Quarterly Statement

3rd QUARTER 2016

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This document is a quarterly statement pursuant to section 51a of the Exchange Rules for the Frankfurt Stock Exchange.

This quarterly statement contains certain financial indicators such as EBITDA pre exceptionals, business free cash flow (BFCF), net financial debt and earnings per share pre exceptionals, 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 2015 has been optimized for mobile devices and is available on the Web at **ar2015.merckgroup.com**

MERCK – IN BRIEF

MERCK GROUP
Key figures

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Net sales	3,724	3,120	19.3%	11,194	9,381	19.3%
Operating result (EBIT)	676	564	19.9%	2,075	1,545	34.3%
Margin (% of net sales)	18.2%	18.1%		18.5%	16.5%	
EBITDA	1,110	901	23.3%	3,462	2,551	35.7%
Margin (% of net sales)	29.8%	28.9%		30.9%	27.2%	
EBITDA pre exceptionals	1,174	944	24.3%	3,416	2,696	26.7%
Margin (% of net sales)	31.5%	30.3%		30.5%	28.7%	
Profit after tax	460	366	25.9%	1,368	997	37.2%
Earnings per share (€)	1.05	0.84	25.0%	3.13	2.27	37.9%
Earnings per share pre exceptionals (€)	1.70	1.32	28.8%	4.79	3.74	28.1%
Business free cash flow	1,085	841	29.0%	2,646	2,031	30.3%

MERCK GROUP
Net sales by quarter

€ million

MERCK GROUP
EBITDA pre exceptionals by quarter

€ million

OUR SHARES

At a glance

In the third quarter of 2016, both the stock markets in general and Merck shares showed a slight upward trend, similar to the previous quarter. Based on a closing price of € 91.31 on June 30, 2016, our share price climbed to € 95.65 as of September 30, 2016, corresponding to an increase of nearly 5%. The performance of Merck shares was around four percentage points below the comparative DAX® index and around three percentage points below that of the relevant chemical industry index. Yet Merck shares outperformed the relevant pharmaceutical industry index by nearly 10 percentage points.

Overall, the good performance of Merck shares in the second quarter continued in the third quarter, especially in the first half of the quarter. As of mid-August, however, a visible share price correction specifically took hold in the pharmaceutical sector. Apart from growing uncertainty in the course of the upcoming presidential elections over potentially significant changes in the United States, the world's largest pharmaceutical market, a major reason for this was disappointing clinical data presented by a competitor in the field of immuno-oncology. This triggered revisions in the market's expectations for the prospects of growth and success in the pharmaceutical sector. At the same time, however, Merck announced a very good set of second-quarter results and lifted its guidance for financial performance in 2016. While this was received positively by analysts and investors, it temporarily also led to slight profit-taking. Furthermore, share prices in the broader stock market started to climb noticeably around mid-August. Among other things, this was due to slightly positive surprises with respect to key economic indicators as well as to the visible recovery in oil prices, which had reached historic lows at the end of July/beginning of August 2016. Merck's broad positioning and limited dependence on a single industry were most likely the key reasons for the fairly stable performance of our shares in the second half of the quarter. Reflecting both trends to a certain extent, they traded within a narrow range of € 93.08 to € 99.96.

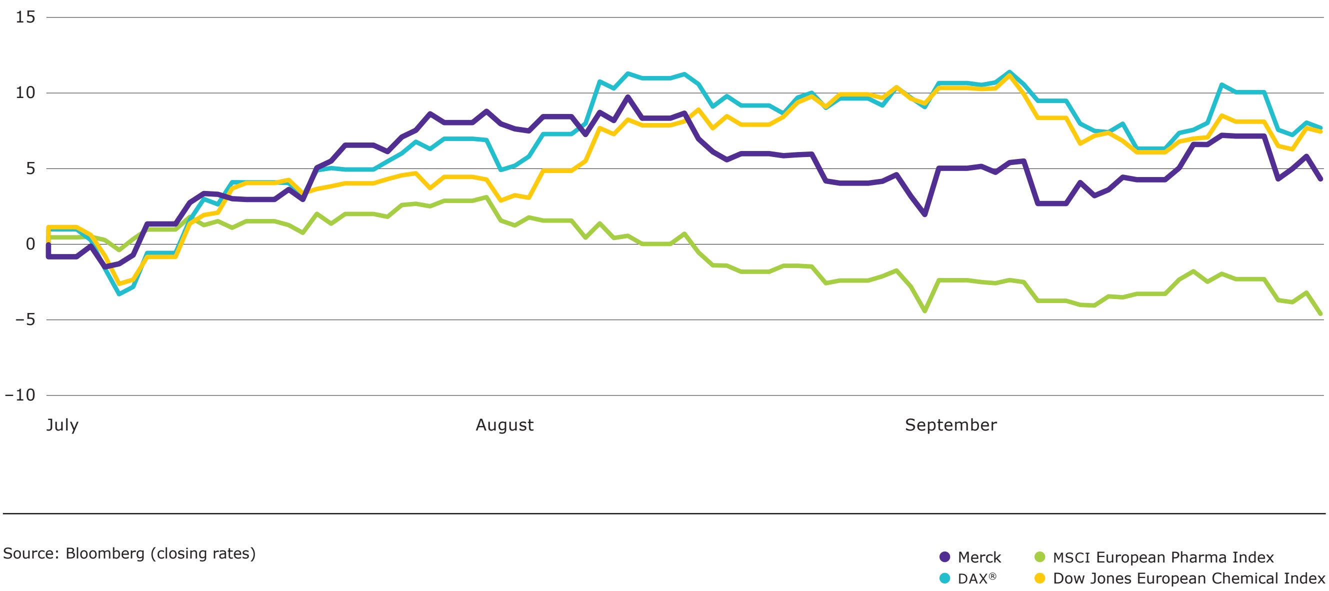
In the third quarter of 2016, typically a very active period, our executive management and Investor Relations team gave in-depth briefings to more than 250 investors during investor conferences, roadshows and conference calls. Additional members of the Merck Executive Board met with investors and analysts in the third quarter of 2016, thereby considerably expanding our visibility among financial market participants.

The average daily trading volume of our shares decreased significantly by around 34% from approximately 551,000 in the previous-year period to 364,000 in the third quarter of 2016.

MERCK SHARES

Share price development from July 1, 2016 to September 30, 2016

in %



Source: Bloomberg (closing rates)

FUNDAMENTAL INFORMATION ABOUT THE GROUP

Merck

We are a global science and technology company headquartered in Darmstadt, Germany. In October 2015, we repositioned our corporate brand.

The fundamental redesign of the visual appearance and the introduction of a new logo reflect our transformation into a global science and technology company. At the same time, we simplified the brand architecture. We hold the global rights to the Merck name and brand and will also operate uniformly as Merck in the future – the only exceptions are Canada and the United States. In these countries, we operate as EMD Serono in the Biopharma business, as MilliporeSigma – following the completed acquisition of Sigma-Aldrich – in the Life Science business and as EMD Performance Materials in the materials business.

With a history of nearly 350 years, we are the oldest chemical and pharmaceutical company in the world. Our product portfolio ranges from innovative pharmaceuticals and biopharmaceutical products, to life science tools, specialty chemicals, and high-tech materials. In line with our strategic direction, Merck comprises three business sectors: Healthcare, Life Science, and Performance Materials.

At the Annual General Meeting of Merck on April 29, 2016, Stefan Oschmann took over as new CEO and Chairman of the Executive Board from Karl-Ludwig Kley, who had held this position since 2007. In addition, Udit Batra, Head of the Life Science business sector, and Walter Galinat, Head of the Performance Materials business sector, became new members of the Executive Board. They succeeded Bernd Reckmann, a long-serving member of the Executive Board and until then responsible for Life Science and Performance Materials. Merck had 50,967 employees worldwide on September 30, 2016, which compares with 40,339 on September 30, 2015 prior to the acquisition of Sigma-Aldrich.

A detailed description of Merck and its business sectors can be found in the Annual Report for 2015 starting on page 45. This section of the present quarterly statement summarizes the highlights of the third quarter of 2016 at Merck.

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Sales by business sector – Q3 2016

€ million / % of net sales

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EBITDA pre exceptionals by business sector – Q3 2016

€ million / in %

Not presented: Decline in Group EBITDA pre exceptionals by € –97 million due to Corporate and Other.

MERCK GROUP

Business free cash flow by business sector – Q3 2016

€ million / in %

Not presented: Decline in Group business free cash flow by € –119 million due to Corporate and Other.

MERCK GROUP

Employees by region as of September 30, 2016

Number / in %

Healthcare

The Healthcare business sector comprises the Biopharma, Consumer Health, Biosimilars, and Allergopharma businesses. The share of Group sales attributable to the Healthcare business sector was 46% in the third quarter of 2016 and the share of EBITDA pre exceptionals (excluding Corporate and Other) was 45%.

BIOPHARMA

Oncology

To support our goal of improving care for patients with metastatic colorectal cancer by providing access to state-of-the-art, reliable and accurate testing technology, we signed a collaboration agreement with Amoy Diagnostics Co., Ltd. (AmoyDx) of China in July for the development and commercialization of a new liquid biopsy RAS biomarker test for patients with metastatic colorectal cancer. The test will be developed using AmoyDx real-time polymerase chain reaction technology, ADx-SuperARMS®, and will be made available in China in 2017. Further plans are to expand into other markets such as Argentina, Brazil, Hong Kong, India, Mexico, Russia, and Taiwan by 2019.

We also published the full data set of the pivotal Phase III TAILOR study conducted in patients with metastatic colorectal cancer from China during the 18th ESMO World Congress on Gastrointestinal Cancer in Barcelona, Spain. The results of the TAILOR study further reaffirm that Erbitux® plus FOLFOX as chemotherapy backbone is an effective treatment option for patients with RAS wild-type metastatic colorectal cancer.

Immuno-Oncology

Together with our alliance partner Pfizer, we further advanced the clinical development of the investigational product avelumab*, with the initiation of an additional Phase III trial in the third quarter of 2016. This study, known as JAVELIN Ovarian 100, is evaluating avelumab as a first-line treatment for ovarian cancer.

The development program for avelumab now includes 30 ongoing clinical programs involving 2,900 patients being evaluated across more than 15 tumor types.

Neurology/Immunology

In July, we announced the European Medicines Agency's (EMA) acceptance to review the Marketing Authorization Application (MAA) for the investigational product Cladribine Tablets* for the treatment of relapsing-remitting multiple sclerosis. While multiple therapies are available for relapsing-remitting multiple sclerosis, there are still significant unmet medical needs. The additional data we have gathered over the last four years provide better characterization of the safety and tolerability profile.

In September, the results of more than 30 clinical studies of Cladribine Tablets and Rebif® were presented at the 32nd Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) meeting in London, United Kingdom.

Fertility

In July, we further substantiated our leadership in Fertility during the 32nd Annual Meeting of the European Society of

*Pipeline products are under clinical investigation and have not been proven to be safe and effective. There is no guarantee that an investigational agent will be approved in the sought after indication by any health authority worldwide.

Human Reproduction and Embryology (ESHRE) in Helsinki, Finland. We showcased the improved Gonal-f® prefilled pen, which was approved in Europe in March and includes various advanced features designed to facilitate administration for patients. At the booth, our Fertility Technologies unit presented their continuously expanding portfolio, introducing several new products to our customers, e.g. Geri Connect & Assess, Geri+, the incubator for bright and dark field imaging, and Gidget, an easy-to-use witnessing system. One year after the formation of the Global Fertility Alliance at the 2015 Annual Meeting of ESHRE, the founding members of the alliance – Merck, Genea and Illumina – reconvened at the congress, now driving the project together with two new members: ZEISS and Hamilton Thorne.

General Medicine & Endocrinology

In September, we initiated the construction of a new packaging building in Darmstadt, Germany, which will focus on our leading brands Glucophage®, Concor® and Euthyrox®. Sustained growth of healthcare needs in the areas of diabetes, cardiovascular diseases and thyroid disorders continues to drive patient demand for these products. This investment is part of a broader investment in our manufacturing and supply network around the world to continuously adapt our footprint and capacity while leveraging new technologies and helping to ensure that we deliver high quality medicines at the right time for our patients.

Life Science

In the third quarter of 2016, the share of Group sales attributable to the Life Science business sector was 37% and the share of EBITDA pre exceptionals (excluding Corporate and Other) was 33%.

In July, Life Science relaunched its biomanufacturing science training centers, unveiling a new concept and new name. The new, state-of-the-art M Lab™ Collaboration Centers are located in biotech hubs around the world in close proximity to our customers. There will be nine centers in all, including North America, Europe, Asia, and Latin America. Each center provides customers with a shared, exploratory environment where they can closely collaborate with Merck scientists and engineers to accelerate development and manufacture of new therapies.

In July, we also announced the construction of multifaceted campus near Boston, in Burlington, Massachusetts, involving an investment of about US$ 115 million. The campus will serve as a major hub for the North American Life Science business and include an M Lab™ Collaboration Center, lab and office space. The campus is scheduled to open in mid-2017.

In August, we announced that we had signed an agreement with Y-mAbs Therapeutics, Inc. to provide Life Science's Provantage® End-to-End development and manufacturing services to Y-mAbs. This will support Y-mAbs' monoclonal antibody targeting advanced, refractory brain tumors in pediatric patients, which is in late-stage clinical development.

Also in the third quarter, Life Science announced that it is joining the DiViNe project, a European consortium of six companies to address the biggest challenges facing the development, manufacture and delivery of vaccines.

The Life Science business sector launched more than 120 products in the third quarter of 2016, including its Centinel™ technology, a first-of-its kind gene editing technology to modify CHO cell lines to be resistant to minute virus of mice, a common contamination threat.

The integration of Sigma-Aldrich continued to progress in the third quarter of 2016. At our Capital Market Day in mid-October, we announced that at the end of 2016, Merck will already have leveraged € 105 million as compared with the originally planned amount of € 90 million in annually recurring cost synergies In addition, we expect previously unplanned top-line synergies, which by the end of 2018 are expected to contribute an additional € 15 million or € 20 million to earnings. Consequently, total synergies from the acquisition are expected to amount to € 280 million instead of originally € 260 million per year as of 2018. Moreover, the Process Solutions sales team is now one organization. Research Solutions and Applied Solutions sales are operating as a combined entity in Europe with North America coming on board in 2017. In line with the Life Science operating model, the business areas are executing one, global marketing strategy.

Performance Materials

Our entire specialty chemicals business is combined in our Performance Materials business sector. The portfolio includes high-tech chemicals for applications in fields such as consumer electronics, lighting, coatings, printing technology, paints, plastics, and cosmetics. Performance Materials comprises four business units: Display Materials, Integrated Circuit Materials, Pigments & Functional Materials, and Advanced Technologies. In the third quarter of 2016, the business sector's share of Group sales amounted to 17% and its share of EBITDA pre exceptionals (excluding Corporate and Other) was 22%.

In the third quarter of 2016, we defended our position as the global market and technology leader for established liquid crystal technologies – in the face of declining demand for liquid crystal displays (LCDs) and the associated lower capacity utilization of display manufacturers. The development of new application possibilities for liquid crystals was again an important focus of our LC 2021 strategic initiative in the third quarter of 2016. This primarily includes the development of liquid crystal window technology. In order to protect against solar radiation, these windows allow continuously variable switching from light to dark in just seconds and have high color neutrality compared with competitive technologies. They are intended for use in buildings, but also for example in sunroofs of automobiles. A privacy version of the windows permits switching from transparent to opaque. To achieve faster market penetration of the new technology, Merck is investing around € 15 million in a production facility for liquid crystal window modules at a site in the Netherlands. The manufacture of these switchable modules, which our customers can process into smart windows and glass façades, is to start at the end of 2017. This year, our annual “Displaying Futures” symposium focused on future mobility. Internationally renowned futurists and mobility researchers spoke with designers and experts from the automotive production and supply industry at this event. Since Merck materials are already used in many automotive components, the symposium was an ideal opportunity to focus more closely on ideas for the cars of tomorrow. We want to use the Automotive Platform that we have developed to show the potential that these materials have in view of future trends. These include for instance liquid crystals for free-form displays, for mobile antenna applications or adaptive lighting in headlights, OLEDs, LEDs, as well as semiconducting materials in chips or functional pigments. To further young companies and researchers, in 2016 we presented the Displaying Futures Award for the first time. The prize which is worth US$ 50,000 and awarded for new ideas involving liquid crystal materials, was presented in September to three teams from the United States and the Netherlands.

Integrated Circuit Materials is our second-largest business unit and supplies products for integrated circuit manufacture. By integrating the two acquisitions, namely the SAFC Hitech business of Sigma-Aldrich and Ormet Circuits, we have ideally complemented our portfolio to include deposition materials and conductive pastes for semiconductor packaging. As a leading global supplier to the electronics and semiconductor industries, in the third quarter we also strengthened our positioning in the growth market of China. In September we presented our modern materials at the Semicon Conference in Taiwan and won very positive customer resonance. A very important topic at the international event was the further development of ever smaller and more powerful computer chips. Many manufacturers are using the third dimension in order to get around Moore’s Law. Merck offers various products that make this 3D chip technology possible, for instance by helping to create insulating layers. Other innovations are helping to make the particle structures on the chip even smaller.

The Pigments & Functional Materials business unit develops and markets a comprehensive product portfolio of decorative effect pigments and functional materials. In the third quarter, we launched the Thermaval series of pearlescent pigments for high-temperature applications. With the new technology, ceramic glazes retain their brilliant colors and sparkle effect, also when used in ceramic glazes at cost-efficient single-firing temperatures beyond 1,100°C. Sales to the tableware sector will initially be handled exclusively by the Frankfurt-based company Ferro, a market leader in ceramic glazes and ceramic pigments. In the cosmetic pigments segment, we launched Ronastar Royal Sparkle, the first encapsulated pigment in our portfolio. The special encapsulation technology improves the skin feel and adhesion of products to achieve a long-lasting effect. In the cosmetic actives sector, we entered into a long-term collaboration with Agrimer of France in order to market innovative marine active ingredients. The first of these to emerge from the collaboration is based on a new genetically decoded species of algae and is marketed under the brand name RonaCare® RenouMer.

Higher demand for our insect repellent IR3535 triggered by the Zika virus epidemic, continued in the third quarter. This enabled us to gain further market share, even in the existing market. The substance provides effective protection against mosquito bites and is also safe for pregnant women, who are at particular risk from the Zika virus.

The Advanced Technologies business unit invests particularly in future-oriented research and development in Performance Materials. A very good example of this are our materials for organic light-emitting diodes (OLEDs). The OLED materials business is one of our fastest-growing businesses. We opened the new production facility for OLED materials in September as planned. After a 14-month construction period, high-purity OLED materials for use in state-of-the-art displays and lighting systems are being produced in the approximately 3,600 square meter building. With a total investment of around € 30 million, this is one of the largest single investments Merck has made at the Darmstadt site in recent years. The plant enables a fivefold increase in production capacity and can be started up stepwise. Merck aims to be a leading supplier of OLED materials by 2018. In order to meet the growing demand for quantum materials, we entered into a non-exclusive licensing agreement with Nanoco of the United Kingdom in the third quarter. The license allows Merck to immediately start marketing Nanoco's environmentally friendly cadmium-free quantum dots and to ultimately establish its own production facility in the long term. Quantum materials enable ultra-bright displays with a notable expansion of the color gamut. They ideally complement our portfolio for the display industry.

Research and Development

We conduct research and development (R&D) worldwide in order to develop new products and services designed to improve the quality of life of patients and to satisfy the needs of our customers. Further optimizing the relevance and efficiency of our research and development activities – either on our own or in cooperation with third parties – is one of our top priorities.

Around 5,000 employees work for Merck researching innovations to serve long-term health and technology trends in both established and growth markets. We spent € 443 million on research and development in the third quarter of 2016. We focus on both in-house research and external collaborations. Our R&D activities are set up in line with the structure of Merck with three business sectors.

A detailed description of our R&D activities can be found in the Annual Report for 2015 starting on page 70. This section of the present quarterly statement summarizes the research and development highlights of the third quarter of 2016 at Merck.

Healthcare

Immuno-Oncology/Oncology

In September we commenced the clinical development of our investigational BTK inhibitor (M7583) in Oncology, with the start of our first Phase I clinical study of this compound. This first-in-human study in hematological malignancies represents a milestone of this program.

The investigational product avelumab is our most advanced clinical development program in oncology with eight Phase III studies sponsored by the Merck-Pfizer Alliance now underway in a variety of solid tumors. In July we initiated a new Phase III study evaluating avelumab as a first-line treatment for ovarian cancer. This study, known as JAVELIN Ovarian 100, is an open-label, international, multi-center, randomized trial in treatment-naïve patients with locally advanced or metastatic ovarian cancer (Stage III or Stage IV). It is the first Phase III study evaluating the addition of an immune checkpoint inhibitor to standard-of-care in first-line treatment for this aggressive disease and aims to enroll approximately 950 patients, who will receive concurrent avelumab and chemotherapy, avelumab following chemotherapy, or chemotherapy alone.

Detailed data were presented from the pivotal Erbitux® Phase III clinical trial (the TAILOR study) in patients with metastatic colorectal cancer (mCRC) in China, the first prospective study to evaluate an anti-EGFR antibody in first-line therapy of patients with RAS wild-type mCRC. The results were presented during the European Society for Medical Oncology (ESMO) World Congress on Gastrointestinal Cancer in early July in Barcelona. The study included 393 patients and showed that Erbitux® (cetuximab) plus FOLFOX statistically significantly improved outcomes compared to FOLFOX alone, including best overall response rate (61.1% vs. 39.5%), lowered the risk of disease progression by 31%, and decreased the risk of death by 24%. Progression-free survival was significantly improved by the combination of Erbitux® plus FOLFOX vs. FOLFOX alone (9.2 vs. 7.4 months), as was overall survival (20.7 vs. 17.8 months). These results reaffirm that Erbitux® plus FOLFOX is an effective treatment regimen for patients with RAS wild-type mCRC. As the first prospective trial evaluating Erbitux® in RAS wild-type patients, the TAILOR results show the importance of RAS biomarker testing in order to determine the appropriate targeted therapy for individual patients, based on their tumor's genetic make-up.

New research on Erbitux® and our pipeline compounds was presented at the Annual Meeting of the European Society for Medical Oncology (ESMO) in Copenhagen, Denmark, in October. Presentations focused on hard-to-treat cancers, and included: study results for Erbitux® (cetuximab) in metastatic colorectal cancer (mCRC) and squamous cell carcinoma of the head and neck (SCCHN), reaffirming Erbitux® as a standard-of-care therapy for mCRC patients with RAS wild-type tumors and patients with SCCHN. Preliminary study results were presented for our investigational product avelumab in bladder cancer, supporting its further development in this indication, as well as preliminary results from a combination study of avelumab with axitinib in renal cell carcinoma (RCC) that support the rationale to evaluate this combination in a Phase III pivotal study in RCC. Results on the investigational compound tepotinib, a highly selective c-Met kinase inhibitor, were presented on three posters, and included updates on the ongoing study program in c-Met-positive metastatic non-small cell lung cancer.

Our Grant for Oncology Innovation (GOI) initiative, which awards funds for pioneering independent research in oncology, was awarded on the occasion of ESMO on October 9. There were 405 applications from 49 countries for this year's award. Three research teams from Italy, New Zealand and Spain were selected to share the € 1 million grant to fund their research in the areas of breast cancer, colorectal cancer and lung cancer.

Neurology

The European Medicines Agency (EMA) accepted for review our Marketing Authorization Application (MAA) for the investigational product Cladribine Tablets for the treatment of relapsing-remitting multiple sclerosis (MS). This MAA submission includes data from three Phase III studies, CLARITY, CLARITY EXTENSION and ORACLE MS, and the Phase II ONWARD study. In these trials, Cladribine Tablets showed significantly reduced relapse rates, risk of disability progression and development of new MS lesions, as detected by MRI, versus placebo in patients with relapsing-remitting MS. Together with interim long-term follow-up data from the prospective registry, PREMIERE, the new MAA includes follow-up data consisting of over 10,000 patient years of observation, with follow-up in some patients exceeding eight years.

Additionally, in September we presented clinical data for investigational Cladribine Tablets in two oral presentations at the 32nd Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) in London. The findings, from the CLARITY and CLARITY EXTENSION trials and from the open-label maintenance period of the ORACLE-MS study, demonstrated durable efficacy of Cladribine Tablets in patients with multiple sclerosis (MS) along with an acceptable safety profile. CLARITY and CLARITY EXTENSION confirmed that 20 days of oral dosing over two years was effective in reducing the frequency of relapses and slowing disability progression for up to four years.

The second oral presentation reported data from the open-label maintenance period of the Phase III ORACLE-MS study. ORACLE-MS showed that for patients with a first demyelinating event, treatment with investigational Cladribine Tablets significantly reduced the risk of progression to clinically definite MS compared with placebo. For the open-label portion of the study, patients who converted to clinically definite MS during the initial treatment period were switched to Rebif® therapy. The new data presented at ECTRIMS show that patients who had received investigational Cladribine Tablets in the initial treatment phase had lower annualized relapse rates over the maintenance period compared to those who had received placebo in the initial treatment phase.

Also on the occasion of the 32nd Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) in London, we announced the recipients of the fourth annual Grant for Multiple Sclerosis Innovation (GMSI) at a symposium on September 15. This year, 260 proposals from 45 countries were submitted, representing innovative research projects taking place across the globe. Four international research teams from Canada, Germany, Israel, Qatar, Spain, and the United Kingdom were selected to share the € 1 million grant to support their research. The GMSI was launched in October 2012 with the aim of improving the understanding of multiple sclerosis (MS) for the ultimate benefit of patients living with the disease. As part of our portfolio prioritization efforts, and to allow us to focus on other ongoing projects in Neurology and Immunology, we returned the rights to the Phase II MS project ATX-MS-1467, to Apitope.

Fertility

In July we announced our continued support for the advancement of medical science in the field of fertility through the Grant for Fertility Innovation (GFI) program by awarding grants totaling € 1.5 million in 2016/17. The announcement was made on the occasion of the 32nd annual meeting of European Society of Human Reproduction and Embryology (ESHRE) in Helsinki, Finland. Launched in 2009, the GFI is dedicated to transforming innovative translational fertility research projects into concrete health solutions to improve the outcomes of assisted reproductive technologies. This year, six winning projects from China, Hong Kong, Ireland, the United States, and Italy (two teams) were selected from 112 global proposals with the overall goal of improving the chances of conceiving.

Immunology

In August, the first patient in a Phase IIa clinical trial was dosed with our internally developed investigational product, the BTK inhibitor M2951. The study will evaluate the efficacy and safety of M2951 in subjects with rheumatoid arthritis on stable methotrexate therapy. The trial was initiated in early July. This molecule is also currently being tested in a Phase Ib study in systemic lupus erythematosus (SLE).

General Medicine & Endocrinology

On September 12, 2016 we announced the recipients of the Grant for Growth Innovation (GGI) for 2016. The awards were announced at an award presentation meeting held on the occasion of the 55th European Society for Pediatric Endocrinology (ESPE) Meeting in Paris, France. Thirty-eight applications were received from 20 countries and following a rigorous selection process, three awards were made to innovative projects from Australia, Brazil and Italy, which seek to advance understanding in the field of human growth disorders.

* Pipeline products are under clinical investigation and have not been proven to be safe and effective. There is no guarantee that an investigational agent will be approved in the sought after indication by any health authority worldwide.

Life Science

In the third quarter of 2016, the U.S. publication "R&D Magazine" announced two Life Science products as finalists for their 2016 R&D 100 awards: the Sanger Arrayed Lentiviral CRISPR Libraries and the Muse® Auto CD4 cell analysis system.

The Life Science business sector launched more than 124 products in the third quarter, including its Centinel™ technology, a first-of-its kind gene editing technology to modify CHO cell lines to be resistant to minute virus of mice, a common contamination threat, and their CRISPR Whole Genome Pooled Library. The launches included Elix® high-throughput water purification systems, providing laboratories with a reliable workflow solution for daily water volumes up to 9,000 liters; and nine new Certified Spiking Solutions® used in laboratories around the world for applied diagnostics and testing. These ready-to-use standard solutions are part of Merck's portfolio of Cerilliant® certified reference materials.

Multiple product line expansions were launched the third quarter, including the human virus and mouse glycerol formats of our Sanger Arrayed CRISPR libraries, the Samplicity® Gen 2 system featuring vacuum-driven filtration for up to eight samples in a fraction of time. Moreover, extensions for the award-winning EZ product family, as well as for the Ready-Plate and the Symbio platforms for industrial microbiology were launched.

Life Science continues to work on building a differentiated portfolio of antibodies and bioactive small molecules, polymers and nanoparticles for drug discovery as well as separation consumables and kits for point-of-use analytical applications. The R&D teams are actively working on projects to improve performance and ergonomics of core filtration products through enhanced design, development of the KitAlysis high-throughput screening platform and improvements to the protein detection workflow.

Performance Materials

We are the undisputed market and technology leader in liquid crystals (LCs) and photoresist materials, which are primarily used in televisions and mobile communication applications. We are also one of the leading suppliers of OLED materials as well as decorative and functional effect pigments. Materials for integrated circuits round off the portfolio.

Display Materials

In the third quarter of 2016, we continued to work with display manufacturers on the further development of high-performance liquid crystal technologies. These include PS-VA (Polymer Stabilized Vertical Alignment) for television applications and the multiple award-winning, energy-saving liquid crystal technology UB-FFS (Ultra-Brightness Fringe-Field Switching) for mobile applications. We are additionally testing UB-FFS for non-mobile applications. In order to further strengthen our position in the increasingly important Chinese market, we opened a research and development laboratory for display materials in Shanghai. The new R&D laboratory will focus on the development of new and improved mixtures for liquid crystal displays manufactured in China. This allows Merck to cover the entire value chain of its customers in China and to improve its competitiveness. In addition, we positioned liquid crystals more strongly as an innovative material for architects. Subsequent to the positive resonance for multiple pilot applications for liquid crystal windows, we decided to press ahead with the development and to set up our own production facility for liquid crystal window modules. Production is to begin at the end of 2017. The development of smart antennas using liquid crystal technology continued to make good progress.

Integrated Circuit Materials

In recent years, the cost per transistor for computer chips has not declined to the same extent as in the past. This is a result of the increasingly high cost of photolithography steps, which for modern chips today already amounts to more than 50% of manufacturing costs. This offers us the opportunity to introduce novel, cost-effective materials that allow our customers to counteract this cost development with innovative processes. In the third quarter, we qualified one of our shrink products with a major customer. Through an additional process step, they make it possible to reduce the size of contact holes or the distance between photoresist lines beyond the capabilities of photolithography. Clever chemistry can thus be applied to get around the laws of optics. The advantage for our customers is that they can more cost-effectively produce the finest structures required by their chip design.

Pigments & Functional Materials

In technical applications, besides classic laser pigments we are continuing to work on additives for 3D laser direct structuring and 3D printing of plastics, as well as additives for conductive coatings. Laser additives enable computer-controlled fabrication of three-dimensional components and their laser-assisted bonding. Further developments include a new light-colored pigment that can be used as a primer in applications such as the automotive sector.

Advanced Technologies

Organic light-emitting diodes (OLEDs) are an outstanding example of our R&D activities in the Advanced Technologies business unit. We again forged ahead with their continuous further development forward in the third quarter of 2016. Our early research is intensifying activities around the fields of hybrid electronics and electronics packaging. First promising results can be seen in the flexible electronics segment, where products are being scaled up for customer use.

COURSE OF BUSINESS AND ECONOMIC POSITION

Merck

Overview – Q3 2016

- Group sales increase by 19.3% to € 3.7 billion
- Healthcare and Life Science post organic sales growth
- Integration of Sigma-Aldrich moving ahead as planned
- Performance Materials maintains high profitability in Q3
- Group EBITDA pre exceptionals up 24.3% to € 1,174 million
- Net financial debt lowered by € 1.0 billion to € 11.6 billion

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Key figures

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
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Margin (% of net sales)	18.2%	18.1%		18.5%	16.5%	
EBITDA	1,110	901	23.3%	3,462	2,551	35.7%
Margin (% of net sales)	29.8%	28.9%		30.9%	27.2%	
EBITDA pre exceptionals	1,174	944	24.3%	3,416	2,696	26.7%
Margin (% of net sales)	31.5%	30.3%		30.5%	28.7%	
Profit after tax	460	366	25.9%	1,368	997	37.2%
Earnings per share (€)	1.05	0.84	25.0%	3.13	2.27	37.9%
Earnings per share pre exceptionals (€)	1.70	1.32	28.8%	4.79	3.74	28.1%
Business free cash flow	1,085	841	29.0%	2,646	2,031	30.3%

Development of net sales and results of operations

In the third quarter of 2016, the Merck Group generated net sales of € 3,724 million (Q3 2015: € 3,120 million), which represents a year-on-year increase of € 603 million or 19.3%. This double-digit sales increase was primarily due to portfolio changes. Organic sales growth for the Group amounted to € 27 million or 0.9% in the third quarter of 2016. While the two largest business sectors Healthcare and Life Science generated organic growth, the Performance Materials business sector recorded organic sales declines. Portfolio changes increased Group sales by € 594 million or 19.0%. This was mainly attributable to the acquisition of Sigma-Aldrich, which closed on November 18, 2015. The impact of foreign exchange (–0.6%) was negligible in the third quarter of 2016.

The double-digit growth rate of Group sales was attributable to the positive performance of the Life Science business sector, which increased its sales by 83.1% to € 1,391 million (Q3 2015: € 759 million). This was due to the effects of the acquisition of Sigma-Aldrich (+77.4%) as well as to strong organic sales growth (+5.7%). Consequently, the share of Group sales attributable to Life Science in the third quarter of 2016 rose significantly by 13 percentage points to 37% (Q3 2015: 24%).

Accounting for 46% of Group sales (Q3 2015: 55%), Healthcare remained the strongest business sector in terms of sales in the third quarter of 2016. Healthcare delivered organic growth of 1.3%, which however was more than offset by negative exchange rate effects and the absence of Kuvan® sales (see explanation under Supplemental Financial Information).

MERCK GROUP

Net sales components by business sector – Q3 2016

€ million/Change in %	Net sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Healthcare	1,689	1.3%	–1.4%	–1.0%	–1.1%
Life Science	1,391	5.7%	–	77.4%	83.1%
Performance Materials	645	–5.8%	1.0%	3.5%	–1.3%
Merck Group	**3,724**	**0.9%**	**–0.6%**	**19.0%**	**19.3%**

Overall, Healthcare sales declined slightly to € 1,689 million (Q3 2015: € 1,708 million).

Net sales by the Performance Materials business sector decreased moderately to € 645 million (Q3 2015: € 653 million). The organic decline in sales was largely mitigated by positive acquisition and exchange rate effects. The business sector thus generated 17% (Q3 2015: 21%) of Group sales.

Driven by strong acquisition effects from the consolidation of Sigma-Aldrich and supported by slightly positive exchange rate effects, the high year-earlier level of net sales in Asia-Pacific rose by a further 13.5% to € 1,218 million (Q3 2015: € 1,074 million). This positive sales development was fueled by the Life Science business sector, which recorded high acquisition-related sales increases as well as very strong organic growth in this region. The percentage contribution to Group sales by the Asia-Pacific region fell by one percentage point to 33% (Q3 2015: 34%).

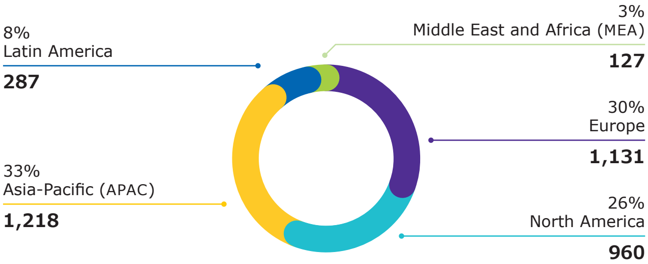
In the third quarter of 2016, sales generated in Europe rose by 13.6% to € 1,131 million (Q3 2015: € 996 million). Here too, the sales increases were mainly attributable to the Life Science business sector. Europe's contribution to Group sales declined to 30% (Q3 2015: 32%).

With net sales of € 960 million (Q3 2015: € 660 million), North America saw the strongest sales increases in both absolute (+€ 300 million) and percentage (+45.4%) terms. Apart from portfolio-related growth (+41.3%), all three business sectors contributed to the moderate organic increase (+4.1%) in Group sales. The contribution to Group sales by North America in the third quarter of 2016 was 26%, representing an increase of five percentage points (Q3 2015: 21%).

MERCK GROUP

Net sales by region – Q3 2016

€ million/% of net sales



Sales in Latin America rose by 7.7% to € 287 million (Q3 2015: € 266 million). Apart from the acquisition effect attributable to Sigma-Aldrich, the business sectors also generated very strong organic growth. Overall, Latin America contributed 8% to Group sales (Q3 2015: 9%).

Net sales in the Middle East and Africa region rose in the third quarter of 2016 by 2.1%, amounting to € 127 million (Q3 2015: € 125 million). The share of Group sales accounted for by this region declined to 3% in the third quarter of 2016 (Q3 2015: 4%).

MERCK GROUP

Net sales components by region – Q3 2016

€ million/Change in %	Net sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	1,131	–2.1%	–1.3%	17.0%	13.6%
North America	960	4.1%	0.1%	41.3%	45.4%
Asia-Pacific (APAC)	1,218	–	1.6%	11.9%	13.5%
Latin America	287	9.7%	–7.6%	5.6%	7.7%
Middle East and Africa (MEA)	127	–3.8%	–1.4%	7.3%	2.1%
Merck Group	**3,724**	**0.9%**	**–0.6%**	**19.0%**	**19.3%**

The growth rate of Group sales in the first nine months of 2016 was 19.3%, corresponding to the growth rate in the third quarter of 2016. In absolute terms, sales rose by € 1,812 million to € 11,194 million (January-September 2015: € 9,381 million). This double-digit growth rate was due to both acquisition effects (+19.3%) and organic sales increases (+3.6%). From January to September 2016, exchange rate movements lowered sales by −3.6% and stemmed mainly from Latin American currencies. The Healthcare and Life Science business sectors respectively contributed 4.7% and 7.6% to the Group's organic sales growth. By contrast, Performance Materials posted an organic sales decline of −4.3%.

Geographically, the Merck Group generated sales increases in nearly all regions. In North America, where the Sigma-Aldrich acquisition had the greatest impact, our sales rose by 50.0% to € 2,863 million (January-September 2015: € 1,909 million). This region thus saw the strongest sales growth. Double-digit growth rates were also achieved in the other regions. The only exception was Latin America, where net sales declined to € 843 million (January-September 2015: € 993 million) owing to negative exchange rate effects.

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

MERCK GROUP

Consolidated Income Statement

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Net sales	**3,724**	**3,120**	**19.3%**	**11,194**	**9,381**	**19.3%**
Cost of sales	−1,251	−939	33.2%	−3,873	−2,927	32.3%
(of which: amortization of intangible assets)[1]	*(−49)*	*(−41)*	*(19.4%)*	*(−137)*	*(−124)*	*(10.7%)*
Gross profit	**2,473**	**2,182**	**13.4%**	**7,321**	**6,454**	**13.4%**
Marketing and selling expenses	−1,098	−976	12.5%	−3,303	−2,944	12.2%
(of which: amortization of intangible assets)[1]	*(−254)*	*(−189)*	*(33.9%)*	*(−767)*	*(−557)*	*(37.7%)*
Administration expenses	−205	−157	30.6%	−620	−503	23.4%
Research and development costs	−443	−417	6.1%	−1,429	−1,314	8.7%
(of which: amortization of intangible assets)[1]	*(−1)*	*(−1)*	*(63.6%)*	*(−3)*	*(−2)*	*(55.5%)*
Other operating expenses and income	−51	−67	−24.5%	106	−148	>100%
Operating result (EBIT)	**676**	**564**	**19.9%**	**2,075**	**1,545**	**34.3%**
Financial result	−67	−81	−18.0%	−256	−223	15.1%
Profit before income tax	**609**	**482**	**26.3%**	**1,819**	**1,322**	**37.5%**
Income tax	−149	−117	27.6%	−451	−326	38.5%
Profit after tax	**460**	**366**	**25.9%**	**1,368**	**997**	**37.2%**
Non-controlling interests	−4	−2	>100%	−8	−8	3.1%
Net income	**457**	**364**	**25.5%**	**1,360**	**989**	**37.5%**

[1] Excluding amortization of internally generated or separately acquired software.

In the third quarter of 2016, the gross profit of the Merck Group rose by € 291 million or 13.4% to € 2,473 million (Q3 2015: € 2,182 million). This increase was attributable to the Life Science business sector, which benefited from favorable business performance as well as the consolidation of Sigma-Aldrich. The gross margin of the Group, i.e. gross profit as a percentage of sales, declined in the third quarter of 2016 to 66.4% (Q3 2015: 69.9%).

The increases in marketing and selling expenses as well as administration expenses were largely acquisition-related. In particular, marketing and selling expenses of the Life Science business sector were burdened by higher amortization of intangible assets stemming from the Sigma-Aldrich purchase price allocation. Group research and development costs increased by 6.1% to € 443 million, likewise mainly as a result of the acquisition of Sigma-Aldrich. The Group research spending ratio (research and development costs as a percentage of sales) was 11.9% in the third quarter of 2016 (Q3 2015: 13.4%). The good business performance of the Life Science business sector drove the positive development of the operating result (EBIT) of the Merck Group. In comparison with the year-earlier quarter, the operating result rose by € 112 million or 19.9% to € 676 million despite higher expenses from additions to provisions within the scope of the Merck Long-Term Incentive Plan (LTIP). The increase in the intrinsic value of Merck Share Units (MSUs) was recognized under the respective functional costs in the income statement depending on the field of activity of the eligible participants.

The negative financial result improved to € –67 million in the third quarter of 2016 (Q3 2015: €–81 million). This was mainly due to the reduction in the time value of Merck Share Units within the scope of the Merck Long Term Incentive Plan as well as to an improvement in the foreign currency result.

Income tax expenses of € 149 million (Q3 2015: € 117 million) led to an effective tax rate of 24.4% (Q3 2015: 24.2%).

Net income, i.e. profit after tax attributable to Merck shareholders, rose by 25.5% to € 457 million in comparison with the year-earlier quarter (Q3 2015: € 364 million), yielding a corresponding improvement in earnings per share to € 1.05 (Q3 2015: € 0.84).

MERCK GROUP

Reconciliation of EBIT to EBITDA pre exceptionals

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Operating result (EBIT)	**676**	**564**	**19.9%**	**2,075**	**1,545**	**34.3%**
Depreciation/amortization/ impairment losses/reversals of impairment losses	434	337	28.9%	1,386	1,006	37.8%
(of which: exceptionals)	*(–)*	*(–)*	*(–)*	*(71)*	*(2)*	*(>100%)*
EBITDA	**1,110**	**901**	**23.3%**	**3,462**	**2,551**	**35.7%**
Restructuring costs	4	2	>100%	7	42	–82.4%
Integration costs/IT costs	48	12	>100%	112	33	>100%
Gains/losses on the divestment of businesses	9	6	40.6%	–319	1	>100%
Acquisition-related exceptionals	1	19	–95.3%	148	58	>100%
Other exceptionals	2	5	–58.0%	5	12	–52.8%
EBITDA pre exceptionals	**1,174**	**944**	**24.3%**	**3,416**	**2,696**	**26.7%**

After adjusting for depreciation, amortization and exceptionals, EBITDA pre exceptionals, the key financial indicator used to steer operating business, rose by 24.3% to € 1,174 million (Q3 2015: € 944 million), resulting in an EBITDA margin pre exceptionals relative to sales of 31.5% (Q3 2015: 30.3%). Earnings per share pre exceptionals (earnings per share adjusted by net of tax effect of exceptionals and amortization of purchased intangible assets) rose by 28.8% to € 1.70 in the third quarter of 2016 (Q3 2015: € 1.32).

In the first nine months of 2016, the operating result (EBIT) of the Merck Group soared by 34.3% to € 2,075 million (January-September 2015: € 1,545 million). This was due particularly to the positive business performance of Life Science. Yet the gain realized on the return of the rights to Kuvan® and a gain on the sale of a minority interest in the first half also had a major impact on this improvement in the operating result. The impairment recognized on the co-commercialization right for Xalkori®, which was incurred in the first half, had a negative effect. EBITDA pre exceptionals amounted to € 3,416 million (January-September 2015: € 2,696 million), thus exceeding the year-earlier amount by € 719 million or 26.7%. This caused the EBITDA margin pre exceptionals to increase to 30.5% (January-September 2015: 28.7%). Earnings per share pre exceptionals climbed by 28.1% to € 4.79 in the first nine months of 2016 (January-September 2015: € 3.74).

Net assets and financial position

MERCK GROUP

Balance sheet structure

	Sept. 30, 2016		Dec. 31, 2015		Change	
	€ million	in %	€ million	in %	€ million	in %
Non-current assets	**29,457**	**80.2%**	**30,657**	**80.7%**	**–1,200**	**–3.9%**
of which:						
Intangible assets	23,978		25,339		–1,361	
Property, plant and equipment	4,017		4,009		8	
Other non-current assets	1,463		1,309		154	
Current assets	**7,285**	**19.8%**	**7,350**	**19.3%**	**–65**	**–0.9%**
of which:						
Inventories	2,621		2,620		1	
Trade accounts receivable	2,851		2,738		113	
Current financial assets	97		227		–130	
Other current assets	848		933		–85	
Cash and cash equivalents	867		832		35	
Total assets	**36,742**	**100.0%**	**38,007**	**100.0%**	**–1,265**	**–3.3%**
Equity	**12,992**	**35.4%**	**12,855**	**33.8%**	**136**	**1.1%**
Non-current liabilities	**15,239**	**41.5%**	**15,769**	**41.5%**	**–530**	**–3.4%**
of which:						
Provisions for pensions and other post-employment benefits	2,701		1,836		865	
Other non-current provisions	802		855		–53	
Non-current financial liabilities	8,585		9,616		–1,032	
Other non-current liabilities	3,151		3,462		–311	
Current liabilities	**8,511**	**23.2%**	**9,383**	**24.7%**	**–872**	**–9.3%**
of which:						
Current provisions	466		535		–69	
Current financial liabilities	4,029		4,097		–67	
Trade accounts payable	1,825		1,921		–96	
Other current liabilities	2,190		2,830		–640	
Total liabilities and equity	**36,742**	**100.0%**	**38,007**	**100.0%**	**–1,265**	**–3.3%**

The total assets of the Merck Group amounted to € 36,742 million as of September 30, 2016. This represents a decline of 3.3% compared with December 31, 2015 (€ 38,007 million). Working capital rose by 6.8% to € 3,684 million (December 31, 2015: € 3,448 million) owing to an increase in trade accounts receivable amid a simultaneous decline in trade accounts payable.

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

MERCK GROUP
Net financial debt

	Sept. 30, 2016	Dec. 31, 2015	Change	
	€ million	€ million	€ million	in %
Bonds and commercial paper	9,527	9,851	–324	–3.3%
Bank loans	2,035	3,006	–971	–32.3%
Liabilities to related parties	820	578	242	41.8%
Loans from third parties and other financial liabilities	111	89	22	24.7%
Liabilities from derivatives (financial transactions)	117	184	–66	–36.1%
Finance lease liabilities	4	5	–1	–21.6%
Total financial liabilities	**12,614**	**13,713**	**–1,099**	**–8.0%**
less				
Cash and cash equivalents	867	832	35	4.2%
Current financial assets	97	227	–130	–57.1%
Net financial debt	**11,649**	**12,654**	**–1,004**	**–7.9%**

MERCK GROUP
Reconciliation of net financial debt

€ million	2016
January 1	**12,654**
Currency translation	–94
Dividend payments to shareholders and to E. Merck[1]	600
Acquisitions[1]	–
Payments from the divestment of assets held for sale and from other divestments[1]	–362
Free cash flow	–1,205
Other	56
September 30	**11,649**

[1] According to the consolidated cash flow statement.

The strong increase in pension provisions to € 2,701 million (December 31, 2015: € 1,836 million) resulted mainly from the required reduction in the discount rate when calculating the present value of the defined benefit obligations. The resulting actuarial losses were recognized in the Consolidated Statement of Comprehensive Income and, taking into account deferred taxes, lowered the equity of the Merck Group as of September 30, 2016. Moreover, dividend payments as well as the translation of assets held in foreign currencies into euros, the reporting currency, lowered equity. The increase in profit after tax to € 1,368 million (January-September 2015: € 997 million) more than offset these equity-lowering effects. Consequently, equity increased to € 12,992 million as of September 30, 2016 (December 31, 2015: € 12,855 million) (see Consolidated Statement of Comprehensive Income and the Consolidated Statement of Changes in Net Equity). The equity ratio improved to 35.4% (December 31, 2015: 33.8%).

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

MERCK GROUP

Free cash flow

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Cash flow from operating activities according to the consolidated cash flow statement	1,067	872	22.4%	1,731	1,477	17.2%
Payments for investments in intangible assets	–37	–116	–67.7%	–82	–136	–39.3%
Payments from the disposal of intangible assets	–	1	–	1	17	–92.1%
Payments for investments in property, plant and equipment	–171	–130	31.3%	–456	–297	53.3%
Payments from the disposal of property, plant and equipment	–	2	–	11	4	>100%
Free cash flow	**859**	**629**	**36.6%**	**1,205**	**1,065**	**13.1%**

Business free cash flow of the Merck Group rose in the third quarter of 2016 by € 244 million to € 1,085 million (Q3 2015: € 841 million). Higher EBITDA pre exceptionals as well as the reductions in inventories and receivables in the third quarter of 2016 led to an increase in this indicator, which was adversely affected by higher investment spending.

MERCK GROUP

Business free cash flow

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
EBITDA pre exceptionals	1,174	944	24.3%	3,416	2,696	26.7%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–203	–136	49.2%	–471	–313	50.4%
Changes in inventories as reported in the consolidated balance sheet	19	–2	>100%	–1	–136	–99.1%
Changes in trade accounts receivable and receivables from royalties and licenses as reported in the consolidated balance sheet	94	35	>100%	–138	–216	–36.2%
Adjustments first-time consolidation of Sigma-Aldrich	–	–	–	–159	–	–
Business free cash flow	**1,085**	**841**	**29.0%**	**2,646**	**2,031**	**30.3%**

In the first nine months of 2016, the Merck Group generated a € 615 million or 30.3% increase in business free cash flow, which amounted to € 2,646 million (January-September 2015: € 2,031 million). This improvement was driven by higher EBITDA pre exceptionals. By contrast, higher cash outflows due to increased investment spending lowered business free cash flow in the reporting period.

Healthcare

HEALTHCARE
Key figures

€ million	Q3 2016	Q3 2015	Change	Jan.–Sept. 2016	Jan.–Sept. 2015	Change
Net sales	1,689	1,708	–1.1%	5,089	5,197	–2.1%
Operating result (EBIT)	375	349	7.6%	1,314	884	48.6%
Margin (% of net sales)	22.2%	20.4%		25.8%	17.0%	
EBITDA	560	538	4.0%	1,947	1,448	34.5%
Margin (% of net sales)	33.1%	31.5%		38.3%	27.9%	
EBITDA pre exceptionals	565	537	5.2%	1,631	1,478	10.3%
Margin (% of net sales)	33.5%	31.5%		32.0%	28.4%	
Business free cash flow	543	460	17.9%	1,308	1,143	14.4%

Development of net sales and results of operations

In the third quarter of 2016, our Healthcare business sector generated organic sales growth of 1.3%. Negative exchange rate effects of –1.4% and a portfolio effect of –1.0% led to a –1.1% decline in net sales to € 1,689 million (Q3 2015: € 1,708 million). Within the Biopharma business, organic sales growth was mainly fueled by drugs to treat infertility (in particular Gonal-f®) and thyroid disorders (Euthyrox®). Rebif®, our top-selling drug, saw an organic sales decline in the third quarter of 2016. Negative exchange rate effects stemmed mainly from the development of Latin American currencies as well as the devaluation of the British pound against the euro. The negative portfolio effect in the third quarter of 2016 was due to the return of the rights to Kuvan® to BioMarin Pharmaceutical at the beginning of the year.

Commission income, which is also included in net sales, rose to € 46 million in the third quarter of 2016 (Q3 2015: € 28 million). The increase was driven in particular by profit-sharing from the co-commercialization of Xalkori® with Pfizer, as well as by commission income in connection with Glucophage® sales by Bristol-Myers Squibb in China.

Europe, the Healthcare business sector's largest region accounting for 36% of sales (Q3 2015: 39%), recorded a –5.4% organic decline in sales. In particular, developments in the third quarter of 2016 were marked by the double-digit organic decrease in sales of Rebif® owing to the ongoing difficult competitive environment. Sales of the oncology drug Erbitux® also declined organically. Positive organic growth of Glucophage® and Euthyrox® could not offset these developments. Including currency headwinds of –1.3 % and a negative portfolio effect of –2.2%, net sales in the region decreased to € 612 million in the third quarter of 2016 (Q3 2015: € 671 million).

North America, the second-largest region in terms of sales, recorded organic growth of 5.1% and an increase in sales to € 400 million in the third quarter of 2016 (Q3 2015: € 380 million). This development was attributable to the continued favorable competitive situation for and double-digit organic growth of Gonal-f®, our product for the treatment of infertility, as well as the organic increase in sales of our growth hormone Saizen®. This more than offset the organic decline in sales of Rebif®. Contributing € 272 million (Q3 2015: € 283 million) to net sales, Rebif® remains the top-selling product in the region. North America's share of sales increased to 24% (Q3 2015: 22%).

The Asia-Pacific region generated organic sales growth of 6.5%, increasing its overall contribution to sales to 22% (Q3 2015: 20%). This development was due especially to the organic sales growth of Euthyrox®, Concor® and our Consumer Health business, as well as higher commission income from Bristol-Myers Squibb for Glucophage®.

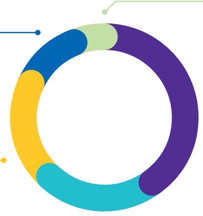
Sales in Latin America totaled € 209 million, which was slightly higher than in the year-earlier quarter (Q3 2015: € 204 million). Solid organic growth of 10.1% was almost canceled out by negative foreign exchange effects of –7.5%. Organic growth was mainly due to the development of Rebif®, Erbitux®, Euthyrox® as well as sales of Neurobion®, one of the core strategic brands of our Consumer Health business.

The Middle East and Africa region recorded an organic decline of –4.0%. Including currency headwinds of –1.2%, this resulted in net sales of € 103 million (Q3 2015: € 110 million). However, double-digit organic growth rates for Rebif®, Erbitux®, Gonal-f® and our Consumer Health business could not offset the organic sales decrease sustained in particular by Glucophage®.

HEALTHCARE

Net sales by region – Q3 2016

€ million/% of net sales of the business sector



HEALTHCARE

Net sales components by region – Q3 2016

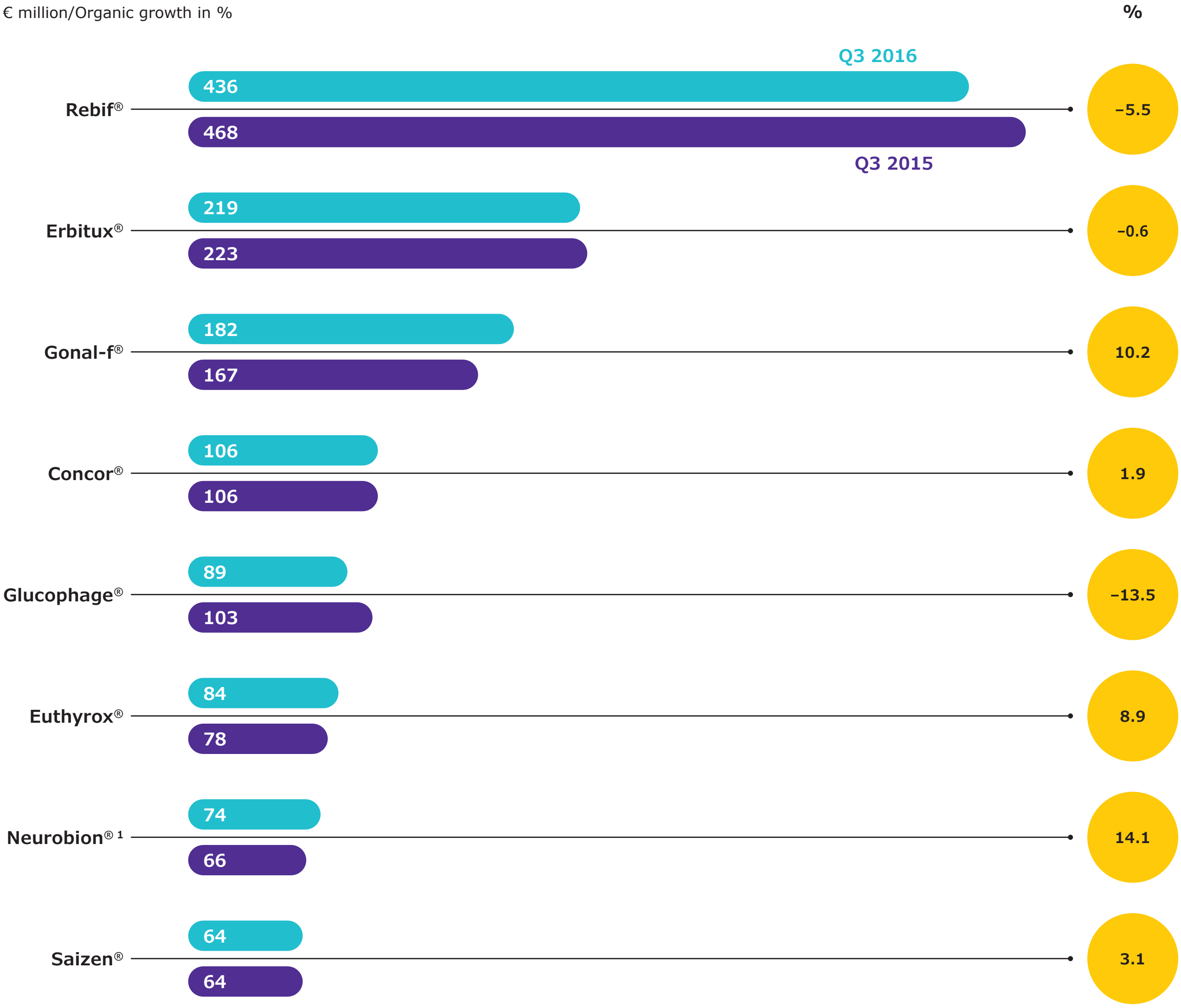
€ million/Change in %	Net sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	612	–5.4%	–1.3%	–2.2%	–8.9%
North America	400	5.1%	0.1%	–	5.2%
Asia-Pacific (APAC)	365	6.5%	0.5%	–0.4%	6.7%
Latin America	209	10.1%	–7.5%	–0.3%	2.3%
Middle East and Africa (MEA)	103	–4.0%	–1.2%	–0.8%	–6.0%
Healthcare	**1,689**	**1.3%**	**–1.4%**	**–1.0%**	**–1.1%**

Sales and the organic growth rates of the key products developed as follows:

HEALTHCARE

Product sales and organic growth

€ million/Organic growth in %



[1] Previous year's figure has been adjusted.

Sales of the drug Rebif®, which is used to treat relapsing forms of multiple sclerosis, declined organically by –5.5% in the third quarter of 2016. Including currency headwinds of –1.2%, this led to sales of € 436 million (Q3 2015: € 468 million). The North America region, which is the largest market for Rebif® accounting for 62% (Q3 2015: 61%) of the product's overall sales, saw sales decrease to € 272 million (Q3 2015: € 283 million). This corresponded to an organic sales decline of –4.0%. Europe, the second-largest region, contributed 29% to Rebif® sales, corresponding to a decline of four percentage points in comparison with the year-earlier quarter (Q3 2015: 33%). Owing to the competitive situation and the timing of a tender in Russia, sales in Europe decreased to € 128 million (Q3 2015: € 155 million), which corresponds to an organic decline of –17.4%. Together, the remaining regions Latin America, Middle East and Africa, and Asia-Pacific accounted for nearly 9% of sales (Q3 2015: 6%). In Latin America, Rebif® generated organic sales growth, mainly as a result of the establishment of a Productive Development Partnership (PDP) program in Brazil.

At € 219 million, sales of the oncology drug Erbitux® fell short of the year-earlier quarter (Q3 2015: € 223 million) owing to organic sales declines of –0.6% and negative exchange rate effects of –1.3%. This development primarily reflects the organic sales decrease of –6.4% in Europe, the key sales market for Erbitux®. This organic decrease was mainly due to the challenging competitive situation as well as the continued mandatory price reductions in several countries. Including negative foreign exchange effects of –1.9%, sales in Europe declined to € 114 million (Q3 2015: € 124 million). The contribution to global Erbitux® sales thus fell overall to 52% (Q3 2015: 56%). The Asia-Pacific region generated sales of € 72 million (Q3 2015: € 68 million) thanks to organic growth of 1.1% and positive exchange rate effects of 5.6%. The region thus accounted for 33% of Erbitux® sales (Q3 2015: 30%). Latin America was the region with the strongest percentage organic growth (+22.0%) and generated sales of € 19 million. This corresponded to the year-earlier quarter (Q3 2015: € 19 million) since the negative foreign exchange impact of –22.5% canceled out the organic increase. Double-digit organic sales growth (+15.0%) was also achieved in the Middle East and Africa region, leading to sales of € 13 million (Q3 2015: € 12 million).

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Product sales and organic growth of Rebif® and Erbitux® by region – Q3 2016

		Total	Europe	North America	Asia-Pacific (APAC)	Latin America	Middle East and Africa (MEA)
Rebif®	€ million	436	128	272	4	19	14
	Organic growth in %	–5.5%	–17.4%	–4.0%	–13.0%	73.9%	26.6%
	% of sales	100%	29%	62%	1%	5%	3%
Erbitux®	€ million	219	114	–	72	19	13
	Organic growth in %	–0.6%	–6.4%	–	1.1%	22.0%	15.0%
	% of sales	100%	52%	–	33%	9%	6%

In the third quarter of 2016, the Healthcare business sector generated sales of € 182 million (Q3 2015: € 167 million) with the fertility treatment Gonal-f®. This reflected double-digit organic sales growth of 10.2% and negative exchange rate effects of –0.9%. At 49.0%, the strongest organic sales growth was achieved in North America, where we benefited from a favorable competitive situation. With sales of € 56 million (Q3 2015: € 38 million), the region is our second-largest market. In Asia-Pacific, our largest market in terms of sales, our sales increased slightly to € 62 million (Q3 2015: € 61 million).

Sales by the Endocrinology franchise, which mainly consists of products to treat growth disorders, amounted to € 96 million, and were thus lower than in the year-earlier quarter (Q3 2015: € 113 million). This was primarily driven by the return of the rights to Kuvan® to BioMarin Pharmaceutical, which was reflected in the portfolio effect of –15.1%. Organic growth of 1.7% was canceled out by negative foreign exchange effects of –2.0%. At € 64 million, sales of the growth hormone Saizen®, the top-selling product in the Endocrinology franchise, were flat in comparison with the previous year (Q3 2015: € 64 million). The good organic increase of 3.1% was countered by negative foreign exchange effects of –3.3%.

Sales by the General Medicine franchise (including CardioMetabolic Care), which commercializes products to treat cardiovascular diseases and diabetes, among other things, remained at the level of the year-earlier quarter, amounting to € 420 million (Q3 2015: € 421 million[1]). Organic growth of 0.8% could not entirely offset the negative foreign exchange impact of –1.2%. Euthyrox® in particular showed very strong organic growth of 8.9% and, including negative exchange rate effects, generated net sales of € 84 million (Q3 2015: € 78 million). This was mainly driven by performance in the Chinese market. As regards Glucophage®, an organic decline of –13.5% and negative exchange rate effects of –0.5% caused sales to fall to € 89 million (Q3 2015: € 103 million). The organic decline in sales was attributable to the postponement of a tender as well as to difficult macroeconomic developments in the Middle East and Africa. By contrast, commission income for Glucophage® in China had a positive effect on the net sales of our General Medicine franchise. These totaled € 28 million (Q3 2015: € 22 million), corresponding to organic growth of 26.1%. Concor® delivered organic growth of 1.9% in the third quarter of 2016. Owing to currency headwinds of –1.5%, sales of € 106 million were flat in comparison with the year-earlier quarter (Q3 2015: € 106 million).

Consumer Health, our business with over-the-counter pharmaceuticals, posted organic growth of 2.1% in the third quarter of 2016. Including negative foreign exchange effects of –2.2%, at € 219 million sales were flat in comparison with the year-earlier quarter (Q3 2015: € 219 million[1]). In particular, the core strategic brand Neurobion® contributed to organic growth, which was once again mainly generated in Asia-Pacific and Latin America.

In the first nine months of 2016, net sales by the Healthcare business sector declined by –2.1% to € 5,089 million

[1]The previous year's figures have been adjusted due to product transfers from Biopharma to Consumer Health in India and Latin America as of January 1, 2016.

(January-September 2015: € 5,197 million). This reflected a 4.7% organic increase in sales, negative exchange rate effects of −5.8% and a portfolio effect of −1.0% resulting from the return of the Kuvan® rights to BioMarin Pharmaceutical. With the exception of Europe, all regions generated organic growth. Good growth rates were primarily achieved in Asia-Pacific, particularly in China, as well as in North America and Latin America. The negative foreign exchange impact was mainly driven by the development of Latin American currencies. Our top-selling product Rebif® generated sales of € 1,300 million in the first nine months of 2016, falling short of the year-earlier period (January-September 2015: € 1,358 million). Organically, sales declined by −2.4% owing to the continued challenging competitive situation, particularly in Europe. Including negative exchange rate effects of −1.9%, Rebif® sales declined by a total of −4.3%. At € 657 million, sales of Erbitux®, the second-largest product, remained at the previous year's level (January-September 2015: € 661 million). Organic growth of 3.4% was canceled out by negative foreign exchange effects of −4.0%. The continued positive development of Gonal-f® in the first nine months of 2016 is worthy of mention. Organic growth of 16.9% was mainly driven by the favorable competitive situation in North America as well as performance in the Chinese market. Exchange rate effects had a negative impact of −3.1%, leading to a total increase in sales of 13.8% to € 578 million (January-September 2015: € 508 million). With organic growth of 14.8% and a negative foreign exchange impact of −7.7%, sales of Euthyrox® also increased, totaling € 243 million (January-September 2015: € 227 million).

In the first nine months of 2016, Consumer Health sales were lower than in the year-earlier period, declining by −7.5% to € 646 million (January-September 2015: € 698 million). Positive organic growth of 2.8% was generated in particular by the business's core strategic brands such as Neurobion®, Dolo-Neurobion® and Femibion®. Nevertheless, this could not compensate for the negative foreign exchange impact of −10.3%, which stemmed mainly from the development of Latin American currencies.

The business sector's results of operations developed as follows:

HEALTHCARE

Results of operations

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Net sales	**1,689**	**1,708**	**−1.1%**	**5,089**	**5,197**	**−2.1%**
Cost of sales	−349	−334	4.6%	−1,010	−1,108	−8.9%
(of which: amortization of intangible assets)[1]	*(–)*	*(–)*	*(–)*	*(−1)*	*(−1)*	*(−25.2%)*
Gross profit	**1,339**	**1,374**	**−2.5%**	**4,079**	**4,089**	**−0.2%**
Marketing and selling expenses	−623	−683	−8.9%	−1,878	−2,073	−9.4%
(of which: amortization of intangible assets)[1]	*(−140)*	*(−145)*	*(−3.3%)*	*(−426)*	*(−423)*	*(0.7%)*
Administration costs	−65	−60	8.6%	−202	−195	3.6%
Research and development costs	−322	−322	0.2%	−1,078	−1,027	5.0%
(of which: amortization of intangible assets)[1]	*(–)*	*(–)*	*(–)*	*(−1)*	*(−1)*	*(1.3%)*
Other operating expenses and income	45	39	14.9%	393	91	>100%
Operating result (EBIT)	**375**	**349**	**7.6%**	**1,314**	**884**	**48.6%**
Depreciation/amortization/impairment losses/reversals of impairment losses	185	189	−2.5%	633	564	12.2%
(of which: exceptionals)	*(–)*	*(–)*	*(–)*	*(71)*	*(2)*	*(>100%)*
EBITDA	**560**	**538**	**4.0%**	**1,947**	**1,448**	**34.5%**
Restructuring costs	2	−1	>100%	3	30	−88.5%
Integration costs/IT costs	4	–	–	10	–	–
Gains/losses on the divestment of businesses	–	–	–	−330	–	–
Acquisition-related exceptionals	–	–	–	–	–	–
Other exceptionals	–	–	–	–	–	–
EBITDA pre exceptionals	**565**	**537**	**5.2%**	**1,631**	**1,478**	**10.3%**

[1] Excluding amortization of internally generated or separately acquired software.

At € 1,339 million, gross profit in the third quarter of 2016 was slightly lower than in the year-earlier quarter (Q3 2015: € 1,374 million), leading to a gross margin of 79.3% (Q3 2015: 80.5%). The decrease in marketing and selling expenses was primarily due to the termination of the agreement between Merck and Pfizer on the co-promotion of Rebif® at the end of 2015. R&D costs amounted to € 322 million and were at the level of the year-earlier quarter, resulting in a research spending ratio of 19.1% (Q3 2015: 18.8%). In the third quarter of 2016, provisions originally set up in connection with the termination of clinical development projects and amounting to around € 40 million were released. Our activities continued to focus on investments in clinical development in immuno-oncology, primarily within the scope of the avelumab program. After adjusting for depreciation, amortization and exceptionals, EBITDA pre exceptionals, the key financial indicator used to steer operating business, rose to € 565 million (Q3 2015: € 537 million). In the third quarter of 2016, the EBITDA margin pre exceptionals increased by two percentage points to 33.5% (Q3 2015: 31.5%).

In the first nine months of 2016, EBITDA pre exceptionals of the Healthcare business sector amounted to € 1,631 million, which was significantly higher than in the year-ago period (January-September 2015: € 1,478 million). This was particularly attributable to the stable gross profit as well as lower marketing and selling expenses. The changes in other operating income and expenses mainly reflect items eliminated in the calculation of EBITDA pre exceptionals. This includes, among other things, the impairment of the co-commercialization right for Xalkori® as well as profits from the return of the rights to Kuvan® to BioMarin Pharmaceutical. At 32.0%, the resulting EBITDA margin pre exceptionals was higher than in the year-earlier period (January-September 2015: 28.4%).

Development of business free cash flow

Business free cash flow of the Healthcare business sector climbed by € 83 million to € 543 million (Q3 2015: € 460 million). This was due mainly to the increase in EBITDA pre exceptionals as well as a lower amount of capital tied up in receivables.

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Business free cash flow

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
EBITDA pre exceptionals	565	537	5.2%	1,631	1,478	10.3%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–83	–76	9.9%	–184	–146	26.0%
Changes in inventories	5	2	>100%	–59	–27	>100%
Changes in trade accounts receivable as well as receivables from royalties and licenses	56	–3	>100%	–80	–162	–50.6%
Business free cash flow	**543**	**460**	**17.9%**	**1,308**	**1,143**	**14.4%**

In the first nine months of 2016, business free cash flow rose to € 1,308 million (January-September 2015: € 1,143 million). Apart from the improvement in EBITDA pre exceptionals, a smaller increase in receivables in comparison with the year-earlier period more than offset higher investments as well as a stronger rise in inventories.

Life Science

LIFE SCIENCE

Key figures

€ million	Q3 2016	Q3 2015	Change	Jan.–Sept. 2016	Jan.–Sept. 2015	Change
Net sales	1,391	759	83.1%	4,217	2,270	85.8%
Operating result (EBIT)	216	97	>100%	486	266	82.6%
Margin (% of net sales)	15.5%	12.7%		11.5%	11.7%	
EBITDA	399	180	>100%	1,026	514	99.7%
Margin (% of net sales)	28.7%	23.7%		24.3%	22.6%	
EBITDA pre exceptionals	424	201	>100%	1,233	585	>100%
Margin (% of net sales)	30.5%	26.5%		29.2%	25.8%	
Business free cash flow	390	213	82.6%	935	438	>100%

Development of sales and results of operations

In the third quarter of 2016, Life Science posted strong organic sales growth of 5.7%, which was mainly driven by the positive performance of Process Solutions. In addition to organic growth, sales increased by 77.4% or € 588 million due to the acquisition of Sigma-Aldrich. Foreign exchange had no impact on sales in the third quarter of 2016. Taking these effects into account, Life Science sales increased overall by 83.1% to € 1,391 million in the third quarter of 2016.

From a geographic perspective, all regions contributed positively to the organic sales growth of Life Science, reflecting sound demand for our products.

Sales in North America, Life Science's largest market, accounted for 36% (Q3 2015: 31%) of the business sector's sales, increased organically by 2.8% driven by Process Solutions and Applied Solutions. Overall, North America sales increased to € 504 million (Q3 2015: € 234 million), including € 263 million from the Sigma-Aldrich acquisition.

In Europe, sales increased organically by 5.5% with Process Solutions posting double-digit organic growth of 12.9% whereas Research Solutions and Applied Solutions recording slight declines. Within Process Solutions, the Filtration & Chromatography business was the primary driver of growth. Overall, sales in Europe increased to € 469 million (Q3 2015: € 274 million), which apart from organic growth includes € 183 million due to the Sigma-Aldrich acquisition, equating to an overall contribution of 34% (Q3 2015: 36%) to Life Science's net sales in the third quarter.

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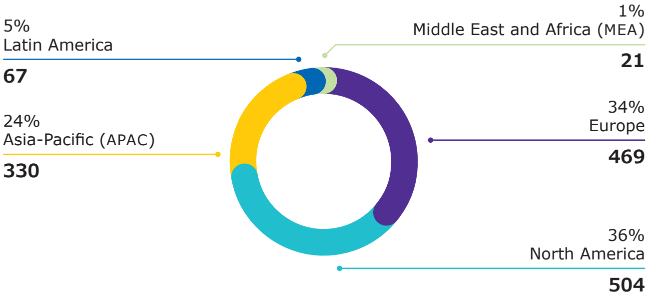
Net sales by region – Q3 2016

€ million/% of net sales of the business sector



In Asia-Pacific, Life Science generated very strong organic growth of 9.9% with all business areas contributing favorably in this region. The main driver of the growth was Process Solutions, especially Purification sales. Overall, sales in Asia-Pacific increased to € 330 million (Q3 2015: € 186 million) which in addition to organic growth includes € 118 million from the legacy Sigma-Aldrich business. This represents an overall contribution of 24% (Q3 2015: 24%) to Life Science's net sales in the third quarter.

In Latin America, sales grew by 6.5% organically mainly driven by Applied Solutions, especially the Biomonitoring and Analytical businesses. In addition to organic growth, legacy Sigma-Aldrich contributed € 15 million to the total of € 67 million (Q3 2015: € 52 million). This included adverse foreign exchange effects of –7.7%. Latin America thus accounted for 5% (Q3 2015: 7%) of Life Science's net sales in the third quarter of 2016.

With organic growth of 0.2%, sales in the Middle East and Africa were essentially flat compared with the year-earlier quarter. Net sales for the region were € 21 million (Q3 2015: € 12 million), € 9 million of which was attributable to Sigma-Aldrich.

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Net sales components by region – Q3 2016

€ million/Change in %	Net sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	469	5.5%	–1.3%	66.6%	70.8%
North America	504	2.8%	–	112.0%	114.9%
Asia-Pacific (APAC)	330	9.9%	4.2%	63.4%	77.5%
Latin America	67	6.5%	–7.7%	29.7%	28.5%
Middle East and Africa (MEA)	21	0.2%	–3.1%	70.9%	68.0%
Life Science	**1,391**	**5.7%**	**–**	**77.4%**	**83.1%**

The two top-selling business areas, Process Solutions and Research Solutions, fueled the increase in sales in the third quarter of 2016.

The Process Solutions business area, which markets products and services for the pharmaceutical production value chain, generated organic sales growth of 10.1%. Including Sigma-Aldrich sales (€ 146 million) net sales amounted to € 540 million (Q3 2015: € 358 million). The organic increase was driven by the Filtration & Chromatography and single-use solutions businesses. Consequently, Process Solutions generated 39% (Q3 2015: 47%) of the business sector's net sales.

Organically, sales by the Research Solutions business area, which provides products and services to support life science research for pharmaceutical, biotechnology and academic research laboratories, were flat compared with the year-earlier quarter. In the third quarter of 2016, Research Solutions contended with weak demand in the Devices business and a challenging competitive environment in the Chemistry business specifically in North America. However, with the inclusion of legacy Sigma-Aldrich sales (€ 337 million), sales rose to € 495 million (Q3 2015: € 159 million), representing 36% (Q3 2015: 21%) of Life Science net sales.

Applied Solutions generated moderate organic sales growth of 3.3% with its broad range of products for researchers and scientific laboratories. Taking Sigma-Aldrich sales into account (€ 105 million), net sales amounted to € 355 million (Q3 2015: € 242 million). The sales performance of Applied Solutions was primarily driven by the Analytical and Biomonitoring portfolios.

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Net sales components by business area[1] – Q3 2016

€ million/Change in %	Net sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Process Solutions	540	10.1%	0.1%	40.7%	50.8%
Research Solutions	495	–0.4%	–0.3%	212.3%	211.6%
Applied Solutions	355	3.3%	–	43.3%	46.6%

[1] The business areas were restructured in the context of the Sigma-Aldrich acquisition.

During the first nine months of 2016, Life Science sales increased to € 4,217 million (January-September 2015: € 2,270 million). Apart from very strong organic growth of 7.6%, sales rose by 79.5% or € 1,806 million due to the acquisition of Sigma-Aldrich, whereas foreign exchange had an adverse impact of –1.4%. All business areas contributed favorably to organic growth, with the Process Solutions business area posting double-digit growth.

Process Solutions generated organic sales growth of 13.1% for the first nine months of 2016. Including the increase in sales of 40.3% due to the Sigma-Aldrich acquisition and a negative foreign exchange effect of –0.8%, sales amounted to € 1,604 million (January-September 2015: € 1,051 million). Process Solutions thus accounted for 38% (January-September 2015: 46%) of Life Science net sales. While the overall Process Solutions portfolio performed very well, the primary drivers were the Filtration & Chromatography and the Process Chemicals & Systems portfolios.

Research Solutions generated organic growth of 1.6% for the first nine months of 2016. Taking into account the increase in sales of € 1,058 million due to the Sigma-Aldrich acquisition and the adverse foreign exchange impact of –2.1%, sales amounted to € 1,540 million (January-September 2015: € 484 million). Research Solutions accounted for 37% (January-September 2015: 21%) of Life Science net sales. Organic sales growth was driven by the Biology and Chemistry portfolios.

Applied Solutions generated organic growth of 3.6% for the first nine months of 2016. Taking into account the increase in sales of 44.1% due to the Sigma-Aldrich acquisition and the adverse foreign exchange impact of –1.7%, sales amounted to € 1,073 million (January-September 2015: € 735 million). Applied Solutions accounted for 25% (January-September 2015: 33%) of Life Science net sales. Organic growth for the first nine months of 2016 was driven by the Analytical and Biomonitoring portfolios whereas the Applied Systems portfolio struggled due to soft market demand.

The results of operations developed as follows:

LIFE SCIENCE

Results of operations

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Net sales	**1,391**	**759**	**83.1%**	**4,217**	**2,270**	**85.8%**
Cost of sales	–608	–318	91.1%	–2,000	–965	>100%
(of which: amortization of intangible assets)[1]	*(–18)*	*(–12)*	*(44.0%)*	*(–48)*	*(–37)*	*(28.8%)*
Gross profit	**783**	**441**	**77.3%**	**2,217**	**1,305**	**69.8%**
Marketing and selling expenses	–414	–238	74.2%	–1,248	–715	74.5%
(of which: amortization of intangible assets)[1]	*(–109)*	*(–41)*	*(>100%)*	*(–327)*	*(–124)*	*(>100%)*
Administration costs	–56	–30	87.9%	–176	–88	99.3%
Research and development costs	–63	–45	40.4%	–190	–139	36.7%
(of which: amortization of intangible assets)[1]	*(–)*	*(–)*	*(–)*	*(–)*	*(–)*	*(–)*
Other operating expenses and income	–34	–32	5.3%	–117	–97	20.9%
Operating result (EBIT)	**216**	**97**	**>100%**	**486**	**266**	**82.6%**
Depreciation/amortization/impairment losses/reversals of impairment losses	183	83	>100%	540	247	>100%
(of which: exceptionals)	*(–)*	*(–)*	*(–)*	*(–)*	*(–)*	*(–)*
EBITDA	**399**	**180**	**>100%**	**1,026**	**514**	**99.7%**
Restructuring costs	–	–	–	1	4	–63.9%
Integration costs/IT costs	23	3	>100%	60	11	>100%
Gains/losses on the divestment of businesses	–	–	–	–	–	–
Acquisition-related exceptionals	1	18	–95.0%	146	57	>100%
Other exceptionals	–	–	–	–	–	–
EBITDA pre exceptionals	**424**	**201**	**>100%**	**1,233**	**585**	**>100%**

[1] Excluding amortization of internally generated or separately acquired software.

Higher net sales and the effects of the consolidation of Sigma-Aldrich led to an increase of 77.3% in gross profit, which amounted to € 783 million. As Life Science continues to integrate Sigma-Aldrich, spending is being closely monitored and there is a strong focus on the execution of synergy initiatives. In the third quarter of 2016, the increases in marketing and selling expenses, administration expenses and R&D costs were mainly due to the consolidation of Sigma-Aldrich.

In comparison with year-earlier quarter, the operating result (EBIT) of Life Science rose by € 119 million to € 216 million. After eliminating depreciation and amortization, and adjusted for exceptionals, EBITDA pre exceptionals, the most important performance indicator, soared by 110.7% to € 424 million (Q3 2015: € 201 million).

In the first nine months of 2016, EBITDA pre exceptionals of the Life Science business sector rose by € 648 million to € 1,233 million (January-September 2015: € 585 million), reflecting very strong organic growth and the integration of Sigma-Aldrich. The sharp increase in EBITDA pre exceptionals was due to the strong performance of both legacy life science businesses of Merck and Sigma-Aldrich.

Development of business free cash flow

In the third quarter of 2016, Life Science generated business free cash flow of € 390 million, representing an increase of 82.6%. The strong outcome was driven by the integration of Sigma-Aldrich as well as EBITDA pre exceptionals and close management of trade accounts receivable.

LIFE SCIENCE

Business free cash flow

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
EBITDA pre exceptionals	424	201	>100%	1,233	585	>100%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–68	–28	>100%	–166	–76	>100%
Changes in inventories	–17	–1	>100%	58	–52	>100%
Changes in trade accounts receivable as well as receivables from royalties and licenses	50	41	22.1%	–34	–19	80.4%
Adjustments first-time consolidation of Sigma-Aldrich	–	–	–	–156	–	–
Business free cash flow	**390**	**213**	**82.6%**	**935**	**438**	**>100%**

In the first nine months of 2016, the business sector's business free cash flow more than doubled to € 935 million in comparison with the year-earlier period (January-September 2015: € 438 million). This was mainly driven by the integration of Sigma-Aldrich.

Performance Materials

PERFORMANCE MATERIALS

Key figures

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Net sales	645	653	–1.3%	1,888	1,914	–1.4%
Operating result (EBIT)	213	233	–8.4%	613	685	–10.5%
Margin (% of net sales)	33.1%	35.7%		32.5%	35.8%	
EBITDA	274	292	–6.3%	808	864	–6.4%
Margin (% of net sales)	42.5%	44.7%		42.8%	45.1%	
EBITDA pre exceptionals	282	298	–5.4%	829	870	–4.7%
Margin (% of net sales)	43.7%	45.5%		43.9%	45.4%	
Business free cash flow	271	265	2.5%	729	717	1.7%

Development of net sales and results of operations

In the third quarter of 2016, net sales of the Performance Materials business sector decreased by –1.3% to € 645 million (Q3 2015: € 653 million). This was mainly due to organic sales declines (–5.8%) as Display Materials did not reach the previous year's level. The sales performance of the SAFC Hitech business of Sigma-Aldrich acquired in November 2015 (+3.5%) as well as slightly positive foreign exchange effects of 1.0% only partially compensated for the organic decline in sales.

The Display Materials business unit, which comprises the Liquid Crystals business and complementary materials, represented more than 50% of the overall net sales of Performance Materials. This business unit saw a significant organic decrease in sales, but continued to defend its market leadership position. The sales decline in the third quarter was mainly also due to a strong year-earlier comparative base. Despite signs of a recovery compared with the two preceding quarters of 2016, negative effects of destocking by display industry customers were still seen. The volume decline of the mature LC technology TN-TFT continued to a more moderate extent.

The Integrated Circuit Materials (ICM) business unit includes the business with materials used to manufacture integrated circuits. This business unit delivered strong organic growth, to which all businesses contributed in equal measure. Special mention should be made of the positive development of the business with deposition materials for chip production, which was added to the product portfolio as a result of the acquisition of the SAFC Hitech business of Sigma-Aldrich.

The Pigments & Functional Materials business unit generated solid organic growth in the third quarter of 2016. The entire range of cosmetic actives showed double-digit sales growth. Xirallic® pigments, which are mainly used in automotive coatings, also contributed significantly to growth.

The growth dynamics of the Advanced Technologies business unit slowed down in the third quarter of 2016. Sales volumes of OLED materials were limited due to delays in the availability of additional production capacities for OLED displays.

With an 81% share (Q3 2016: 83%), the Asia-Pacific region once again accounted for the vast majority of the business sector's net sales. This is due to the concentration of customers for display and integrated circuit materials in Asia. In this region, the business sector’s sales declined to € 523 million (Q3 2015: € 545 million). The organic decline in sales was –7.5% and was attributable to Display Materials. The sales increases achieved by both IC Materials and Pigments & Functional Materials could not compensate for this.

In North America, the sharp increase in net sales to € 57 million was fueled by the SAFC Hitech business of Sigma-Aldrich (Q3 2015: € 46 million). Sales also saw a slight organic increase (+2.4%). This was mainly driven by the double-digit growth of the business with active ingredients for the cosmetics industry.

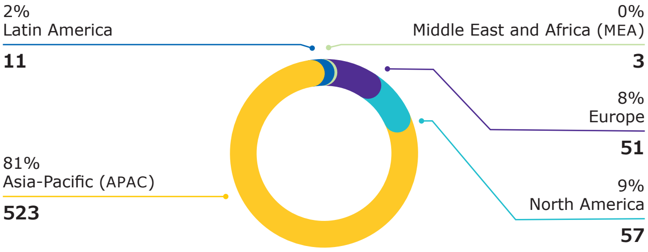
In Europe, Performance Materials generated sales of € 51 million (Q3 2015: € 50 million). The sales increase recorded by IC Materials was nearly canceled out by the declines in Pigments & Functional Materials.

Since they account for a low proportion of sales, the two regions Latin America and Middle East and Africa played a subordinate role. Whereas Latin America continued to show double-digit organic growth at a low overall level, the sales improvement in the Middle East and Africa was exclusively acquisition-related.

PERFORMANCE MATERIALS

Net sales by region – Q3 2016

€ million/% of net sales of the business sector



PERFORMANCE MATERIALS

Net sales components by region – Q3 2016

€ million/Change in %	Net sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	51	0.4%	–0.4%	2.7%	2.7%
North America	57	2.4%	–	21.5%	23.9%
Asia-Pacific (APAC)	523	–7.5%	1.4%	2.0%	–4.1%
Latin America	11	16.9%	–8.3%	–	8.7%
Middle East and Africa (MEA)	3	–15.9%	–1.9%	51.5%	33.7%
Performance Materials	**645**	**–5.8%**	**1.0%**	**3.5%**	**–1.3%**

In the first nine months of 2016, net sales of Performance Materials declined slightly by –1.4% to € 1,888 million (January-September 2015: € 1,914 million). This development was mainly attributable to organic sales decreases of –4.3% resulting from the Display Materials business. At –0.2%, the exchange rate effect was negligible, whereas the SAFC Hitech business of Sigma-Aldrich acquired in November 2015 made a positive contribution of 3.1% to sales.

In the first nine months of 2016, sales volumes of liquid crystals were impacted by inventory adjustments by customers in the display industry as well as the decline in volumes of the mature LC technology TN-TFT. Consequently, Display Materials saw a significant organic decrease in sales.

In the first nine months of 2016, the sales contributions by the Integrated Circuit Materials, Pigments & Functional Materials and Advanced Technologies business units increased significantly. The Performance Materials business sector also generated double-digit organic sales growth with OLED materials and cosmetic actives. Within the Integrated Circuit Materials business unit, high single-digit growth rates were achieved with dielectric materials for chip production and materials for chemical-mechanical planarization (CMP) of silicon wafers.

The results of operations developed as follows:

PERFORMANCE MATERIALS

Results of operations

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Net sales	**645**	**653**	**–1.3%**	**1,888**	**1,914**	**–1.4%**
Cost of sales	–295	–287	2.6%	–864	–854	1.1%
(of which: amortization of intangible assets)[1]	*(–31)*	*(–28)*	*(8.9%)*	*(–89)*	*(–86)*	*(3.2%)*
Gross profit	**350**	**366**	**–4.4%**	**1,024**	**1,059**	**–3.3%**
Marketing and selling expenses	–59	–54	8.7%	–175	–154	14.0%
(of which: amortization of intangible assets)[1]	*(–5)*	*(–3)*	*(38.3%)*	*(–14)*	*(–10)*	*(32.7%)*
Administration costs	–14	–16	–10.9%	–45	–48	–6.3%
Research and development costs	–55	–50	11.1%	–157	–145	7.9%
(of which: amortization of intangible assets)[1]	*(–1)*	*(–)*	*(–)*	*(–2)*	*(–1)*	*(>100%)*
Other operating expenses and income	–8	–13	–37.6%	–35	–28	23.6%
Operating result (EBIT)	**213**	**233**	**–8.4%**	**613**	**685**	**–10.5%**
Depreciation/amortization/impairment losses/reversals of impairment losses	60	59	2.2%	195	179	9.2%
(of which: exceptionals)	*(–)*	*(–)*	*(–)*	*(–)*	*(–)*	*(–)*
EBITDA	**274**	**292**	**–6.3%**	**808**	**864**	**–6.4%**
Restructuring costs	–	1	–	1	2	–63.7%
Integration costs/IT costs	8	4	91.5%	17	8	>100%
Gains/losses on the divestment of businesses	–	–	–	–	–6	–
Acquisition-related exceptionals	–	1	–	3	2	59.6%
Other exceptionals	–	–	–	–	–	–
EBITDA pre exceptionals	**282**	**298**	**–5.4%**	**829**	**870**	**–4.7%**

[1] Excluding amortization of internally generated or separately acquired software.

In the third quarter of 2016, gross profit was € 16 million below the year-earlier level, resulting in a gross margin of 54.3% (Q3 2015: 56.1%). The operating result (EBIT) decreased by € 20 million to € 213 million in the third quarter of 2016 (Q3 2015: € 233 million). This was due to the lower gross margin as well as the amortization of intangible assets from the SAFC Hitech business of Sigma-Aldrich. This acquired business also led to higher marketing and selling expenses as well as additional research spending. EBITDA pre exceptionals of € 282 million reflected the lower gross margin and declined by € 16 million (Q3 2015: € 298 million). At 43.7%, the EBITDA margin pre exceptionals was below the previous year's high level (Q3 2015: 45.5%).

In the first nine months of 2016, EBITDA pre exceptionals of the Performance Materials business sector amounted to € 829 million, representing a decline of € 41 million. Expressed as a percentage of sales, this resulted in an EBITDA margin pre exceptionals of 43.9% (January-September 2015: 45.4%).

Development of business free cash flow

In the third quarter of 2016, business free cash flow of the Performance Materials business sector increased slightly to € 271 million (Q3 2015: € 265 million). This improvement was mainly attributable to significant inventory reductions, which more than offset lower EBITDA pre exceptionals and higher capital spending.

PERFORMANCE MATERIALS

Business free cash flow

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
EBITDA pre exceptionals	282	298	–5.4%	829	870	–4.7%
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–28	–22	28.1%	–71	–55	28.2%
Changes in inventories	31	–3	>100%	–	–57	–
Changes in trade accounts receivable as well as receivables from royalties and licenses	–13	–8	62.5%	–26	–41	–36.5%
Adjustments first-time consolidation of Sigma-Aldrich	–	–	–	–3	–	–
Business free cash flow	**271**	**265**	**2.5%**	**729**	**717**	**1.7%**

In the first nine months of 2016, business free cash flow also rose slightly by € 12 million to € 729 million (January-September 2015: € 717 million).

Corporate and Other

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

CORPORATE AND OTHER

Key figures

€ million	**Q3 2016**	Q3 2015	Change	**Jan.–Sept. 2016**	Jan.–Sept. 2015	Change
Operating result (EBIT)	–128	–115	11.8%	–338	–290	16.4%
EBITDA	–122	–109	11.4%	–319	–275	16.3%
EBITDA pre exceptionals	–97	–92	5.2%	–277	–236	17.2%
Business free cash flow	–119	–98	22.2%	–325	–267	21.9%

In the third quarter of 2016, administration expenses reported under Corporate and Other amounted to € 71 million (Q3 2015: € 52 million). Other operating expenses (net) decreased to € –54 million (Q3 2015: € –61 million). Taking the development of these two items into account, in the third quarter of 2016 EBIT amounted to € –128 million (Q3 2015: € –115 million) and EBITDA was € –122 million (Q3 2015: € –109 million). Adjusted for exceptionals, EBITDA pre exceptionals totaled € –97 million (Q3 2015: € -92 million). The increase in negative EBITDA pre exceptionals and higher capital spending impacted the development of business free cash flow, which amounted to € –119 million in the third quarter of 2016 (Q3 2015: € –98 million).

In the first nine months of 2016, EBITDA pre exceptionals of Corporate and Other totaled € –277 million (January-September 2015: € –236 million). The change in this indicator was mainly attributable to the increase in administration expenses and higher other operating expenses (net). Business free cash flow, which increased to € –325 million (January-September 2015: € –267 million), particularly reflected the development of EBITDA pre exceptionals and higher capital spending.

OUTLOOK

In the third quarter, our business developed in line with our expectations. Therefore, we continue to expect a moderate organic increase in net sales of the Merck Group for 2016 in comparison with the previous year. Furthermore, we maintain our forecast for portfolio-related sales growth in the low double-digit percentage range as a consequence of the acquisition of Sigma-Aldrich. The negative exchange rate effect on our net sales this year still should range between –3% and –5%, mainly driven by the currency devaluations in Latin America. We are raising our earnings expectations and now assume EBITDA pre exceptionals to range between € 4,450 million and € 4,600 million (previously € 4,250 million to € 4,400 million). We now expect business free cash flow to range between € 3,250 million and € 3,360 million (previously: € 3,140 million to € 3,250 million).

For our Healthcare business sector, our forecast for solid organic sales growth in 2016 compared with the previous year remains unchanged. In North America, the very positive performance of the Fertility franchise continued as expected in the third quarter owing to the favorable competitive environment, even if the growth rate was not as strong as in the first half due to the higher prior-year comparable basis. Nevertheless, for the remainder of the year we do not expect a significant slowdown in growth. Additionally, we still expect to see continued strong dynamics in our growth markets. Overall, we therefore remain confident that it will be possible to more than offset the expected decline in sales of Rebif® in 2016.

For EBITDA pre exceptionals of the Healthcare business sector, we are raising our forecast for 2016 to between € 2,100 million and € 2,200 million in 2016 (previously: € 1,950 million to € 2,050 million). This significant adjustment of our forecast is due on the one hand to the release of around € 40 million in provisions in the third quarter for research projects terminated in previous years. On the other hand, research and development costs rose to a lesser extent than originally planned in the third quarter. The reasons range from good cost management of our research projects and changes in individual clinical trials up to conservative cost budgeting at the beginning of the year. Against this background, we are now assuming that in the remaining months of the year, the cost increase will be less pronounced than previously planned.

In the third quarter, the positive performance of the Life Science business sector continued. This was once again especially due to the Process Solutions business area, which benefited from unchanged good demand from our customers in the biopharmaceutical industry. As expected however, due to the prior-year comparable basis, which is now high, the organic growth rates in the third quarter were slightly lower in comparison with the first half. Consequently, our assumption of organic sales growth in the mid to high single-digit percentage range for 2016 remains unchanged. Owing to the good margin development in the third quarter as well as the faster realization of the planned synergies in connection with our acquisition of Sigma-Aldrich, we are specifying our earnings forecast for 2016. We now expect EBITDA pre exceptionals of € 1,640 million to € 1,670 million (previously: € 1,620 million to € 1,670 million).

For our Performance Materials business sector, we continue to expect a moderate organic decline in net sales compared with the previous year. Inventories in the display industry, the reduction of which still visibly impacted our business in the third quarter of 2016, have meanwhile in our view reached a more sustainable level again. This should – as we already expected in the preceding quarter – lead to a normalization of our business in the further course of the year. The price declines typical for these markets will continue to have an impact on our sales. For EBITDA pre exceptionals, we continue to forecast a target corridor of € 1,100 million to € 1,150 million. Despite the noticeable adaptation processes in the display industry in the first three quarters of 2016, this earnings level reflects the core strengths of Performance Materials: four strong and highly attractive business units that have led to a stronger portfolio diversification than in the past. All businesses have strong market positions and high innovative strength. In addition, our active cost management enables to us to readily absorb fluctuations in sales.

Corporate and Other continues to focus on implementing strategic Group initiatives. We confirm our forecast for 2016 and expect EBITDA pre exceptionals of between € –370 million and € –400 million.

MERCK GROUP

Forecast for FY 2016

€ million	Net sales	EBITDA pre exceptionals	Business free cash flow
Merck Group	~ 14,900 to 15,100	~ 4,450 to 4,600	~ 3,250 to 3,360
Healthcare	Solid organic growth, slightly negative portfolio effect due to the divestment of Kuvan	~ 2,100 to 2,200	~ 1,590 to 1,670
Life Science	Organic growth in the mid to high single–digit percentage range, portfolio effect in the high double–digit percentage range as a result of the Sigma–Aldrich acquisition	~ 1,640 to 1,670	~ 1,180 to 1,230
Performance Materials	Moderate decline	~ 1,100 to 1,150	~ 930 to 980
Corporate and Other	–	~ –370 to –400	~ –460 to –490

Earnings per share pre exceptionals: € 6.15 to € 6.40

Full-year FX assumptions for 2016:
€ 1 = US$ 1.09 to 1.12
€ 1 = JPY 120
€ 1 = CHF 1.10

SUPPLEMENTAL FINANCIAL INFORMATION

Consolidated Income Statement

€ million	**Q3 2016**	Q3 2015	**Jan.–Sept. 2016**	Jan.–Sept. 2015
Net sales	**3,724**	**3,120**	**11,194**	**9,381**
Cost of sales	–1,251	–939	–3,873	–2,927
(of which: amortization of intangible assets)[1]	*(–49)*	*(–41)*	*(–137)*	*(–124)*
Gross profit	**2,473**	**2,182**	**7,321**	**6,454**
Marketing and selling expenses	–1,098	–976	–3,303	–2,944
(of which: amortization of intangible assets)[1]	*(–254)*	*(–189)*	*(–767)*	*(–557)*
Administration expenses	–205	–157	–620	–503
Research and development costs	–443	–417	–1,429	–1,314
(of which: amortization of intangible assets)[1]	*(–1)*	*(–1)*	*(–3)*	*(–2)*
Other operating income	129	89	741	361
Other operating expenses	–180	–156	–634	–509
Operating result (EBIT)	**676**	**564**	**2,075**	**1,545**
Financial result	–67	–81	–256	–223
Profit before income tax	**609**	**482**	**1,819**	**1,322**
Income tax	–149	–117	–451	–326
Profit after tax	**460**	**366**	**1,368**	**997**
of which: attributable to Merck KGaA shareholders (net income)	457	364	1,360	989
of which: attributable to non-controlling interests	4	2	8	8
Earnings per share (€)				
basic	1.05	0.84	3.13	2.27
diluted	1.05	0.84	3.13	2.27

[1] Excluding amortization of internally generated or separately acquired software.

Consolidated Statement of Comprehensive Income

€ million	**Q3 2016**	Q3 2015	**Jan.–Sept. 2016**	Jan.–Sept. 2015
Profit after tax	**460**	**366**	**1,368**	**997**
Items of other comprehensive income that will not be reclassified to profit or loss in subsequent periods:				
Remeasurement of the net defined benefit liability				
Changes in remeasurement	–204	–200	–824	48
Tax effect	28	28	127	–23
Changes recognized in equity	–176	–172	–697	25
	–176	–172	–697	25
Items of other comprehensive income that may be reclassified to profit or loss in subsequent periods:				
Available-for-sale financial assets				
Fair value adjustments	–2	–5	22	14
Reclassification to profit or loss	–	–	–31	–
Tax effect	1	2	2	–1
Changes recognized in equity	–1	–3	–6	13
Derivative financial instruments				
Fair value adjustments	–24	–77	–14	561
Reclassification to profit or loss	12	20	35	49
Reclassification to assets	–	–	–	–
Tax effect	8	–9	1	14
Changes recognized in equity	–5	–66	22	624
Exchange differences on translating foreign operations				
Changes taken directly to equity	–142	–6	–337	694
Reclassification to profit or loss	–	–	–74	–
Changes recognized in equity	–142	–6	–411	694
	–148	–75	–395	1,331
Other comprehensive income	**–324**	**–247**	**–1,093**	**1,357**
Comprehensive income	**136**	**119**	**275**	**2,353**
of which: attributable to Merck KGaA shareholders	132	120	268	2,344
of which: attributable to non-controlling interests	4	–1	7	9

Consolidated Balance Sheet

€ million	Sept. 30, 2016	Dec. 31, 2015
Non-current assets		
Intangible assets	23,978	25,339
Property, plant and equipment	4,017	4,009
Non-current financial assets	189	131
Other non-current assets	126	128
Deferred tax assets	1,148	1,050
	29,457	**30,657**
Current assets		
Inventories	2,621	2,620
Trade accounts receivable	2,851	2,738
Current financial assets	97	227
Other current assets	541	496
Income tax receivables	307	391
Cash and cash equivalents	867	832
Assets held for sale	–	46
	7,285	**7,350**
Total assets	**36,742**	**38,007**
Total equity		
Equity capital	565	565
Reserves	10,206	9,679
Gains/losses recognized in equity	2,149	2,543
Equity attributable to Merck KGaA shareholders	**12,920**	**12,787**
Non-controlling interests	72	68
	12,992	**12,855**
Non-current liabilities		
Provisions for pensions and other post-employment benefits	2,701	1,836
Other non-current provisions	802	855
Non-current financial liabilities	8,585	9,616
Other non-current liabilities	471	609
Deferred tax liabilities	2,680	2,853
	15,239	**15,769**
Current liabilities		
Current provisions	466	535
Current financial liabilities	4,029	4,097
Trade accounts payable	1,825	1,921
Income tax liabilities	814	1,011
Other current liabilities	1,377	1,819
Liabilities directly related to assets held for sale	–	–
	8,511	**9,383**
Total equity and liabilities	**36,742**	**38,007**

Consolidated Cash Flow Statement

€ million	**Q3 2016**	Q3 2015	**Jan.–Sept. 2016**	Jan.–Sept. 2015
Profit after tax	**460**	**366**	**1,368**	**997**
Depreciation/amortization/impairment losses/reversals of impairment losses	434	337	1,386	1,006
Changes in inventories	10	–41	–31	–136
Changes in trade accounts receivable	97	–25	–111	–175
Changes in trade accounts payable	25	59	–23	107
Changes in provisions	4	11	–42	32
Changes in other assets and liabilities	36	153	–396	–348
Neutralization of gain/loss on disposals of assets	1	–	–421	–22
Other non-cash income and expenses	–	12	–	17
Net cash flows from operating activities	**1,067**	**872**	**1,731**	**1,477**
thereof: from discontinued operations	**–**	**–**	**–**	**–**
Payments for investments in intangible assets	–37	–116	–82	–136
Payments from the disposal of intangible assets	–	1	1	17
Payments for investments in property, plant and equipment	–171	–130	–456	–297
Payments from the disposal of property, plant and equipment	–	2	11	4
Payments for investments in financial assets	–73	–52	–294	–1,671
Payments for acquisitions less acquired cash and cash equivalents	–	132	–	1,159
Payments from the disposal of other financial assets	57	580	405	3,595
Payments from other divestments	1	–	22	–
Payments from the divestment of assets held for sale	–	–	340	–
Net cash flows from investing activities	**–223**	**418**	**–53**	**2,670**
thereof: from discontinued operations	**1**	**–**	**24**	**–**
Dividend payments to Merck KGaA shareholders	–	–	–136	–129
Dividend payments to non-controlling interests	–1	–	–3	–3
Dividend payments to E. Merck KG	–	–	–461	–435
Payments from new borrowings of financial liabilities from E. Merck KG	80	80	881	653
Repayments of financial liabilities to E. Merck KG	–141	–141	–639	–452
Payments from the issuance of bonds	–	2,042	–	5,756
Repayments of bonds	–	–	–212	–1,350
Changes in other financial liabilities	–640	236	–1,061	291
Net cash flows from financing activities	**–702**	**2,217**	**–1,631**	**4,331**
thereof: from discontinued operations	**–**	**–**	**–**	**–**
Changes in cash and cash equivalents	**142**	**3,507**	**46**	**8,478**
Changes in cash and cash equivalents due to currency translation	3	–49	–3	–124
Cash and cash equivalents at the beginning of the reporting period	723	7,775	832	2,879
Changes in cash and cash equivalents due to changes in the scope of consolidation	–	–	–8	–
Cash and cash equivalents as of September 30	**867**	**11,232**	**867**	**11,232**

Consolidated Statement of Changes in Net Equity

	Equity capital			Retained earnings	
€ million	General partner's equity Merck KGaA	Subscribed capital Merck KGaA	Capital reserves (share premium) Merck KGaA	Retained earnings/ Net retained profit	Remeasurement of defined benefit plans
Balance as of January 1, 2015	**397**	**168**	**3,814**	**6,500**	**–1,275**
Profit after tax	–	–	–	989	–
Other comprehensive income	–	–	–	–	25
Comprehensive income	**–**	**–**	**–**	**989**	**25**
Dividend payments	–	–	–	–129	–
Transactions with no change of control	–	–	–	–	–
Changes in scope of consolidation/Other	–	–	–	–	–
Balance as of September 30, 2015	**397**	**168**	**3,814**	**7,360**	**–1,250**
Balance as of January 1, 2016	**397**	**168**	**3,814**	**7,025**	**–1,160**
Profit after tax	–	–	–	1,360	–
Other comprehensive income	–	–	–	–	–697
Comprehensive income	**–**	**–**	**–**	**1,360**	**–697**
Dividend payments	–	–	–	–136	–
Transactions with no change of control	–	–	–	–	–
Changes in scope of consolidation/Other	–	–	–	–	–
Balance as of September 30, 2016	**397**	**168**	**3,814**	**8,249**	**–1,857**

Gains/losses recognized in equity					
Available-for-sale financial assets	Derivative financial instruments	Currency translation difference	Equity attributable to Merck KGaA shareholders	Non-controlling interests	Total equity
–	**393**	**1,745**	**11,742**	**59**	**11,801**
–	–	–	989	8	997
14	624	693	1,355	1	1,357
14	**624**	**693**	**2,344**	**9**	**2,353**
–	–	–	–129	–3	–132
–	–	–	–	–	–
–	–	–	–	–	–
13	**1,016**	**2,438**	**13,957**	**65**	**14,022**
5	**–176**	**2,714**	**12,787**	**68**	**12,855**
–	–	–	1,360	8	1,368
–6	22	–410	–1,092	–1	–1,093
–6	**22**	**–410**	**268**	**7**	**275**
–	–	–	–136	–3	–139
–	–	–	–	–	–
–	–	–	–	–	–
–1	**–154**	**2,304**	**12,920**	**72**	**12,992**

Information by Business Sector

	Healthcare				Life Science			
€ million	**Q3 2016**	Q3 2015	**Jan.–Sept. 2016**	Jan.–Sept. 2015	**Q3 2016**	Q3 2015	**Jan.–Sept. 2016**	Jan.–Sept. 2015
Net sales	**1,689**	**1,708**	**5,089**	**5,197**	**1,391**	**759**	**4,217**	**2,270**
Operating result (EBIT)	**375**	**349**	**1,314**	**884**	**216**	**97**	**486**	**266**
Depreciation/amortization	184	189	560	561	183	83	541	247
Impairment losses	1	–	73	3	–	–	–	–
Reversals of impairment losses	–	–	–	–	–	–	–1	–
EBITDA	**560**	**538**	**1,947**	**1,448**	**399**	**180**	**1,026**	**514**
Exceptionals	5	–1	–316	30	25	21	207	71
EBITDA pre exceptionals (Segment result)	**565**	**537**	**1,631**	**1,478**	**424**	**201**	**1,233**	**585**
EBITDA margin pre exceptionals (% of net sales)	33.5%	31.5%	32.0%	28.4%	30.5%	26.5%	29.2%	25.8%
Net operating assets[1]			5,699	5,813			20,641	21,441
Segment liabilities[1]			–2,322	–2,479			–855	–910
Investments in property, plant and equipment[2]	77	74	206	141	50	27	145	75
Investments in intangible assets[2]	9	108	24	120	20	2	37	5
Net cash flows from operating activities	567	481	1,248	1,101	487	234	956	458
Business free cash flow	543	460	1,308	1,143	390	213	935	438

[1] Figures for the reporting period ending on September 30, 2016; previous-year figures as of December 31, 2015.
[2] As reported in the consolidated cash flow statement.

Performance Materials				Corporate and Other				Merck Group			
Q3 2016	Q3 2015	**Jan.–Sept. 2016**	Jan.–Sept. 2015	**Q3 2016**	Q3 2015	**Jan.–Sept. 2016**	Jan.–Sept. 2015	**Q3 2016**	Q3 2015	**Jan.–Sept. 2016**	Jan.–Sept. 2015
645	**653**	**1,888**	**1,914**	**–**	**–**	**–**	**–**	**3,724**	**3,120**	**11,194**	**9,381**
213	**233**	**613**	**685**	**–128**	**–115**	**–338**	**–290**	**676**	**564**	**2,075**	**1,545**
60	59	181	179	6	5	18	13	433	336	1,300	1,000
–	–	14	–	–	–	–	2	1	1	88	6
–	–	–	–	–	–	–	–	–	–	–1	–
274	**292**	**808**	**864**	**–122**	**–109**	**–319**	**–275**	**1,110**	**901**	**3,462**	**2,551**
8	5	21	6	25	17	42	38	63	43	–46	145
282	**298**	**829**	**870**	**–97**	**–92**	**–277**	**–236**	**1,174**	**944**	**3,416**	**2,696**
43.7%	45.5%	43.9%	45.4%	–	–	–	–	31.5%	30.3%	30.5%	28.7%
		4,218	4,279			127	112			30,684	31,645
		–285	–290			–89	–61			–3,552	–3,739
26	21	68	53	17	9	36	29	171	130	456	297
2	3	7	4	7	2	14	6	37	116	82	136
327	319	773	815	–314	–163	–1,246	–897	1,067	872	1,731	1,477
271	265	729	717	–119	–98	–325	–267	1,085	841	2,646	2,031

€ million	Q3 2016	Q3 2015	Jan.–Sept. 2016	Jan.–Sept. 2015
Total EBITDA pre exceptionals of the operating businesses	**1,272**	**1,036**	**3,693**	**2,933**
Corporate and Other	–97	–92	–277	–236
EBITDA pre exceptionals of the Merck Group	**1,174**	**944**	**3,416**	**2,696**
Depreciation/amortization/impairment losses/reversals of impairment losses	–434	–337	–1,386	–1,006
Exceptionals	–63	–43	46	–145
Operating result (EBIT)	**676**	**564**	**2,075**	**1,545**
Financial result	–67	–81	–256	–223
Profit before income tax	**609**	**482**	**1,819**	**1,322**

€ million	Q3 2016	Q3 2015	Jan.–Sept. 2016	Jan.–Sept. 2015
Restructuring costs	–4	–2	–7	–42
Integration costs/IT costs	–48	–12	–112	–33
Gains/losses on the divestment of businesses	–9	–6	319	–1
Acquisition-related exceptionals	–1	–19	–148	–58
Other exceptionals	–2	–5	–5	–12
Exceptionals before impairment losses/reversals of impairment losses	**–63**	**–43**	**46**	**–145**
Impairment losses	–	–	–71	–2
Reversals of impairment losses	–	–	–	–
Exceptionals (total)	**–63**	**–44**	**–25**	**–148**

Significant Events during the Reporting Period

(1) Agreements with BioMarin Pharmaceutical Inc., USA, to return the rights to Kuvan® and Peg-Pal

In January 2016, an agreement entered into with BioMarin Pharmaceutical Inc., USA (BioMarin) on October 1, 2015 to return the rights to Kuvan® (sapropterin dihydrochloride) became effective. Kuvan® is a drug used to treat phenylketonuria (PKU), a rare metabolic disorder. Merck received an upfront payment of € 340 million for the sale of this business and is entitled to further payments of up to € 60 million for the achievement of certain milestones. The upfront payment and the fair value of the contingent purchase price payments were taken into consideration in the calculation of the disposal gain.

Moreover, an agreement also became effective in January 2016 under which Merck will return its option to develop and commercialize Peg-Pal to BioMarin. Peg-Pal is an investigational drug that is also designed for the treatment of PKU. Merck will receive further payments of up to € 125 million for return of the development and marketing rights when certain milestones are achieved.

The relevant assets were classified as assets held for sale until both transactions were completed in January 2016.

(2) Deconsolidation of the Venezuelan subsidiaries

Due to the nearly complete absence of dividend payments and payments for Group-internal supplies of goods, the Executive Board of Merck came to the conclusion that the possibility of receiving and influencing variable returns from the participation in the Venezuelan subsidiaries can no longer be deemed given. Owing to the lack of a possibility of control, the Venezuelan subsidiaries were therefore deconsolidated effective February 29, 2016.

(3) Impairment of the co-commercialization right for Xalkori®

As part of the immuno-oncology alliance entered into with Pfizer Inc., USA (Pfizer), in 2014, among other things Merck received the right to co-promote with Pfizer for multiple years Xalkori® (crizotinib), a medicine to treat patients with ALK-positive metastatic non-small cell lung cancer in the United States and several other key markets. Based on this co-commercialization right, Merck is entitled to 20% of the profits that both parties generate from the commercialization of Xalkori® in the relevant markets. Based on the available sales plans, the fair value of the right was determined by an independent external expert on the date the right was granted and is being amortized over the term of the co-commercialization right until December 31, 2021.

Owing to developments in the market environment, in the second quarter of 2016 Merck revised its expected profit participations from the co-commercialization right for Xalkori®. As a consequence an impairment test was performed in the second quarter of 2016 and led to an impairment loss of € 71 million on the intangible asset (residual book value on September 30, 2016: € 161 million), which was reported under other operating expenses in the second quarter of 2016.

(4) Acquisition of Sigma-Aldrich Corporation, USA, in 2015

On November 18, 2015, Merck obtained control of the Sigma-Aldrich Corporation, a life science enterprise headquartered in St. Louis, USA (Sigma-Aldrich). The purchase price allocation had not yet been completed on September 30, 2016. In comparison with June 30, 2016, no material changes occurred. More information can be found under "Acquisition of the Sigma-Aldrich Corporation, USA, in 2015" in the "Notes to the Half-Year Group Accounts as of June 30, 2016".

Darmstadt, November 11, 2016

Stefan Oschmann

Udit Batra

Kai Beckmann

Walter Galinat

Belén Garijo Lopez

Marcus Kuhnert

Financial Calendar 2017

March

Thursday, March 9, 2017
Annual Report 2016

August

Thursday, August 3, 2017
Half-year report

April

Friday, April 28, 2017
Annual General Meeting

November

Tuesday, November 9, 2017
Report on the third quarter

May

Thursday, May 18, 2017
Report on the first quarter

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