.2%	926	48%
Research Solutions	608	27%	6.8%	0.6%	–	7.5%	566	30%
Applied Solutions	454	20%	7.9%	0.6%	–	8.6%	418	22%
Life Science	**2,248**	**100%**	**17.1%**	**0.6%**	**–**	**17.7%**	**1,910**	**100%**

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

The Process Solutions business unit, which markets products and services for the entire pharmaceutical production value chain, generated organic sales growth of 27.6%, which was the highest rate within the Life Science business sector. Additional business related to the Covid-19 efforts as well as continued high demand in the base business supported the strong performance. Including a favorable foreign exchange effect of 0.5%, net sales amounted to € 1,186 million in Q3 2021 (Q3 2020: € 926 million). The percentage net sales contribution of the Process Solutions business unit to Life Science net sales rose by five percentage points to 53%. In regional terms, Process Solutions achieved double-digit percentage organic sales growth in all regions apart from Latin America.

The Research Solutions business unit, which provides products and services to support life science research for pharmaceutical, biotechnology, and academic research laboratories, delivered strong organic sales growth of 6.8% in the third quarter of 2021. This was mainly driven by strong demand in the base business. Amid a favorable foreign exchange effect of 0.6%, sales totaled € 608 million in the third quarter of 2021 (Q3 2020: € 566 million). Research Solutions thus accounted for 27% (Q3 2020: 30%) of Life Science net sales. Double-digit organic sales growth was generated in both North and Latin America, with the remaining regions posting single-digit growth.

The Applied Solutions business unit with its broad range of products for researchers as well as scientific and industrial laboratories accounted for a 20% (Q3 2020: 22%) share of Life Science sales. Applied Solutions achieved strong organic sales growth of 7.9% in the third quarter of 2021. Including a favorable foreign exchange effect of 0.6%, net sales totaled € 454 million in the third quarter of 2021 (Q3 2020: € 418 million). In regional terms, Applied Solutions generated organic sales growth in all regions.

Net sales of the business sector by region developed in the third quarter of 2021 as follows:

Life Science

Net sales by region

€ million	Q3 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Q3 2020	Share
Europe	791	35%	22.9%	0.7%	0.1%	23.6%	640	34%
North America	799	36%	14.5%	–0.7%	–	13.7%	702	37%
Asia-Pacific (APAC)	559	25%	13.2%	1.8%	–	15.1%	486	25%
Latin America	73	3%	18.5%	3.2%	–	21.8%	60	3%
Middle East and Africa (MEA)	26	1%	15.9%	5.1%	–	21.0%	22	1%
Life Science	**2,248**	**100%**	**17.1%**	**0.6%**	**–**	**17.7%**	**1,910**	**100%**

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

In the first nine months of 2021, Life Science sales grew organically by 23.9%. Including an unfavorable foreign exchange impact of –3.5%, sales grew by a total of 20.4% compared with the year-earlier period. The Process Solutions business unit delivered the strongest organic growth (33.0%) followed by Research Solutions (20.1%) and Applied Solutions (9.6%). Taking these developments into account, Life Science net sales increased overall to € 6,604 million (January-September 2020: € 5,485 million).

Life Science

Net sales by business unit

€ million	Jan.–Sept. 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2020[2]	Share
Process Solutions	3,385	51%	33.0%	–3.8%	–	29.2%	2,620	48%
Research Solutions	1,884	29%	20.1%	–3.4%	–	16.7%	1,614	29%
Applied Solutions	1,335	20%	9.6%	–2.9%	–	6.7%	1,252	23%
Life Science	**6,604**	**100%**	**23.9%**	**–3.5%**	**–**	**20.4%**	**5,485**	**100%**

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

In the first nine months of 2021, net sales by region developed as follows:

Life Science

Net sales by region

€ million	Jan.–Sept. 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2020	Share
Europe	2,283	34%	22.5%	–0.1%	–	22.5%	1,864	34%
North America	2,349	36%	25.0%	–7.2%	–	17.7%	1,995	37%
Asia-Pacific (APAC)	1,690	26%	24.6%	–2.1%	–	22.5%	1,380	25%
Latin America	209	3%	25.5%	–9.8%	–	15.7%	181	3%
Middle East and Africa (MEA)	72	1%	7.7%	2.2%	–	9.9%	65	1%
Life Science	**6,604**	**100%**	**23.9%**	**–3.5%**	**–**	**20.4%**	**5,485**	**100%**

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

The following table presents the composition of EBITDA pre for the third quarter of 2021 in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Life Science

Reconciliation EBITDA pre[1]

	Q3 2021			Q3 2020			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**2,248**	**–**	**2,248**	**1,910**	**–**	**1,910**	**17.7%**
Cost of sales	–900	3	–898	–830	7	–824	9.0%
Gross profit	**1,348**	**3**	**1,351**	**1,079**	**7**	**1,086**	**24.4%**
Marketing and selling expenses	–529	2	–527	–478	2	–477	10.5%
Administration expenses	–93	9	–84	–88	8	–80	4.3%
Research and development costs	–88	–	–88	–75	–	–75	17.3%
Impairment losses and reversals of impairment losses on financial assets (net)	–	–	–	–1	–	–1	–
Other operating income and expenses	–24	3	–21	–21	2	–18	12.5%
Operating result (EBIT)[1]	**614**			**417**			
Depreciation/amortization/impairment losses/reversals of impairment losses	192	–	192	195	–	195	–1.6%
EBITDA[1]	**806**			**612**			
Restructuring expenses	9	–9	–	11	–11	–	
Integration expenses/IT expenses	8	–8	–	7	–7	–	
Gains (–)/losses (+) on the divestment of businesses	–	–	–	–	–	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**824**	**–**	**824**	**630**	**–**	**630**	**30.7%**
of which: organic growth[1]							29.2%
of which: exchange rate effects							1.6%
of which: acquisitions/divestments							–0.2%

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

In the third quarter of 2021, adjusted gross profit rose by 24.4% to € 1,351 million (Q3 2020: € 1,086 million). The increase was mainly driven by the strong sales growth of the business sector. Adjusted marketing and selling expenses rose by 10.5% due to higher logistics costs and increased personnel costs and as the main drivers to € 527 million (Q3 2020: € 477 million). Adjusted administration expenses increased by 4.3% to € 84 million (Q3 2020: € 80 million) and research and development costs increased by 17.3% to € 88 million (Q3 2020: € 75 million). After eliminating adjustments, amortization and depreciation, EBITDA pre rose by 30.7% to € 824 million (Q3 2020: € 630 million) reflecting the strong performance of the Life Science business sector. Organically, EBITDA pre grew by 29.2% in the third quarter of 2021. The EBITDA pre margin, i.e. EBITDA pre as a percentage of net sales, improved to 36.6% (Q3 2020: 33.0%).

The following table presents the composition of EBITDA pre for the first nine months of 2021 in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Life Science

Reconciliation EBITDA pre[1]

	Jan.–Sept. 2021			Jan.–Sept. 2020			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**6,604**	**–**	**6,604**	**5,485**	**–**	**5,485**	**20.4%**
Cost of sales	–2,636	4	–2,633	–2,349	7	–2,342	12.4%
Gross profit	**3,968**	**4**	**3,972**	**3,136**	**7**	**3,143**	**26.3%**
Marketing and selling expenses	–1,535	3	–1,532	–1,464	2	–1,462	4.8%
Administration expenses	–267	25	–242	–278	29	–248	–2.5%
Research and development costs	–250	–	–250	–226	–	–226	10.7%
Impairment losses and reversals of impairment losses on financial assets (net)	–7	–	–7	–1	–	–1	> 100.0%
Other operating income and expenses	–58	–6	–64	–20	–23	–44	45.7%
Operating result (EBIT)[1]	**1,851**			**1,148**			
Depreciation/amortization/impairment losses/reversals of impairment losses	569	–	569	590	–	590	–3.5%
EBITDA[1]	**2,420**			**1,737**			
Restructuring expenses	19	–19	–	14	–14	–	
Integration expenses/IT expenses	24	–24	–	30	–30	–	
Gains (–)/losses (+) on the divestment of businesses	–	–	–	–	–	–	
Acquisition-related adjustments	–18	18	–	–30	30	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**2,446**	**–**	**2,446**	**1,752**	**–**	**1,752**	**39.6%**
of which: organic growth[1]							42.3%
of which: exchange rate effects							–2.6%
of which: acquisitions/divestments							–0.1%

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

In the first nine months of 2021, adjusted gross profit increased by 26.3% to € 3,972 million (January-September 2020: € 3,143 million). The increase was mainly driven by the strong sales growth of the business sector. Adjusted marketing and selling expenses rose by 4.8% to € 1,532 million, mainly owing to higher logistics costs while administration expenses declined by –2.5% to € 242 million (January-September 2020: € 248 million). Research and development costs increased by 10.7% to € 250 million (January-September 2020: € 226 million). In the first nine months of 2021, EBITDA pre rose by 39.6% to € 2,446 million (January-September 2020: € 1,752 million) reflecting the strong performance of the Life Science business sector, both in the base business and from sales related to the Covid-19 pandemic. Organically, EBITDA pre grew by 42.3% in first nine months of 2021. The EBITDA pre margin of Life Science improved to 37.0% (January-September 2020: 31.9%).

Electronics

Electronics
Key figures

€ million	**Q3 2021**	Q3 2020	Change	**Jan.–Sept. 2021**	Jan.–Sept. 2020	Change
Net sales	937	836	12.1%	2,655	2,550	4.1%
Operating result (EBIT)[1]	125	75	65.8%	369	162	> 100.0%
Margin (% of net sales)[1]	13.4%	9.0%		13.9%	6.3%	
EBITDA[1]	277	227	22.0%	789	697	13.2%
Margin (% of net sales)[1]	29.5%	27.1%		29.7%	27.3%	
EBITDA pre[1]	297	254	16.8%	829	778	6.5%
Margin (% of net sales)[1]	31.7%	30.4%		31.2%	30.5%	

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

Development of net sales and results of operations

In the third quarter of 2021, net sales of the Electronics business sector grew 12.1% to € 937 million (Q3 2020: € 836 million). Organically, sales rose by 10.3%. This was driven by growth across both businesses of Semiconductor Solutions and a continued recovery from the negative Covid-19 impact on Surface Solutions in the third quarter of 2020. Foreign exchange effects increased sales by 1.7%.

Electronics
Net sales by business unit

€ million	**Q3 2021**	**Share**	**Organic growth[1]**	**Exchange rate effects**	**Acquisitions/ divestments**	**Total change**	Q3 2020[2]	Share
Semiconductor Solutions	573	61%	20.9%	1.3%	–	22.3%	469	56%
Display Solutions	267	29%	–7.2%	2.8%	–	–4.4%	279	33%
Surface Solutions	96	10%	9.8%	0.5%	–	10.2%	87	11%
Other					–			
Electronics	**937**	**100%**	**10.3%**	**1.7%**	**–**	**12.1%**	**836**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Within the scope of the integration of Versum Materials Inc., USA, two products previously allocated to the Semiconductor Solutions business unit have now been assigned to Display Solutions. The previous year's figures have been adjusted accordingly.

The Semiconductor Solutions business unit, which comprises two businesses, namely Semiconductor Materials and Delivery Systems & Services, accounted for 61% (Q3 2020: 56%) of net sales of the Electronics business sector in the third quarter of 2021. Net sales of Semiconductor Solutions increased by a total of 22.3% to € 573 million (Q3 2020: € 469 million). Semiconductor Materials focuses on the development and commercialization of material-based solutions for the semiconductor industry, while Delivery Systems & Services focuses on developing, selling and operating delivery systems for semiconductor manufacturers. Organically, net sales grew by 20.9% in the third quarter of 2021 with strong demand in both Semiconductor Materials and Delivery Systems & Services. Foreign exchange effects of 1.3% also contributed to the increase in sales.

Net sales of the Display Solutions business unit, consisting mainly of the business with liquid crystals, photoresists for display applications as well as OLED materials, decreased by –4.4% to € 267 million (Q3 2020: € 279 million). Display Solutions saw an organic decline of –7.2% while sales growth in OLED materials partially offset the challenges faced in Liquid Crystals from continued increased competition. Foreign exchange effects were favorable at 2.8%.

Net sales of the Surface Solutions business unit grew 10.2% to € 96 million (Q3 2020: € 87 million). Organically, Surface Solutions increased sales by 9.8% compared with the year-earlier quarter. This was due to the continued recovery in the third quarter from the effects of Covid-19 crisis, which significantly impacted the third quarter of 2020, particularly the Cosmetics business. Foreign exchange effects were favorable at 0.5%.

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

Electronics

Net sales by region

€ million	**Q3 2021**	**Share**	**Organic growth[1]**	**Exchange rate effects**	**Acquisitions/ divestments**	**Total change**	Q3 2020	Share
Europe	64	7%	15.9%	–0.1%	–	15.8%	56	7%
North America	135	14%	11.4%	–0.8%	–	10.6%	122	14%
Asia-Pacific (APAC)	720	77%	9.8%	2.4%	–	12.2%	642	77%
Latin America	7	1%	–8.1%	3.3%	–	–4.8%	8	1%
Middle East and Africa (MEA)	9	1%	17.1%	0.1%	–	17.2%	8	1%
Electronics	**937**	**100%**	**10.3%**	**1.7%**	**–**	**12.1%**	**836**	**100%**

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

In the first nine months of 2021, net sales of the Electronics business sector grew organically by 6.7. Including negative foreign exchange effects of –2.6%, sales increased by a total of 4.1% to € 2,655 million (January-September 2020: € 2,550 million). including unfavorable foreign exchange impacts of –2.6%. The Semiconductor Solutions and Surface Solutions business units were the main sources of growth in the first nine months of 2021 for the Electronics business sector. Semiconductor Solutions generated an organic sales increase of 12.0%, benefitting from strong growth across most business lines despite challenges from ongoing global supply chain delays. The negative impact of foreign exchange on net sales was –3.3%. The Display Solutions business unit saw an organic decline of –5.1% with OLED growth helping to dampen the impact from decreasing sales from increasing competition in Liquid Crystals. Foreign exchange impacts of –1.3% adversely affected sales as well. Surface Solutions generated an organic sales increase of 16.4% thanks to the continued strong recovery from the Covid-19 crisis across most business lines in the nine-month period of 2021. Unfavorable foreign exchange effects of –3.1% partially offset sales growth in Surface Solutions.

Electronics

Net sales by business unit

€ million	**Jan.–Sept. 2021**	**Share**	**Organic growth[1]**	**Exchange rate effects**	**Acquisitions/ divestments**	**Total change**	Jan.–Sept.[2] 2020	Share
Semiconductor Solutions	1,550	58%	12.0%	–3.3%	–	8.7%	1,426	56%
Display Solutions	795	30%	–5.1%	–1.3%	–	–6.4%	849	33%
Surface Solutions	311	12%	16.4%	–3.1%	–	13.3%	274	11%
Other	–	–	–60.6%	–0.5%	–	–61.1%	1	–
Electronics	**2,655**	**100%**	**6.7%**	**–2.6%**	**–**	**4.1%**	**2,550**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Within the scope of the integration of Versum Materials Inc., USA, two products previously allocated to the Semiconductor Solutions business unit have now been assigned to Display Solutions. The previous year's figures have been adjusted accordingly.

In the first nine months of 2021, net sales by region developed as follows:

Electronics

Net sales by region

€ million	Jan.–Sept. 2021	Share	Organic growth[1]	Exchange rate effects	Acquisitions/ divestments	Total change	Jan.–Sept. 2020	Share
Europe	201	7%	9.1%	–0.6%	–	8.5%	185	7%
North America	398	15%	13.4%	–6.7%	–	6.7%	373	15%
Asia-Pacific (APAC)	2,008	76%	5.3%	–1.9%	–	3.4%	1,942	76%
Latin America	23	1%	15.0%	–6.3%	–	8.7%	21	1%
Middle East and Africa (MEA)	26	1%	–5.2%	–4.3%	–	–9.5%	29	1%
Electronics	**2,655**	**100%**	**6.7%**	**–2.6%**	**–**	**4.1%**	**2,550**	**100%**

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

The following table presents the composition of EBITDA pre for the third quarter of 2021 in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Electronics

Reconciliation EBITDA pre[1]

	Q3 2021			Q3 2020			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**937**	**–**	**937**	**836**	**–**	**836**	**12.1%**
Cost of sales	–531	7	–524	–519	14	–505	3.8%
Gross profit	**406**	**7**	**413**	**317**	**14**	**331**	**24.7%**
Marketing and selling expenses	–147	1	–145	–133	–	–132	9.8%
Administration expenses	–39	11	–28	–38	2	–36	–22.1%
Research and development costs	–72	–	–72	–65	1	–65	10.8%
Impairment losses and reversals of impairment losses on financial assets (net)	–	–	–	–	–	–	–
Other operating income and expenses	–23	19	–5	–5	10	6	> 100.0%
Operating result (EBIT)[1]	**125**			**75**			
Depreciation/amortization/impairment losses/reversals of impairment losses	152	–18	134	151	–1	151	–11.3%
EBITDA[1]	**277**			**227**			
Restructuring expenses	9	–9	–	17	–17	–	
Integration expenses/IT expenses	11	–11	–	10	–10	–	
Gains (–)/losses (+) on the divestment of businesses	–	–	–	1	–1	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**297**	**–**	**297**	**254**	**–**	**254**	**16.8%**
of which: organic growth[1]							11.4%
of which: exchange rate effects							5.4%
of which: acquisitions/divestments							–

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

Adjusted gross profit for the Electronics business sector was € 413 million in the third quarter of 2021 (Q3 2020: € 331 million). The increase of 24.7% over the year-earlier quarter was mainly due to higher net sales as discussed above coupled with improved operational performance. At 44.1%, adjusted gross margin in the third quarter of 2021 increased by 4.5 percentage points over the year-earlier figure (Q3 2020: 39.6%), which reflected the negative impacts of the Covid-19 crisis. Excluding adjustments, the operating result (EBIT) rose by € 50 million to € 125 million in the third quarter of 2021 (Q3 2020: € 75 million) from increased sales and the favorable gross margin development. Adjusted marketing and selling expenses rose by 9.8% and thus more slowly than net sales. This increase was primarily attributable to measures to support sales growth as well as rising logistics costs associated with global shipping capacity constraints and increasing fuel costs. Adjusted administration expenses declined due to synergy execution and reorganization activities associated with the integration of Versum Materials. Organic growth of 11.4% for EBITDA pre was mainly attributable to the organic increase in sales discussed above as well as the positive development of gross profit. Foreign exchange effects favorably impacted EBITDA pre by 5.4%. Consequently, EBITDA pre of Electronics grew by a total of 16.8% to € 297 million (Q3 2020: € 254 million). At 31.7%, the EBITDA pre margin was above the year-earlier figure (Q3 2020: 30.4%).

The following table presents the composition of EBITDA pre for the first nine months of 2021 in comparison with the year-earlier period. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Electronics

Reconciliation EBITDA pre[1]

	Jan.–Sept. 2021			Jan.–Sept. 2020			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**2,655**	**–**	**2,655**	**2,550**	**–**	**2,550**	**4.1%**
Cost of sales	–1,520	18	–1,502	–1,506	37	–1,469	2.2%
Gross profit	**1,135**	**18**	**1,154**	**1,044**	**37**	**1,080**	**6.8%**
Marketing and selling expenses	–419	3	–417	–402	4	–398	4.6%
Administration expenses	–103	14	–89	–121	11	–110	–18.7%
Research and development costs	–205	1	–204	–205	–1	–206	–0.8%
Impairment losses and reversals of impairment losses on financial assets (net)	–	–	–	–	–	–	–
Other operating income and expenses	–39	30	–9	–153	142	–11	–17.7%
Operating result (EBIT)[1]	**369**		**–**	**162**			
Depreciation/amortization/impairment losses/reversals of impairment losses	420	–25	394	535	–112	423	–6.8%
EBITDA[1]	**789**			**697**			
Restructuring expenses	19	–19	–	27	–27	–	
Integration expenses/IT expenses	21	–21	–	34	–34	–	
Gains (–)/losses (+) on the divestment of businesses	–	–	–	1	–1	–	
Acquisition-related adjustments	–	–	–	20	–20	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**829**	**–**	**829**	**778**	**–**	**778**	**6.5%**
of which: organic growth[1]							9.0%
of which: exchange rate effects							–2.5%
of which: acquisitions/divestments							–

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

In the first nine months of 2021, adjusted gross profit for the Electronics business sector was € 1,154 million, which was an increase of 6.8% over the previous year's level (January-September 2020: € 1,080 million). At € 369 million, the unadjusted operating result (EBIT) was € 207 million more than in the year-earlier period (January-September 2020: € 162 million). The increase was largely attributable to growth in the first nine months of 2021 and higher amortization and impairments in the year-earlier period. EBITDA pre of Electronics rose organically by 9.0%. Negative foreign exchange effects amounted to –2.5%. EBITDA pre of the business sector thus grew by a total of 6.5% to € 829 million (January-September 2020: € 778 million). At 31.2%, the EBITDA pre margin was slightly above the year-earlier figure of 30.5%.

Corporate and Other

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

Corporate and Other

Key figures

€ million	**Q3 2021**	Q3 2020	Change	**Jan.–Sept. 2021**	Jan.–Sept. 2020	Change
Operating result (EBIT)[1]	–145	–133	8.9%	–479	–434	10.2%
EBITDA[1]	–119	–111	7.7%	–403	–372	8.4%
EBITDA pre[1]	–109	–80	37.1%	–290	–316	–8.1%

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

After eliminating adjustments, administration expenses amounted to € 92 million in the third quarter of 2021 (Q3 2020: € 70 million). Research and development costs spanning business sectors, for instance expenses for the Innovation Center, were allocated to Corporate and Other in the amount of € 14 million in the third quarter of 2021 (Q3 2020: € 12 million). After eliminating adjustments, other operating expenses (net) increased to € 24 million in the third quarter of 2021 (Q3 2020: € 22 million). After eliminating depreciation, amortization and adjustments, EBITDA pre totaled € –109 million in the third quarter of 2021 (Q3 2020: € –80 million). Compared with the year-earlier period, EBITDA pre improved by 8.1% to € –290 million in the first nine months of 2021 (January–September 2020: € –316 million).

Report on Expected Developments

Merck Group

With the publication of the quarterly statement as of September 30, 2021, we are specifying our forecast of the development of net sales and EBITDA pre for the Merck Group and the individual business sectors Healthcare, Life Science and Electronics as well as our estimate of Group operating cash flow in fiscal 2021.

Fundamental assumptions

The divestment of the allergy business Allergopharma to Dermapharm Beteiligungs GmbH ("Dermapharm") closed on March 31, 2020. The business in Europe was transferred to Dermapharm on March 31, 2020. The transfer of the Allergopharma business in China closed on August 31, 2020. Accordingly, in fiscal 2021, we report a portfolio effect from this transaction, yet it is not material.

Moreover, on December 22, 2020, Merck fully acquired AmpTec GmbH, Hamburg, Germany, a leading contract development and manufacturing organization for mRNA, which is used in vaccines, medicines and diagnostics in connection with Covid-19 and numerous other diseases. Owing to the size of the acquired business, we do not expect a significant portfolio effect.

In the United States, Merck was involved in patent litigation with Biogen Inc., USA. Biogen sued Merck for having allegedly infringed a patent in connection with Rebif®. On September 28, 2020, the U.S. Court of Appeals for the Federal Circuit set aside the first-instance decision and declared Biogen's patent invalid. Therefore, a provision amounting to € 365 million for this patent litigation was reversed in the previous year. The income from the reversal of the provision led to a corresponding increase in EBITDA pre in fiscal 2020. The following forecast, especially the information on the organic growth rates for EBITDA pre of the Merck Group and the Healthcare business sector, is based on a year-earlier figure that has been adjusted for the income from the reversal of the provision.

With regard to the Covid-19 pandemic, since the second half of 2020, we have noted a recovery of the business from the negative impacts of the pandemic. At present, we do not assume that further disease waves will have a negative effect comparable to that seen in the first half of 2020, especially on the Healthcare and Electronics business sectors. For Life Science, we continue to expect significantly positive contributions owing to the Covid-19 pandemic, particularly in the Process Solutions business unit. The increasing availability of Covid-19 vaccines and the associated immunization of the population have contributed to a further stabilization of the societal and economic situation. Nevertheless, the present forecast is subject to a higher degree of estimation uncertainty than was the case in the years prior to the Covid-19 pandemic.

With regard to exchange rate developments, we expect a continuing volatile environment due to political and macroeconomic developments. In the first nine months of 2021, the average euro-U.S. dollar exchange rate was within the range of 1.19 to 1.23 that we had previously expected for the full year 2021, albeit at the lower end of the corridor. For the majority of the remaining currencies, we also expect the negative effects to be less pronounced than assumed in the previous forecast. In comparison with the previous year, for fiscal 2021 we therefore forecast continued negative foreign exchange effects, which were primarily sustained in the first half of 2021. In this context, we assume that in particular, the euro-U.S. dollar exchange rate will significantly impact foreign exchange developments. In addition, foreign exchange developments in individual growth markets will contribute to the overall negative exchange rate impact. The expected negative foreign exchange effects on EBITDA pre will be partly mitigated by currency hedging, although we do not hedge all growth market currencies. This forecast for 2021 is now based on a euro-U.S. dollar exchange rate in a corridor of 1.17 to 1.19.

Net sales

Following a strong third quarter, we are specifying the forecast for Group net sales and now expect organic growth of 13% to 15% for fiscal 2021 (previously 12% to 14%). All business sectors, first and foremost Life Science, will contribute to organic growth. We forecast negative foreign exchange effects of –1% to –2% (previously: –2% to –4%). Overall, we are raising the forecast for net sales to € 19.30 billion to € 19.85 billion (previously: € 18.80 billion to € 19.70 billion) (2020: € 17.53 billion).

EBITDA pre

EBITDA pre is our key financial indicator for steering operating business. Based on an EBITDA pre of € 4.84 billion in 2020, adjusted for the reversal of the provision for the patent litigation with Biogen, we expect an organic increase in EBITDA pre of 26% to 29% (previously 21% to 25%). All business sectors will contribute to this organic growth, especially Life Science. The expected foreign exchange development is likely to adversely affect Group EBITDA pre by between –1% and –2% in fiscal 2021 (previously –2% to –4%) and will be seen in all businesses, most strongly in the Healthcare business sector. We are thus increasing our forecast for EBITDA pre to between € 6.00 billion and € 6.30 billion (previously € 5.60 billion and € 6.00 billion).

Operating cash flow

Since this fiscal year, operating cash flow represents one of our key performance indicators at Group level, thus replacing business free cash flow (BFCF) as a key performance indicator. As regards the composition of operating cash flow, we refer to the section entitled "Course of Business and Economic Position" as well as the Consolidated Cash Flow Statement in this report. In general, the forecast for operating cash flow is subject to a larger fluctuation corridor than the forecast for net sales, EBITDA pre and the previous performance indicator BFCF. We provide an estimate of the development of operating cash flow only for the Group as a whole.

The expected strong operating business performance in fiscal 2021 will be the main driver of operating cash flow, which is why we are also raising the forecast compared with the second quarter to € 4.2 billion to € 4.7 billion (previously: € 3.8 billion to € 4.4 billion). The operating cash flow in fiscal 2020 (€ 3.48 billion), which serves as the reference figure, included the increasing receipt of payments from customers in the fourth quarter of 2020. This forecast also takes into consideration these types of effect, although not as pronounced, in fiscal 2021. We continue to expect payouts for ongoing transformation programs on a larger scale in 2021. In particular, this relates to the transformation and growth program that was launched in the Healthcare business sector in fiscal 2020. Negative foreign exchange effects will also adversely impact operating cash flow. Irrespective of this, the strong operating performance is likely to more than offset these effects.

Healthcare

We are specifying our forecast for the organic growth of net sales of the Healthcare business sector at 8% to 9% (previously 7% to 10%). We expect further significant increases in sales of Mavenclad® and Bavencio® to contribute substantially to this. We forecast slight organic growth of our established portfolio. Generally, this will be driven by organic growth in the Fertility franchise. Continued competitive pressure and the associated decline in sales of Rebif® will offset this. Although the negative impacts of the volume-based procurement regulations that took effect in China in fiscal 2020 will now be incurred in full in fiscal 2021, we forecast only a slight organic decline in sales of our products in the Cardiovascular, Metabolism & Endocrinology franchise. The negative foreign exchange impact forecast for the Healthcare business sector, which will be less pronounced than assumed in the second quarter, will be between –1% and –2% (previously –2% and –4%). Overall, we now expect net sales in the range of € 6.95 billion to € 7.15 billion (previously: € 6.85 billion to € 7.20 billion (2020: € 6.64 billion).

For 2021, we now expect EBITDA pre for the Healthcare business sector of € 2.11 billion to € 2.20 billion (previously € 2.05 billion to € 2.15 billion) (2020: € 1.90 billion, excluding the reversal of the provision from the patent litigation with Biogen). For this key performance indicator, we forecast organic growth of 17% to 20% (previously 15% to 18%). Significant earnings contributions, especially from Mavenclad®, should more than compensate for the negative earnings effects due to the expected decline in sales of Rebif®. The development of EBITDA pre reflects continued rigorous cost management. Therefore, costs will increase more moderately in comparison with the rise in sales. In addition, we will further pursue the continuous prioritization of our development pipeline. We therefore expect the share of both marketing and selling expenses as well as research and development costs to decline as a percentage of sales. Research and development costs will remain heavily dependent on the development of clinical data as well as further expected study results. Owing to the mutual decision to terminate the global strategic alliance with GlaxoSmithKline plc (GSK) on the co-development and co-commercialization of bintrafusp alfa, the remaining portion of the upfront payment previously recognized as deferred income was fully realized as income in the third quarter. In total, the income realized in fiscal 2021 amounts to slightly more than € 100 million, which is being recognized in other operating income. GSK no longer has any obligations to make future milestone payments. A termination provision has been included in research and development costs for all still existing own obligations. Moreover, this forecast reflects income expected from active portfolio management in a low to mid double-digit million euro range as well as income from two already received milestone payments within the scope of our strategic alliance with Pfizer to develop and commercialize Bavencio® as well as R&D costs from the in-licensing agreement for xevinapant. As regards the in-licensing of xevinapant, we refer to the supplemental financial information in this report. We expect foreign exchange effects to adversely affect EBITDA pre by between –5% and –6% (previously –5% to –7%).

Life Science

Following a strong third quarter of 2021, we are raising our forecast for net sales of the Life Science business sector. For fiscal 2021, we now expect organic growth of 20% to 22% (previously 18% to 21%). This development is due to the higher sales expectation for Process Solutions. The business unit remains the strongest growth driver by far, accelerated by continued significantly positive sales contributions due to Covid-19 effects, which are predicted to amount to around € 1 billion in fiscal 2021. The base business is also developing slightly more strongly than initially expected. The Applied Solutions and Research Solutions business units are also contributing positively to the overall development of Life Science. The dynamic growth in our Life Science business is currently subject to higher volatility due to the varying developments across product groups and customer segments. Increased research and development activity as well as higher production volumes among pharmaceutical companies, especially in the biopharmaceutical segment, are the key drivers of growth in the base business. In connection with the Covid-19 pandemic, our growth is being complemented by increased production of vaccines, medicines and diagnostics, for which we manufacture the required input materials. The expansion of our production capacities will enable us to meet a higher level of demand. We forecast a foreign exchange effect of –2% to –3% (previously: –2% to –4%). Consequently, we are raising the forecast and expect net sales of € 8.80 billion to € 9.05 billion (previously: € 8.50 billion to € 8.95 billion (2020: € 7.51 billion).

We have also increased the forecast for EBITDA pre of the Life Science business sector and now expect to generate EBITDA pre of € 3.20 billion to € 3.35 billion in fiscal 2021 (previously € 3.05 billion to € 3.20 billion) (2020: € 2.41 billion), which will reflect organic growth of 36% to 39% (previously 30% to 34%). The persistently dynamic demand trend and clearly positive Covid-19 effects will contribute to organic earnings growth. This will reflect both a continued favorable product mix, predominantly driven by pandemic-related demand, as well as positive scale effects. Higher freight costs will have a negative effect. Based on our estimates, the foreign exchange impact on earnings in fiscal 2021 should be between –1% and –2% (previously –1% to –3%).

Electronics

We are slightly raising the forecast for the Electronics business sector, with respect to the organic growth of net sales, at 7% to 8% (previously 6% to 8%). Accordingly, the forecast for absolute net sales is also being increased to € 3.50 billion to € 3.65 billion (previously € 3.45 billion to € 3.60 billion) (2020: € 3.38 billion). The expected development for fiscal 2021 reflects the successful realignment of our portfolio. The Semiconductor Solutions business unit remains the key growth driver of the development compared with the previous year. We expect a strong growth dynamic, which will exceed market growth in the medium term. As expected, the project business in this business unit is subject to stronger fluctuations owing to its dependency on major individual orders. Following a recovery from the negative effects caused by the Covid-19 pandemic in 2020, we expect that the organic performance of our Surface Solutions business unit will be positive in fiscal 2021. Our Liquid Crystals business will continue to decline and face persistent price erosion due to the price pressure common in this industry. We forecast a foreign exchange effect of –1% to –2% (previously –1% to –3%).

For EBITDA pre of our Electronics business sector, we confirm our forecast for an organic increase in a range between 9% and 12% in 2021. In this context, we assume that the anticipated growth of Semiconductor Solutions as well as active cost management will more than offset the price erosion in Liquid Crystals. This forecast includes the planned realization of synergies totaling around € 83 million from the integration of Versum Materials. We now assume that the expected foreign exchange development will have a milder negative impact on EBITDA pre of 0% to –2% compared with the previous forecast in the second quarter (previously –2% to –4%). Overall, we forecast EBITDA pre in a range of € 1.08 billion to € 1.14 billion (previously: € 1.07 billion to € 1.13 billion) (2020: € 1.02 billion).

Corporate and Other

We are slightly adapting our forecast for Corporate and Other and now expect EBITDA pre for fiscal 2021 in a corridor of € –440 million to € –470 million (previously € –450 million to € –500 million) (2020: € –495 million). We are thus planning a lower cost level in comparison with 2020. This is mainly due to the positive effects expected from foreign currency hedging, which will partly offset negative foreign exchange effects in the business sectors.

In summary, the forecast for fiscal 2021 is as follows:

Forecast for the Merck Group

Forecast for 2021

€ million	Net sales	EBITDA pre	Operating cash flow
Merck Group	**~19,300 to 19,850** • Organic increase of +13% to +15% • Foreign exchange effect –1% to –2%	**~6,000 to 6,300**[1] • Organic increase of +26% to +29% • Foreign exchange effect –1% to –2%	**~4,200 to 4,700**
Healthcare	**~6,950 to 7,150** • Organic increase of +8% to +9% • Foreign exchange effect –1% to –2%	**~2,110 to 2,200**[1] • Organic increase of +17% to +20% • Foreign exchange effect –5% to –6%	n/a
Life Science	**~8,800 to 9,050** • Organic increase of +20% to +22% • Foreign exchange effect –2% to –3%	**~3,200 to 3,350** • Organic increase of +36% to +39% • Foreign exchange effect –1% to –2%	n/a
Electronics	**~3,500 to 3,650** • Organic increase of +7% to +8% • Foreign exchange effect –1% to –2%	**~1,080 to 1,140** • Organic increase of +9% to +12% • Foreign exchange effect 0% to –2%	n/a
Corporate and Other	–	**~–440 to –470**	n/a

[1] EBITDA pre of fiscal 2020 included income from the reversal of a provision for patent litigation amounting to € 365 million. Including this amount in 2020, we expect organic growth of 17% to 20% for the Group and an organic development of 1% to –2% for Healthcare.

EPS pre € 8.50 to € 9.00, based on an adjusted underlying tax rate of 23%

Full-year FX assumption for 2021: € 1 = US$ 1.17 to US$ 1.19

Supplemental Financial Information

Supplemental Financial Information

Consolidated Income Statement

€ million	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020
Net sales	**4,973**	**4,447**	**14,474**	**12,936**
Cost of sales	–1,859	–1,776	–5,392	–5,040
Gross profit	**3,114**	**2,671**	**9,081**	**7,896**
Marketing and selling expenses	–1,066	–992	–3,109	–3,085
Administration expenses	–310	–280	–890	–867
Research and development costs	–660	–531	–1,818	–1,630
Impairment losses and reversals of impairment losses on financial assets (net)	1	–1	–5	–
Other operating income	146	453	432	679
Other operating expenses	–177	–154	–551	–619
Operating result (EBIT)[1]	**1,047**	**1,167**	**3,140**	**2,374**
Finance income	23	7	40	25
Finance costs	–77	–109	–248	–327
Profit before income tax	**993**	**1,065**	**2,932**	**2,071**
Income tax	–229	–258	–673	–518
Profit after tax	**764**	**806**	**2,258**	**1,553**
thereof: attributable to Merck KGaA shareholders (net income)	761	805	2,253	1,551
thereof: attributable to non-controlling interests	3	1	6	2
Earnings per share (in €)				
Basic	1.75	1.85	5.18	3.57
Diluted	1.75	1.85	5.18	3.57

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

Statement of Comprehensive Income

€ million	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020
Profit after tax	**764**	**806**	**2,258**	**1,553**
Items of other comprehensive income that will not be reclassified to profit or loss in subsequent periods				
Net defined benefit liability				
Changes in remeasurement	62	45	684	–319
Tax effect	–4	11	–112	64
Changes recognized in equity	58	56	572	–255
Equity instruments				
Fair value adjustments	–	–8	–77	–29
Tax effect	2	–	11	–
Changes recognized in equity	3	–8	–65	–29
	60	47	506	–284
Items of other comprehensive income that may be reclassified to profit or loss in subsequent periods				
Cash flow hedge reserve				
Fair value adjustments	–14	50	–79	21
Reclassification to profit or loss	16	–5	14	41
Reclassification to assets	–	–	–	–
Tax effect	–4	–14	18	–19
Changes recognized in equity	–3	31	–47	43
Cost of cash flow hedge reserve				
Fair value adjustments	–9	–9	–22	–5
Reclassification to profit or loss	10	3	27	8
Tax effect	–1	–	–2	–1
Changes recognized in equity	–	–5	3	2
Currency translation difference				
Changes taken directly to equity	497	–910	1,131	–1,062
Reclassification to profit or loss	–	–	–	3
Changes recognized in equity	497	–910	1,131	–1,059
	494	–883	1,087	–1,013
Other comprehensive income	**554**	**–836**	**1,593**	**–1,297**
Comprehensive income	**1,318**	**–30**	**3,851**	**256**
thereof: attributable to Merck KGaA shareholders	1,314	–29	3,843	256
thereof: attributable to non-controlling interests	4	–1	9	–

Consolidated Balance Sheet[1]

€ million	Sept. 30, 2021	Dec. 31, 2020
Non-current assets		
Goodwill	16,670	15,959
Other intangible assets	7,628	7,653
Property, plant and equipment	6,761	6,421
Investments accounted for using the equity method	2	2
Other non-current financial assets	792	822
Other non-current receivables	29	25
Other non-current non-financial assets	85	81
Non-current income tax receivables	10	10
Deferred tax assets	1,545	1,543
	33,521	**32,516**
Current assets		
Inventories	3,760	3,294
Trade and other current receivables	3,753	3,221
Contract assets	177	169
Other current financial assets	142	125
Other current non-financial assets	683	597
Current income tax receivables	277	520
Cash and cash equivalents	1,523	1,355
	10,315	**9,280**
Total assets	**43,836**	**41,796**
Total equity		
Equity capital	565	565
Capital reserves	3,814	3,814
Retained earnings	14,955	12,378
Gains/losses recognized in equity	1,273	189
Equity attributable to Merck KGaA shareholders	**20,607**	**16,946**
Non-controlling interests	72	71
	20,679	**17,017**
Non-current liabilities		
Non-current provisions for employee benefits	3,388	3,880
Other non-current provisions	270	281
Non-current financial debt	8,195	9,785
Other non-current financial liabilities	79	62
Other non-current non-financial liabilities	15	55
Non-current income tax liabilities	43	45
Deferred tax liabilities	1,374	1,441
	13,364	**15,548**
Current liabilities		
Current provisions for employee benefits	191	152
Other current provisions	518	461
Current financial debt	2,770	2,357
Other current financial liabilities	372	1,008
Trade and other current payables	2,132	1,768
Refund liabilities	739	666
Current income tax liabilities	1,571	1,460
Other current non-financial liabilities	1,500	1,360
	9,793	**9,231**
Total equity and liabilities	**43,836**	**41,796**

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

Consolidated Cash Flow Statement

€ million	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020
Profit after tax	**764**	**806**	**2,258**	**1,553**
Depreciation/amortization/impairment losses/reversals of impairment losses	443	451	1,287	1,442
Changes in inventories	–160	51	–384	–195
Changes in trade accounts receivable	–54	–75	–433	–254
Changes in trade accounts payable/refund liabilities	131	54	479	12
Changes in provisions	191	–256	246	–294
Changes in other assets and liabilities	128	114	72	–75
Neutralization of gains/losses on disposals of assets	–8	11	–32	–28
Other non-cash income and expenses	30	13	78	28
Operating cash flow	**1,467**	**1,170**	**3,571**	**2,189**
Payments for investments in intangible assets	–219	–35	–287	–101
Payments from the disposal of intangible assets	5	4	35	17
Payments for investments in property, plant and equipment	–299	–235	–868	–777
Payments from the disposal of property, plant and equipment	4	–2	8	8
Payments for investments in financial assets	–146	–224	–171	–262
Payments for acquisitions less acquired cash and cash equivalents	–4	–	–4	–7
Payments from the disposal of other financial assets	21	261	59	331
Payments for the purchase of non-financial assets	–	–500	–	–500
Payments from other divestments	–	–7	1	49
Cash flow from investing activities	**–638**	**–738**	**–1,226**	**–1,242**
Dividend payment to Merck KGaA shareholders	–	–	–181	–168
Dividend payments to non-controlling interests	–	–	–8	–6
Dividend payments to E. Merck KG	–	–	–567	–512
Payments from new borrowings from E. Merck KG	–	–	471	390
Repayments of financial debt to E. Merck KG	–175	–182	–200	–216
Payments from the issuance of bonds	–	996	–	2,486
Repayments of bonds	–	–683	–317	–2,724
Changes in other current and non-current financial debt	–955	–511	–1,382	610
Cash flow from financing activities	**–1,131**	**–380**	**–2,184**	**–141**
Changes in cash and cash equivalents	**–302**	**52**	**161**	**807**
Changes in cash and cash equivalents due to currency translation	1	–17	7	–39
Cash and cash equivalents at the beginning of the reporting period	1,825	1,512	1,355	781
Cash and cash equivalents as of September 30 (consolidated balance sheet)	**1,523**	**1,548**	**1,523**	**1,548**

Consolidated Statement of Changes in Net Equity

		Comprehensive income						
	Jan. 1, 2021	Profit after tax	Gains/losses recognized in equity	Dividend payments	Profit transfer to/from E. Merck KG including changes in reserves	Transactions with no change of control	Change in scope of consolidation/ Other	**Sept. 30, 2021**
Equity capital	**565**	**–**	**–**	**–**	**–**	**–**	**–**	**565**
General partner's equity	397	–	–	–	–	–	–	397
Subscribed capital	168	–	–	–	–	–	–	168
Capital reserves	**3,814**	**–**	**–**	**–**	**–**	**–**	**–**	**3,814**
Retained earnings	**12,378**	**2,253**	**506**	**–181**	**–**	**–**	**–**	**14,955**
Retained earnings/ net retained profit	14,453	2,253	–	–181	–	–	–4	16,520
Remeasurement of defined benefit plans	–2,179	–	572	–	–	–	7	–1,601
Fair value reserve for equity instruments	105	–	–65	–	–	–	–4	36
Gains/losses recognized in equity	**189**	**–**	**1,084**	**–**	**–**	**–**	**–**	**1,273**
Fair value reserve for debt instruments	–	–	–	–	–	–	–	–
Cash flow hedge reserve	–49	–	–47	–	–	–	–	–97
Cost of cash flow hedge reserve	–34	–	3	–	–	–	–	–32
Currency translation difference	273	–	1,129	–	–	–	–	1,402
Equity attributable to Merck KGaA shareholders	**16,946**	**2,253**	**1,590**	**–181**	**–**	**–**	**–**	**20,607**
Non-controlling interests	71	6	3	–8	–	–	–	72
Total equity	**17,017**	**2,258**	**1,593**	**–189**	**–**	**–**	**–**	**20,679**

		Comprehensive income						
€ million	Jan. 1, 2020[1]	Profit after tax	Gains/losses recognized in equity	Dividend payments	Profit transfer to/from E. Merck KG including changes in reserves	Transactions with no change of control	Change in scope of consolidation/ Other	Sept. 30, 2020[1]
Equity capital	**565**	**–**	**–**	**–**	**–**	**–**	**–**	**565**
General partner's equity	397	–	–	–	–	–	–	397
Subscribed capital	168	–	–	–	–	–	–	168
Capital reserves	**3,814**	**–**	**–**	**–**	**–**	**–**	**–**	**3,814**
Retained earnings	**11,483**	**1,551**	**–284**	**–168**	**–**	**–1**	**–**	**12,581**
Retained earnings/ net retained profit	13,134	1,551	–	–168	–	–1	63	14,579
Remeasurement of defined benefit plans	–1,729	–	–255	–	–	–	21	–1,963
Fair value reserve for equity instruments	79	–	–29	–	–	–	–84	–35
Gains/losses recognized in equity	**1,980**	**–**	**–1,011**	**–**	**–**	**–**	**–**	**968**
Fair value reserve for debt instruments	–1	–	–	–	–	–	–	–
Cash flow hedge reserve	–118	–	43	–	–	–	–	–75
Cost of cash flow hedge reserve	–33	–	2	–	–	–	–	–31
Currency translation difference	2,131	–	–1,057	–	–	–	–	1,075
Equity attributable to Merck KGaA shareholders	**17,841**	**1,551**	**–1,295**	**–168**	**–**	**–1**	**–**	**17,928**
Non-controlling interests	73	2	–2	–6	–	–	–	67
Total equity	**17,914**	**1,553**	**–1,297**	**–174**	**–**	**–1**	**–**	**17,996**

[1] Previous year's figures have been adjusted owing to the completion of the purchase price allocation for Versum Materials, Inc., USA.

Information by Business Sector

	Healthcare				Life Science				Electronics			
€ million	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020
Net sales[1]	**1,788**	**1,702**	**5,214**	**4,901**	**2,248**	**1,910**	**6,604**	**5,485**	**937**	**836**	**2,655**	**2,550**
Intersegment sales	–	–	–	–	13	9	44	36	–	–	–	–
Operating result (EBIT)[2]	**453**	**807**	**1,399**	**1,499**	**614**	**417**	**1,851**	**1,148**	**125**	**75**	**369**	**162**
Depreciation and amortization	78	84	234	240	192	195	569	590	133	151	394	424
Impairment losses[3]	–	–	5	13	–	–	–	–	21	–	28	111
Reversals of impairment losses	–	–	–11	–	–	–	–	–	–3	–	–3	–
EBITDA[2]	**532**	**892**	**1,627**	**1,752**	**806**	**612**	**2,420**	**1,737**	**277**	**227**	**789**	**697**
Adjustments[2]	9	4	28	–10	18	18	26	15	20	27	40	81
EBITDA pre (Segment result)[2]	**541**	**896**	**1,655**	**1,742**	**824**	**630**	**2,446**	**1,752**	**297**	**254**	**829**	**778**
EBITDA pre margin (in % of net sales)[2]	30.3%	52.7%	31.7%	35.9%	36.6%	33.0%	37.0%	31.9%	31.7%	30.4%	31.2%	30.5%
Assets by business sector[4]	7,901	7,358	7,901	7,358	21,360	20,145	21,360	20,145	10,057	9,735	10,057	9,735
Liabilities by business sector[4]	–2,761	–2,494	–2,761	–2,494	–1,900	–1,589	–1,900	–1,589	–663	–666	–663	–666
Investments in property, plant and equipment[5]	96	95	292	316	133	95	370	272	61	33	170	152
Investments in intangible assets[5]	209	16	252	31	5	11	21	32	3	5	9	31
Non-cash changes in provisions[6]	102	–348	160	–323	50	43	90	37	16	25	6	32

	Corporate and Other				Group			
€ million	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020
Net sales[1]	**–**	**–**	**–**	**–**	**4,973**	**4,447**	**14,474**	**12,936**
Intersegment sales	–13	–9	–44	–36	–	–	–	–
Operating result (EBIT)[2]	**–145**	**–133**	**–479**	**–434**	**1,047**	**1,167**	**3,140**	**2,374**
Depreciation and amortization	25	22	75	63	429	453	1,272	1,316
Impairment losses[3]	–	–	1	–	22	–	35	124
Reversals of impairment losses	–	–	–	–	–3	–	–14	–
EBITDA[2]	**–119**	**–111**	**–403**	**–372**	**1,495**	**1,619**	**4,433**	**3,815**
Adjustments[2]	10	31	112	56	57	81	205	142
EBITDA pre (Segment result)[2]	**–109**	**–80**	**–290**	**–316**	**1,552**	**1,701**	**4,639**	**3,956**
EBITDA pre margin (in % of net sales)[2]	–	–	–	–	31.2%	38.2%	32.0%	30.6%
Assets by business sector[4]	4,519	4,558	4,519	4,558	43,836	41,796	43,836	41,796
Liabilities by business sector[4]	–17,833	–20,030	–17,833	–20,030	–23,157	–24,780	–23,157	–24,780
Investments in property, plant and equipment[5]	10	12	35	37	299	235	868	777
Investments in intangible assets[5]	2	3	6	6	219	35	287	101
Non-cash changes in provisions[6]	15	48	151	97	184	–233	407	–157

[1] Excluding intersegment sales.
[2] Not defined by International Financial Reporting Standards (IFRS).
[3] Excluding impairments on financial assets.
[4] Figures for the reporting period ending on September 30, 2021; previous-year figures as of December 31, 2020.
[5] As reported in the consolidated cash flow statement.
[6] Excluding provisions for pensions and other post-employment benefits.

Segmentation was performed in accordance with the internal organization and reporting structure of the Merck Group valid as of 2021.

The fields of activity of the individual segments are described under “Fundamental Information about the Group” in the combined management report for 2020.

“Corporate and Other” in Segment Reporting includes income and expenses, assets and liabilities as well as cash flows that cannot be directly allocated to the reportable segments presented. This relates mainly to central Group functions. Moreover, the column served the reconciliation to the Group numbers. Finance income and expenses, income and expenses from income taxes as well as cash flows were also disclosed under “Corporate and Other”.

Apart from sales, the success of a segment is mainly determined by EBITDA pre (segment result). EBITDA pre is a key figure that is not defined by International Financial Reporting Standards. However, it represents an important variable used to steer the Merck Group. To permit a better understanding of operational performance, EBITDA pre excludes depreciation and amortization, impairment losses and reversals of impairment losses in addition to specific adjustments presented in the following.

Transfer prices for intragroup sales were determined on an arm’s-length basis.

The following table presents the reconciliation of the segment results of all operating businesses to the profit before income tax of the Merck Group:

€ million	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020
EBITDA pre of the operating businesses[1]	**1,662**	**1,780**	**4,930**	**4,272**
Corporate and Other	–109	–80	–290	–316
EBITDA pre of the Merck Group[1]	**1,552**	**1,701**	**4,639**	**3,956**
Depreciation/amortization/impairment losses/ reversals of impairment losses[2]	–447	–453	–1,294	–1,441
Adjustments[1]	–57	–81	–205	–142
Operating result (EBIT)[1]	**1,047**	**1,167**	**3,140**	**2,374**
Financial result	–54	–102	–208	–302
Profit before income tax	**993**	**1,065**	**2,932**	**2,071**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Excluding impairments on financial assets.

Adjustments comprised the following:

€ million	**Q3 2021**	Q3 2020	**Jan.–Sept. 2021**	Jan.–Sept. 2020
Restructuring expenses	–22	–33	–61	–69
Integration expenses/IT expenses	–24	–26	–62	–85
Gains (+)/losses (–) on the divestment of businesses	–6	–19	–88	8
Acquisition-related adjustments	–	–	18	11
Other adjustments	–5	–3	–13	–7
Adjustments before impairment losses/ reversals of impairment losses[1]	**–57**	**–81**	**–205**	**–142**
Impairment losses[2]	–22	–1	–33	–114
Reversals of impairment losses	3	–	3	–
Adjustments (total)[1]	**–76**	**–82**	**–235**	**–256**

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Excluding impairments on financial assets.

At the end of the third quarter of 2021, adjustments amounted to € 235 million and were thus lower than in the previous year (January-September 2020: € 256 million). Integration and IT expenses declined to € 62 million (January–September 2020 € 85 million), mainly as a result of lower expenses for the rollout of new ERP systems (January–September 2021: € 34 million/January–September 2020: € 44 million) and other IT projects (January–September 2021: € 4 million/January–September 2020: € 11 million). Higher impairments in the previous year (January–September 2021: € 33 million; January-September 2020: € 114 million) related for the most part to intangible assets in the Electronics business sector. By contrast, gains/losses on the divestment of businesses decreased to € –88 million (January–September 2020: € 8 million). These resulted mainly in connection with the provision for litigation owing to the claims for damages by Heraeus Medical GmbH, Wehrheim, Germany. A smaller portion resulted from the subsequent measurement of the contingent consideration from the divestment of the Biosimilars business to Fresenius SE & Co. KGaA, Bad Homburg vor der Höhe, in fiscal 2017. In the previous year, the gain on the sale of the allergy business Allergopharma was disclosed here (€ 38 million) as was the increase in a provision for litigation related to the divested Generics business.

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

€ million	Jan.-Sept. 2021							
Net sales by nature of the products	Healthcare		Life Science		Electronics		**Group**	
Goods	5,154	99%	5,814	88%	2,360	89%	13,329	92%
Equipment/hardware	2	–	344	5%	231	9%	577	4%
Services	21	–	437	7%	63	2%	521	4%
License income	–	–	8	–	1	–	9	–
Commission income	14	–	–	–	–	–	14	–
Income from co-commercialization agreements	23	1%	–	–	–	–	23	–
Total	**5,214**	**100%**	**6,604**	**100%**	**2,655**	**100%**	**14,474**	**100%**
Net sales by region (customer location)								
Europe	1,663	32%	2,283	34%	201	7%	4,147	29%
North America	1,242	24%	2,349	36%	398	15%	3,989	27%
Asia-Pacific (APAC)	1,474	28%	1,690	26%	2,008	76%	5,172	36%
Latin America	495	9%	209	3%	23	1%	727	5%
Middle East and Africa (MEA)	340	7%	72	1%	26	1%	438	3%
Total	**5,214**	**100%**	**6,604**	**100%**	**2,655**	**100%**	**14,474**	**100%**

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

Healthcare

€ million	**Jan.–Sept. 2021**	**Share**	Jan.–Sept. 2020	Share
Oncology	**1,013**	**20%**	**793**	**16%**
thereof: Erbitux®	726	14%	636	13%
thereof: Bavencio®	252	5%	105	2%
Neurology & Immunology	**1,210**	**23%**	**1,217**	**25%**
thereof: Rebif®	708	14%	864	18%
thereof: Mavenclad®	501	10%	353	7%
Fertility	**1,003**	**19%**	**781**	**16%**
thereof: Gonal-f®	577	11%	471	10%
Cardiovascular, Metabolism and Endocrinology	**1,878**	**36%**	**1,963**	**40%**
thereof: Glucophage®	639	12%	686	14%
thereof: Concor®	386	7%	407	8%
thereof: Euthyrox®	342	7%	344	7%
thereof: Saizen®	184	4%	177	4%
Other	**110**	**2%**	**146**	**3%**
Total	**5,214**	**100%**	**4,901**	**100%**

Life Science[1]

€ million	**Jan.–Sept. 2021**	**Share**	Jan.–Sept. 2020	Share
Process Solutions	3,385	51%	2,620	48%
Research Solutions	1,884	29%	1,614	29%
Applied Solutions	1,335	20%	1,252	23%
Total	**6,604**	**100%**	**5,485**	**100%**

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

Electronics[1]

€ million	**Jan.–Sept. 2021**	**Share**	Jan.–Sept. 2020	Share
Semiconductor Solutions	1,550	58%	1,426	56%
Display Solutions	795	30%	849	33%
Surface Solutions	311	12%	274	11%
Other	–	–	1	–
Total	**2,655**	**100%**	**2,550**	**100%**

[1] Within the scope of the integration of Versum Materials, Inc., USA, two products previously allocated to the Semiconductor Solutions business unit have now been assigned to Display Solutions. The previous year's figures have been adjusted accordingly.

Significant events during the reporting period

End of patent law disputes in the Electronics business sector

In the Electronics business sector, Merck was involved in a legal dispute with JNC Corporation, Japan (JNC). JNC claimed that, by manufacturing and marketing certain liquid crystal mixtures, Merck had infringed JNC patents in China, Taiwan and Korea. Merck maintained that these patents were invalid owing to relevant prior art. The most recent patent infringement action on the part of JNC that was still pending and the patent nullity action on the part of Merck in Korea were resolved in an agreement by both parties in March of fiscal 2021. Based on the agreement, Merck will not be required to make any payments to JNC. The provision, amounting to a low double-digit million euro figure, was thus reversed at the end of the first quarter of fiscal 2021.

Decisions in the antitrust review proceedings for the acquisition of Sigma-Aldrich Corporation, United States

In May 2021, the European Commission (EU) imposed a fine against Sigma-Aldrich Corporation, USA, (Sigma-Aldrich) in the amount of € 7.5 million because it is of the opinion that within the scope of the registration of the acquisition of Sigma-Aldrich, important information about an innovation project was withheld. The EU Commission had cleared the registration of the merger in 2015 subject to the condition that Merck and Sigma-Aldrich divest parts of the European solvents and inorganic chemicals businesses of Sigma-Aldrich in order to resolve antitrust concerns. In July 2017, in connection with the antitrust review proceedings for the acquisition, the EU Commission informed the parties of its preliminary conclusion that Merck and Sigma-Aldrich transmitted incorrect and/or misleading information. This accusation against Merck was dropped in mid-2020. With the imposition of the fine, its payment in June 2021 and the decision to refrain from taking further legal recourse, the proceedings were closed. Since no further resource outflows are expected, the remaining portion of the provision was reversed in the second quarter of 2021. This led to income amounting to a low double-digit million euro sum, which was disclosed in other operating income.

Legal dispute with Heraeus Medical GmbH, Wehrheim, Germany

On July 19, 2021 Merck was sued by Heraeus Medical GmbH, Wehrheim, Germany, (Heraeus) claiming payment of damages. Originally, Heraeus started a proceeding against Biomet Deutschland GmbH, Freiburg im Breisgau, Germany, (Biomet), Zimmer Nederland B.V., Netherlands, (Zimmer) and Biomet, Inc., USA, in 2017 for payment of damages for the unauthorized use of trade secrets and has now expanded the lawsuit to include Merck. Merck is now facing the allegation to have infringed fiduciary duties, which facilitated the unlawful replication of bone cement products by Biomet/Zimmer.

The claim refers to a prior declaratory judgment against Merck obtained by Heraeus in 2013. In that final judgment it was decided that Merck had breached its duties stemming from a distribution agreement with Heraeus that was terminated in 2001. The infringement occurred in 2004 when Merck dissolved its joint venture with Biomet that had existed from 1997 to 2004. Merck will defend itself against the claims for damages by Heraeus. A provision in a double-digit million euro amount has been set up for this matter.

In-licensing agreement with Debiopharm for an active ingredient candidate to treat head and neck tumors

On March 1, 2021, Merck announced the conclusion of an in-licensing agreement with Debiopharm International SA, Switzerland, (Debiopharm) on exclusive development and global commercialization rights for the active ingredient candidate xevinapant (Debio 1143). The agreement also includes development rights for preclinical follow-on compounds to xevinapant. Xevinapant is currently being investigated in a Phase III study for previously untreated high-risk locally advanced squamous cell carcinoma of the head and neck in combination with platinum-based chemotherapy and standard fractionation intensity-modulated radiotherapy.

Pursuant to the agreement, Debiopharm is entitled to an upfront payment of € 188 million, which was made in the third quarter of 2021, less the taxes due on the amount. Moreover, Debiopharm is entitled to future milestone payments of up to € 710 million in total, depending on the achievement of certain approval and sales milestones as well as royalties on future net sales.

The transaction took effect in April 2021 and led to the recognition of an intangible asset not yet ready for use amounting to € 118 million. The rest of the upfront payment led to the recognition of other financial assets for refund claims from development activities and non-financial assets for prepaid development expenses.

Out-licensing agreement with MoonLake Immunotherapeutics AG, Switzerland on active ingredient candidates to treat multiple inflammatory diseases

On May 2, 2021, Merck announced that it had entered into an out-licensing agreement with the newly founded company MoonLake Immunotherapeutics AG (MoonLake) for sonelokimab (M1095). Sonelokimab is an investigational anti-IL-17A/F Nanobody®, which neutralizes both IL-17A and IL-17F, in patients with moderate to severe chronic plaque-type psoriasis. MoonLake will assume full responsibility for the research, development and commercialization of sonelokimab.

As part of the agreement, Merck received an upfront payment amounting to a low double-digit million euro figure, an equity interest in MoonLake of just under 10% and the right to future milestone payments totaling up to a mid triple-digit million euro amount depending on the achievement of certain development and sales milestones, as well as royalties on future net sales. On initial recognition, the equity instruments were measured at fair value. The income from the out-licensing of intellectual property, which amounted to a low double-digit million euro figure, was reported in other operating income.

Termination of the strategic alliance with GlaxoSmithKline plc, United Kingdom, in immuno-oncology

In the third quarter of 2021, Merck made the mutual decision with GlaxoSmithKline plc, United Kingdom, (GSK) to terminate their agreement on bintrafusp alfa in the field of immuno-oncology, effective September 30, 2021. The decision is based on the clinical trial data generated to date, most notably the previously reported results from the INTR@PID Lung 037 study for first-line treatment of patients with non-small cell lung cancer, which did not replicate the encouraging data observed in earlier studies. In fiscal 2021, Merck will recognize research and development costs amounting to a low triple-digit million euro figure (2020: low triple-digit million euro figure). This amount includes expenses from provisions set up for subsequent costs amounting to a mid double-digit million euro amount, which was set up as a consequence of the termination in the third quarter of 2021. Moreover, in fiscal 2021, Merck will realize other operating income amounting to € 123 million from the release of the remaining portion of the upfront payment received from GSK and recognized as deferred income in 2019 (2020: € 85 million).

Other events during the reporting period

In the third quarter of 2021, Merck acquired an intangible asset imparting priority review entitlement by the U.S. Food and Drug Administration (FDA). The acquisition costs amounted to a high double-digit million euro figure. The intangible asset will only be amortized once it is in full use. Until then it will be subjected to regular impairment testing.

Subsequent events

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

Effects of disclosure changes

Change in balance sheet disclosure of long-term income tax receivables and income tax liabilities

To increase comparability, with effect from January 1, 2021, Merck adapted the disclosure of long-term income tax receivables and income tax liabilities.

Long-term assets were expanded to include the balance sheet item “long-term income tax receivables”. In connection with this reclassification, other long-term non-financial assets were reduced correspondingly by € 10 million.

Long-term liabilities were expanded to include the balance sheet item “long-term income tax liabilities”. In connection with this reclassification, other long-term non-financial liabilities were reduced correspondingly by € 45 million.

Darmstadt, November 10, 2021

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FINANCIAL CALENDAR 2022

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2022
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