

# GROUP MANAGEMENT REPORT 2017

Information about the Group	10
Report on economic position	19
Risk report	25
Report on expected developments	28

# GROUP MANAGEMENT REPORT 2017

## INFORMATION ABOUT THE GROUP

### The Group's business model

The research-based pharmaceutical company Boehringer Ingelheim has stood for innovative medicines for humans and animals for more than 130 years and is one of the world's top 20 pharmaceutical companies. The focus of the family-owned company, which has its headquarters in Ingelheim, Germany, is on the research, development, production and sale of pharmaceuticals improving health and quality of life and contributing great therapeutic benefit to both human medicine and animal health. In its three areas of business, human pharmaceuticals, animal health and biopharmaceuticals as well as with discontinued operations and other activities Boehringer Ingelheim generated net sales of almost EUR 18.1 billion in 2017, with more than 49,600 employees worldwide.

At the start of the 2017 financial year, the exchange of Boehringer Ingelheim's consumer health care business (CHC) for Sanofi's animal health business (Merial) took place. This step represented the successful completion of the strategic transaction which began in December 2015 with exclusive negotiations and underlines the company's consistent focus on innovation-oriented fields. Following the successful completion of this transaction on 1 January 2017, Boehringer Ingelheim's consumer health care business was transferred to Sanofi, while in return Boehringer Ingelheim received Sanofi's animal health division, Merial.

Due to changes within the group of consolidated companies numbers of the previous year are comparable to a limited extent only. We refer to the remarks within the notes to the financial statements.

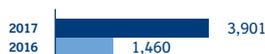
Human pharmaceuticals form the core of Boehringer Ingelheim's activities. Medicines from Boehringer Ingelheim have long been standard treatments for respiratory disorders, cardiovascular diseases, metabolic diseases, oncology, diseases of the central nervous system and immunology.

### Net sales by business (in EUR million)

#### Human Pharmaceuticals



#### Animal Health



#### Biopharmaceuticals



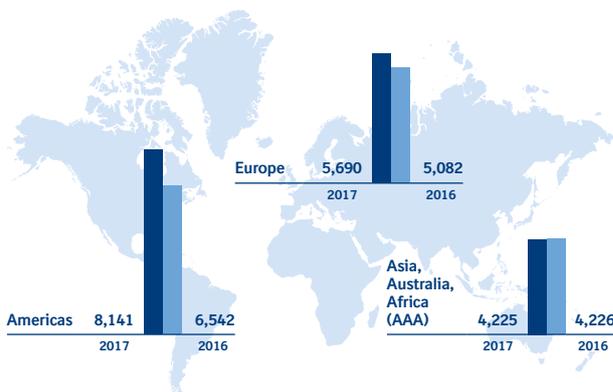
#### Other sales



#### Discontinued Operations



**Net sales by region (in EUR million)**



In 2017, the company’s biggest revenue contributor was once again SPIRIVA®, which is used to treat chronic obstructive pulmonary disease (COPD) and asthma. Moreover, PRADAXA®, which is used to prevent strokes in patients with atrial fibrillation, as well as for the prevention and treatment of thromboembolic disorders, and TRAJENTA® and JARDIANCE®, which remain on a growth path and are used to treat type 2 diabetes, also made significant contributions to Boehringer Ingelheim’s success. OFEV®, which was newly introduced in 2015 and which offers people with the rare, fatal respiratory disease idiopathic pulmonary fibrosis (IPF) a new treatment option, also achieved strong growth.

The business aim of Boehringer Ingelheim is to continue to drive forward with the innovative development of its existing product portfolio through organic growth, in cooperation with its external partners. To do this, Boehringer Ingelheim operates a global research network with major facilities in Biberach, Hanover and Ingelheim (Germany), Ridgefield, Connecticut, Duluth, Georgia and St. Joseph, Missouri (USA) as well as in Vienna (Austria) and Lyon (France).

The Animal Health Business Unit has become the second largest animal health business worldwide, following the merger of Boehringer Ingelheim’s existing activities with Sanofi’s Merial business. The products NEXGARD®,

HEARTGARD® and FRONTLINE® have been successfully incorporated into the company’s product portfolio. The established swine vaccine INGELVAC CIRCOFLEX®, which is used to treat porcine circovirus type 2, remains one of the most significant products in animal health in terms of net sales.

The biopharmaceuticals business is another important growth area for Boehringer Ingelheim. Boehringer Ingelheim’s biopharmaceutical activities comprise the manufacture of own-brand marketable products (such as ACTILYSE®, METALYSE® and PRAXBIND®), the process development and manufacture of new biological entities (NBEs) and biosimilars, and – as one of the world’s leading companies – the process development and commercial production of biopharmaceuticals for third-party industrial customers.

In the 2017 financial year, Boehringer Ingelheim once again achieved the majority of its sales in the Americas (45%) and Europe (32%) regions. The region of Asia / Australia / Africa (AAA) is of strategic significance for the Group’s future growth, making up 23% of its sales. The three biggest markets, the USA, Japan and Germany, accounted for 52% of sales last year.

**Research and development (R&D)**

In line with its mission statement, Boehringer Ingelheim’s entrepreneurial goal is to research and develop innovative medicines and therapies for the treatment of diseases for which there are not yet satisfactory treatments available. Our aim at all times is to make a major contribution in areas where the need for treatment is high and to occupy a leading position in major indication areas, not only in human pharmaceuticals, but also within animal health, where major emphasis is on development of vaccines, antiparasites and pharmaceuticals as well as new approaches and therapies to prevent, detect and treat chronic diseases more effectively.

Boehringer Ingelheim relies on a global research network comprising its own facilities in various countries around the world as well as cooperation with public research

Research and development	2017	2016	2015	2014	2013
Expenditure in EUR million	3,078	3,112	3,004	2,654	2,743
– as % of net sales	17.0	19.6	20.3	19.9	19.5
Human Pharmaceuticals expenditure in EUR million	2,714	2,870	2,780	2,333	2,444
– as % of Human Pharmaceuticals net sales	21.5	23.9	24.8	23.1	22.4
Average number of employees	8,269	8,055	7,895	8,104	7,741
Investments in tangible assets (without investments in infrastructure) in EUR million	71	92	77	78	114

institutions, academic institutions and other biotech companies. Its own research efforts are supplemented with various cooperation and licence agreements in the field of development projects and in technologies. The company has entered into various agreements in the field of oncology that focus on highly innovative research approaches. This includes partnerships with Siamab Therapeutics and AbeXXa Biologics as well as the cooperation with the academic centres of Vanderbilt University, the University of California and the Sarah Cannon Research Institute. Partnerships with Gubra and Dicerna add to the company's own development portfolio in the area of metabolic diseases. The company also entered into new partnerships and alliances in the fields of respiratory disorders and diseases of the central nervous system (CNS).

The aforementioned partnerships are a key component of Boehringer Ingelheim's innovation strategy. They supplement our highly comprehensive development portfolio with external partnerships and thus boost the innovative capability of our own R&D. They are also evidence of Boehringer Ingelheim's solid and successful cooperation with external innovation leaders.

In July 2017, Boehringer Ingelheim established its digital laboratory BI X as an independent subsidiary. This serves as a platform for innovation in the functions of data science, agile software development and user experience design and cooperates exclusively with Boehringer Ingelheim's business areas to develop going-to-market health innovation for both human medicine and animal health.

Boehringer Ingelheim's R&D activities are the basis for the company's sustainable success. Our innovative capability has played a key role in the Group's positive business development over the past years. Supplemented by external cooperation and partnerships, in-house R&D will continue to be a top priority in the future.

In the 2017 financial year, we employed an average of 8,269 people at our R&D facilities. A total of almost EUR 3.1 billion was invested in the R&D of new medicines, corresponding to 17% of the Group's net sales, which is the level of 2016, as expected.

#### Human pharmaceuticals

For over a century, we have been committed to improving the lives of people living with respiratory diseases. The scientific research in this field has been important again for Boehringer Ingelheim in the year 2017. We initiated clinical trials and announced new data that will help to increase the therapeutic options for patients and their doctors with these conditions. We focused on chronic obstructive pulmonary disease (COPD), idiopathic pulmonary fibrosis (IPF), systemic sclerosis with interstitial lung disease (SSc-ILD) and progressive fibrosing interstitial lung disease (PF-ILD).

New sub-analyses of the TONADO® and OTEMTO® trials for SPIOLTO® (tiotropium/olodaterol) RESPIMAT® were presented at the European Respiratory Society (ERS) International Congress in September 2017. These were based on the new assessment of COPD patients according to the "Global Initiative for Chronic Obstructive Lung Disease" (GOLD) guidelines. The sub-analyses confirmed

that tiotropium/olodaterol provides significant benefits over tiotropium monotherapy or placebo in terms of symptom reduction and quality of life. These results prove that COPD patients benefit from dual bronchodilation with tiotropium/olodaterol from early on in their disease.

The recently published GOLD report 2018 also recommends a dual bronchodilation with a long-acting anticholinergic (LAMA) and a long-acting beta2-agonist (LABA), the substance classes as in SPIOLTO® RESPIMAT®, as a first-line treatment option for symptomatic COPD patients in GOLD groups B-D.

For patients with obstructive respiratory diseases it is important that they get the medication deep into their lungs. Therefore the inhaler plays an important role in the therapy. RESPIMAT® is an innovative inhaler that actively delivers a unique mist, meaning a person just needs to take a slow deep breath in for the medication to go deep into the lungs. Patient experience surveys showed that the majority of patients consider RESPIMAT® as easy to use.

Results from the INJOURNEY™ trial, investigating the safety and tolerability profile of nintedanib in combination with pirfenidone in treating idiopathic pulmonary fibrosis (IPF), have been published in September in the American Journal of Respiratory and Critical Care Medicine (AJRCCM). Results show that the combination of nintedanib and pirfenidone resulted in a manageable safety and tolerability profile in the majority of patients.

In March 2017 we enrolled the first patient in the INBUILD trial (a double blind, randomized, placebo-controlled trial evaluating the efficacy and safety of nintedanib over 52 weeks in patients with Progressive Fibrosing Interstitial Lung Disease (PF-ILD)). This study investigates the efficacy and safety of nintedanib in a range of progressive fibrosing lung conditions other than idiopathic pulmonary fibrosis (IPF). The approach to enroll patients with different fibrosing lung diseases in one trial, who all exhibit a progressive fibrosing behavior,

offers an opportunity to these patients who would not otherwise be eligible to participate in a clinical trial.

The SENSCIS™ trial (Safety and Efficacy of Nintedanib in Systemic SCLerosIS) is another example of our ongoing commitment to improving the lives of patients living with rare diseases. By end of the year the recruitment for this trial has been completed. With more than 520 patients recruited, it is the largest global prospective clinical trial in SSc-ILD to date.

Boehringer Ingelheim is strongly committed to oncology and we are leading scientific discoveries through a broad research and development programme in cancer cell directed agents, immune oncology therapies and their combinations. In 2017, we have successfully advanced our research programmes focused on delivering first-in-class treatments with breakthrough potential. To further strengthen its oncology portfolio, the company has established a series of important partnerships and strategic collaborations with many of the world's leading academic, industry and advocacy organisations as well as research driven startup companies. Our commitment to innovation has already resulted in important treatments for lung cancer.

Afatinib (GIOTRIF®/GILOTRIF®), a second-generation medicine for the treatment of a specific type of non-small cell lung cancer (NSCLC) patients and metastatic NSCLC of squamous histology, has been available to patients since 2013 in certain countries. In 2017, we received approval of GIOTRIF® in China and this product has become the standard of care in many markets in the approved indications. Additionally, Boehringer Ingelheim has initiated GioTag, a real-world study to investigate how the treatment sequence with cancer cell directed therapies can extend the chemotherapy-free treatment time for patients. The study will include patients who started treatment with Afatinib as part of standard clinical practice, followed by a third-generation medicine. This real-world study builds on the comprehensive 'LUX-Lung' trial programme for afatinib which includes nine trials including direct head to head randomized trials versus first-generation treatments.

Boehringer Ingelheim's second cancer drug on the market, VARGATEF® (nintedanib), for the treatment of advanced non-small cell lung cancer (NSCLC), was approved and launched in further markets worldwide throughout 2017. Phase II data of the LUME-Meso trial which studied the effect of nintedanib in mesothelioma, a rare and aggressive cancer that is strongly associated with asbestos contact, showed that Nintedanib in combination with standard chemotherapy could prevent the tumor to continue growing and halved the risk of disease progression. These results are meaningful for patients because there are currently only few treatment options available for this condition. Data from a phase III trial of nintedanib in mesothelioma are expected to be available in 2018.

Boehringer Ingelheim's largest therapeutic area, cardiovascular and metabolic diseases, once again achieved strong growth. Boehringer Ingelheim will continue to invest in this area.

The company will continue to supplement the regulatory product information for JARDIANCE® (empagliflozin, an SGLT2 inhibitor) worldwide in order to reflect the data on the risk of cardiovascular disease resulting from the landmark EMPA-REG OUTCOME® study. The number of prescriptions increased continuously over the course of 2017: with sales of more than EUR 1 billion, JARDIANCE® reached blockbuster status in 2017. The product was also the most frequently prescribed SGLT2 inhibitor in new to brand prescriptions. At the same time, JARDIANCE® is the only oral antidiabetic drug on the market with data in the label supporting its use to reduce the risk of cardiovascular death in people with type 2 diabetes and established cardiovascular disease. In addition, JARDIANCE® sets itself apart from its in-class competition on safety, with new data presented during the course of 2017 showing no increased risk of lower-limb amputations (LLA) and bone fractures. The development of empagliflozin in additional disease areas is ongoing. In the first quarter of 2017, the two EMPEROR sister trials (EMPEROR reduced and EMPEROR preserved), which aim to investigate empagliflozin for the treatment of people with chronic heart failure with and without diabetes were

initiated and have started recruitment. In the second quarter, Boehringer Ingelheim and Eli Lilly and Company announced plans to initiate an additional new trial of empagliflozin for the treatment of people with chronic kidney disease. This trial will also enrol participants with and without diabetes and will start in 2018.

TRAJENTA® (linagliptin, a DPP-4 inhibitor), Boehringer Ingelheim's third-biggest product, registered strong growth of 17 %. The cardiovascular outcome studies CARMELINA® and CAROLINA® continue as planned. The key results of CARMELINA® are expected to be published in 2018. Both JARDIANCE® and TRAJENTA® are jointly marketed by Boehringer Ingelheim and Eli Lilly and Company.

In the anticoagulation space, 2017 saw the publication of three very important phase III studies for PRADAXA® (dabigatran etexilate) and Praxbind® (idarucizumab) at highly recognised international congresses. Each study was also simultaneously published in the prestigious New England Journal of Medicine. In March, the results of the RE-CIRCUIT® trial in atrial fibrillation patients undergoing ablation were presented at the American College of Cardiology Scientific Sessions. The data showed significantly reduced major bleeding rates compared to warfarin during the ablation procedure. The study provided highly relevant data for electrophysiology specialists and their patients. In July, the final results of the RE-VERSE AD® study of PRAXBIND® (idarucizumab) were presented at the International Society of Thrombosis and Haemostasis Biennial Congress. The data showed that PRAXBIND® immediately reversed the anticoagulant effect of PRADAXA® in patients in emergency situations. And in August, the results of the RE-DUAL PCI® study in atrial fibrillation patients following percutaneous coronary intervention with stent placement were presented at the European Society of Cardiology Congress. Using PRADAXA® in combination with a single platelet inhibitor led to a highly significant reduction of the bleeding rate when compared to the standard of care with warfarin therapy in combination with dual platelet inhibition. In addition, a number of analyses based on data from routine clinical

practice were published, including new results from the GLORIA AFTM registry. All of the above publications confirmed the established safety profile PRADAXA®.

More than 1,200 hospitals are already participating in the Angels Initiative for improved acute stroke care in Europe, which we are leading together with the European Stroke Organisation (ESO). The common goal is to optimise stroke treatment and thus to save lives.

### Animal health

In its R&D work in the field of animal health, Boehringer Ingelheim traditionally concentrates on innovative vaccines for the protection of livestock and pets, as well as on pharmaceutical products for the treatment of chronic diseases. These core areas were further strengthened through the company's acquisition of Merial at the beginning of 2017 and were supplemented with a third pillar: antiparasitics.

At our facilities in Europe, Asia, Oceania and North, Central and South America, we focus on research into new drugs and the development of future therapeutic solutions. Since many vaccines are based on local pathogens and pathogen variants, it is imperative that we are present in all key market regions with local R&D and production facilities. In the past year, we invested approximately EUR 65 million in new R&D plants and the expansion of existing facilities. These investments demonstrate our commitment to strengthen animal health by means of innovative, preventive medicines and our intention to sustainably strengthen our leading position in this field.

In 2017, we initiated more than 500 clinical studies worldwide, registered over 80 patents and received more than 200 authorisations. In addition to our internal research and development (R&D), we analyse external projects or products and integrate them in our portfolio where appropriate. Obtaining approvals and expanding the geographical distribution of existing products are other important aspects of our R&D activities.

### Biopharmaceuticals

Biopharmaceuticals have brought significant changes to the treatment of many diseases that severely restrict patients' lives. Since these chronic diseases are becoming more frequent, health care systems are exposed to increasing financial pressure in relation to their treatment. The introduction of biosimilars will improve the sustainability of health care systems and allow more patients to benefit from biologically produced medicines. Boehringer Ingelheim is developing biosimilars in oncology and immunology with the goal of providing further therapy options that provide genuine value for patients in these therapeutic areas.

CYLTEZO®, Boehringer Ingelheim's biosimilar to Humira® (adalimumab), was approved in 2017 in the USA and in the EU for the treatment of several chronic inflammatory autoimmune diseases in adults and children. Its approval is based on a comprehensive package of data, which documents the biosimilarity of CYLTEZO® to Humira® (adalimumab) according to analytical, pharmacological, non-clinical and clinical data. CYLTEZO® is not available in Europe or the USA at present. Boehringer Ingelheim and AbbVie are currently involved in patent litigation in the USA.

BI 695502, Boehringer Ingelheim's biosimilar candidate for Avastin® (bevacizumab), a drug used for treatment of advanced stage cancers, is in the late phase of clinical development.

### Production

#### Human pharmaceuticals

The task of human pharmaceuticals production is the reliable market launch of our products and the supply of our patients using high-quality pharmaceuticals at competitive costs. Boehringer Ingelheim makes use of a global network comprising its own facilities, contract manufacturers and suppliers for this purpose. To be able to react in a flexible manner to the continually evolving demands of a modern production network, the company launched its strategy "From Volume to Value" in late 2015. This is currently being gradually rolled out, as planned,

and is undergoing continuous development throughout the value chain.

In the past year, Boehringer Ingelheim operated 16 plants in 11 countries; 12 plants manufacture pharmaceutical products, while three produce important chemical active substances. Boehringer Ingelheim also has one production facility for medical products. At our own production facilities, we manufacture the products of particular relevance to our Group or whose manufacturing technology requires unique expertise. Our own production capacities are appropriately supplemented by strategic partnerships with contract manufacturers. Our partners primarily focus on the manufacture of products that are in an advanced stage of their life cycle.

In the past year, important investments were approved in particular for our Ingelheim (Germany) headquarters and for our Forno (Italy), Sant Cugat (Spain) and Yamagata (Japan) facilities. Our Ingelheim facility is making further progress in its transformation with the goal of focusing on the initial market supply process in the future, while Forno will be strengthened in terms of its role of ensuring the routine supply of chemical active ingredients for our network. Sant Cugat will expand its existing product portfolio to include RESPIMAT® technology. Our investment in Yamagata is intended to meet the needs of our Japanese patients on a long-term basis at a local level.

Our “From Volume to Value” strategy is intended to optimise the underlying business processes as well as bringing greater focus to our production network and boosting its flexibility. These processes are being standardised and continuously optimised in terms of their benefit for our business. They are implemented by way of IT systems, step-by-step and throughout our process chains (end-to-end). Further core elements are the active management of our products throughout their life cycle, the optimisation of our inventories worldwide and the implementation of a high-performance global logistics and distribution strategy.

### Animal health

Subsequent to the acquisition of Merial, Boehringer Ingelheim Animal Health is operating with a network of 19 facilities in 11 countries. It comprises 13 sites for manufacturing vaccines, five for pharmaceuticals and one for nutraceuticals. This industrial set-up is complemented by contract manufacturers, primarily in North and Central America as well as in Europe. We have defined a new network strategy in order to balance internal and external production subsequently to the integration of Merial and focus on core products in full alignment with business requirements. We are investing globally in foot and mouth disease research capacities and have started to consolidate the relevant network. In China, our Taizhou facility has successfully obtained the GMP-certificate.

### Biopharmaceuticals

Boehringer Ingelheim pursues its biopharmaceutical activities at its facilities in Biberach (Germany), Vienna (Austria), Fremont, California (USA) and Shanghai (China). They comprise the manufacture of own-brand marketable products (such as ACTILYSE®, METALYSE® and PRAXBIND®), the manufacture of new biological entities (NBEs) and biosimilars for clinical testing and – as one of the globally leading companies – the process development and commercial production of biopharmaceuticals for third-party industrial customers. 15 out of the top 20 pharmaceutical companies are clients of Boehringer Ingelheim’s biopharmaceuticals business. Boehringer Ingelheim covers the entire biopharmaceutical value chain, from genetic development of the cell, followed by manufacturing the active substance and filling the finished pharmaceutical product, down to the product launch and the global market supply.

By comparison with the previous year, 2017 saw an overall increase to almost full use of capacity at its network of industrial-scale production facilities. Boehringer Ingelheim’s volume of production meets the continuously rising demand for ACTILYSE®, particularly for the Chinese market. The company’s facility in Fremont, California, (USA), was successfully approved by the FDA and the EMA authorities for market production of the biosimilar

CYLTEZO®. Furthermore, our large-scale plant in Biberach successfully completed the registration processes for two further customer products for submission of the application for approval to the authorities. The expansion project (a new industrial-scale biopharmaceutical production facility) at Boehringer Ingelheim's site in Vienna (Austria) reached a further milestone, as the foundations for this facility were laid in summer 2017. The company's commercial facility in Shanghai (China), was also successfully put into operation. GMP hospital material was produced and delivered for studies in China and other countries in 2017, as scheduled.

### Occupational safety and environmental protection

The protection of the employees, the facilities and the environment, as well as the sustainable use of natural resources and the promotion of environmental awareness, are major components of our company's mission statement and are of prime importance to Boehringer Ingelheim. Compliance with social and environmental aspects has been firmly anchored in our corporate philosophy for many years now to ensure that we can achieve sustainability for future generations.

For many years, our company has established group-wide binding standards in terms of environmental protection, health and safety at work. These internal guidelines reflect the respective country-specific requirements. In many cases, they go far beyond the standards prescribed by law. In particular, we follow international standards and guidance documents and work in close cooperation with the relevant associations. Within Boehringer Ingelheim, corporate department Environment, Health, Safety & Sustainability (EHS&S) is responsible for our strategic focus.

For Boehringer Ingelheim, 2017 was characterised by the integration of Sanofi's animal health division (Merial) into our Group. To ensure compliance with the EHS&S duty of care, environmental risk assessments were implemented for our new facilities, integration audits were initiated, standards were aligned and processes were harmonised.

Technical support and regular EHS&S audits, both at Boehringer Ingelheim's internal facilities and at the premises of suppliers and contract manufacturers, ensure compliance with our own as well as with international standards (e.g. Pharmaceutical Supply Chain Initiative). The Supplier Code of Conduct applies to all relevant suppliers and supplements this programme. The status of environmental protection and occupational safety is continuously reviewed and potential for improvement is identified on this basis. In addition, the company addresses important current social issues that are of relevance for Boehringer Ingelheim and for the implementation of our sustainability goals. It is important for us to consult closely with stakeholders, both within our company and outside it, and to make progress in relation to key issues. We are taking a stand and formulating related position papers. We are striving to achieve continuous improvements in these areas, for the sake of our company as well as sustainability.

Boehringer Ingelheim is committed to supporting the UN's sustainable development goals (SDGs) and is making its own contribution to a sustainable future. At the 23rd UN Climate Change Conference in Bonn (Conference of the Parties, COP23) in 2017, EHS&S representatives of Boehringer Ingelheim participated.

As our contribution towards reducing global CO<sub>2</sub>e emissions, we have set ourselves the goal of reducing our entire CO<sub>2</sub> emissions by 20% by 2020 as compared with 2010 values.

The health and safety of our employees is a high priority at Boehringer Ingelheim. This is reflected in our international safety standards and in the safety culture that we practise. The roll-out of the Group-wide BE SAFE initiative, which aims to further reduce the number of workplace accidents, continued in 2017. Successful workshops were held with a focus on behaviour-based safety.

### Employee reporting

In 2017, Boehringer Ingelheim employed 49,610 people worldwide. This represents an increase of 8.6% on the

previous year. Boehringer Ingelheim increased the number of staff in all of its regions.

Average number of employees by region	2017	2016
Americas	12,890	11,469
Europe	26,300	24,164
Asia/Australia/Africa (AAA)	10,420	10,059
	49,610	45,692

A major success factor for the positive growth of the Group is its motivated and reliable staff. Accordingly, we are particularly committed to actively developing and supporting our employees. In order to be best prepared for the challenges ahead and as part of a comprehensive training system, we do not only set great store by the acquisition of technical expertise but also by promoting social skills.

With the integration of various experiences, cultural backgrounds and personalities, Boehringer Ingelheim creates an openness to different approaches and opinions, living up to its corporate vision “Value through Innovation”. As a global company, it is important to us that the diversity of the markets is reflected in our workforce. Creating a working environment that embraces diversity and differences is one of the pillars of the corporate culture of Boehringer Ingelheim and is a contributing factor to the company’s success.

In addition to competitive salaries, Boehringer Ingelheim offers other benefits to its employees. These include a range of company pension plans, flexible and home-based work options and numerous health-related benefits. As a significant segment of our corporate strategy, it is part of our Talent Management department’s remit to ensure the employability of our staff, promote a wide range of opportunities for innovation at work, and motivate our employees to nurture their own talents and develop as individuals.

Vocational training has always been of major importance to Boehringer Ingelheim. As part of its understanding of social responsibility, the company offers career opportunities to a great number of young people. At the same time, we also tie a talented and well-qualified workforce of young

professionals to the company against a backdrop of demographic change. In 2017, 206 young professionals started their careers with Boehringer Ingelheim in Germany in over 23 different scientific, technical and commercial fields. As of 31.12.2017, 660 young people were enrolled on our training programme.

One of the company’s aims is to strengthen the appeal of Boehringer Ingelheim as a top employer for our current and future employees. Boehringer Ingelheim was the recipient of various awards for its efforts in this area in 2017. We received top marks from the auditors of the international, independent “Top Employers Institute” in relation to key areas, such as staff planning, performance management, career and succession planning as well as compensation and benefits. We received this distinction for our facilities in Germany as well as for our facilities in China, Taiwan, Brazil, Russia, Spain and Poland. The number of countries that were awarded this rating was unprecedented. This is evidence of the strong appeal and development opportunities at our company – both for employees and for potential recruits.

### Social responsibility

Taking social responsibility is also an important aspect of our corporate culture. Our commitment to the well-being of our patients, employees and their families is the focus of a range of projects. In addition, we support people in need through various initiatives in countries and regions where we are active as a company. All of our company’s activities also focus on protecting and maintaining the environment.

As in previous years, Boehringer Ingelheim continues to assist in providing support and in the integration of people who have fled their home country and migrants from crisis regions. It pursues a broad range of measures in this area: Boehringer Ingelheim employees in Germany are conducting integration workshops at the state centre for asylum seekers in Ingelheim. In addition, since mid-2017, the company has pursued a partnership with the Deutsche Universitätsstiftung. Through this partnership, Boehringer Ingelheim sponsors the WELCOME scholarship programme, which supports students from crisis regions. The

company also helps candidates from crisis regions and areas people are fleeing from to join our company by offering them apprenticeships or the opportunity to complete an introductory training year or an internship.

A major pillar of our social commitment is our Making More Health (MMH) initiative. Since its start in 2010, this has developed as a social entrepreneurship movement, both within our company and externally. Socially committed and sustainable activities are not limited to individual projects relating to various regions and issues. Instead, this initiative focuses on connecting with local and international partners from different sectors. Networking across all traditional visible and invisible borders is a central element of a successful social movement, in order to identify, promote and implement innovative solutions for far-reaching and complex challenges in the healthcare sector. Co-creation as a bridge between social and commercial entrepreneurship brings together social entrepreneurs and non-profit organisations from the health care sector with Boehringer Ingelheim employees and their resources. To date, within the MMH network, Boehringer Ingelheim and Ashoka – one of the world’s largest non-profit organisations – have together helped more than 85 social entrepreneurs to reach 7.5 million people in the area of healthcare.

Internally, MMH has featured in Boehringer Ingelheim’s HR development activities for some years now and has changed its understanding of emerging markets. The initiative is supported by the Executive in Residence (EiR) and MMH Insight India staff development programmes. As part of a network of partnerships with non-profit organisations and social enterprises in the healthcare sector, these programmes give young professionals the opportunity to support the participants at their project facilities for a certain period of time and to jointly develop projects. Above all, improving health means understanding people’s environment and their everyday challenges and offering solutions where they are needed. Health awareness, affordability, accessibility of health services and acceptance play a key role here. MMH plays a role in the university sector, with the goal of helping students and

lecturers to learn more about socially entrepreneurial thinking and practical activities in the development of social entrepreneurship projects.

Boehringer Ingelheim values and respects its employees’ differences and actively promotes a diverse, cooperative and open working environment. We are conscious of the fact that the diversity of our markets and customers should be reflected in our workforce. For us, diversity makes for the right mix, but it is inclusion which brings out the best results from this mix. We therefore focus on encouraging an inclusive environment where this kind of diversity can thrive. Boehringer Ingelheim participated in the 5th German Diversity Day under the motto “Diversity in Companies” at its two largest German facilities, Ingelheim and Biberach, and it has been an official member of the “Diversity Charter” since early 2016.

## REPORT ON ECONOMIC POSITION

### Macroeconomic environment

With growth of almost 4%, the global economy was in robust form in 2017. Neither the USA’s increasing protectionism nor the Brexit vote – both of which are sources of economic uncertainty – had a significant negative impact on markets. Growth in the volume of world trade outpaced global gross domestic product growth for the first time since 2011. Europe’s economic recovery continued and all of the larger countries achieved stronger growth rates in the past year than in the previous year. Nonetheless, the eurozone continued to be burdened by the huge structural weaknesses of some member states. The picture for the emerging economies was mixed. Growth in Turkey declined significantly due to the political conflicts in that country. Brazil and Russia are back on track with their growth, having spent the past few years in recession particularly on account of the decline in crude oil prices.

Growth also picked up in Japan, buoyed by expansionary fiscal and monetary policies. Increasing exports under-

pinned investments. Rising wages for private households and declining unemployment stimulated consumer spending and willingness to invest in the USA. The monetary environment remained favourable despite the three interest rate hikes implemented by the American central bank, and the level of inflation was moderate.

In 2018, growth is expected in almost all world regions. A global growth level of 4% is predicted. The risks surrounding growth in Europe continue to include the possible consequences of Brexit as well as negative effects resulting from intensifying international competition in the field of taxation due to America's tax reform. In the USA, this is likely to have an additional stimulating effect on the economy. The stabilisation of oil prices will encourage fresh investments in the energy sector.

For China, a high level of growth is once again expected, even if this will be slightly weaker than in the previous year. Some larger emerging economies are likely to pick up growth due to stabilising commodity prices.

In Germany, the economy was benefiting from a broad-based upward trend. This was reflected in the lowest unemployment rate in over 25 years and lively consumer demand among private households and from other countries. The European Central Bank's low interest rate policy has stimulated demand for construction investments, while the influx of refugees has triggered growth in the level of government consumption spending. Adjusted for the low number of working days, the country's gross domestic product increased by 2.5%. Government finances registered significant surpluses, despite an expansionary spending policy. A solid economy and declining interest payments reduced the ratio of debt to below 65% of the country's gross domestic product.

In general, the increasing supply constraints on the labour market and the heavy use of capacities will somewhat limit opportunities for growth in 2018. The rise in the level of employment – which is set to drop off due to a low level of immigration and the process of demographic change – is aggravating the scarcity of skilled workers that is already

apparent in some sectors. However, in overall terms, the economic upturn will continue and price-adjusted gross domestic product growth of 2.4% is thus expected. Exports will maintain a clear upward trend, driven by the improved economic outlook in the eurozone and the rest of the world. Additional budget costs are likely to be resolved following the formation of a new German government.

Consumer prices increased rapidly in 2017 as crude oil and food prices once again picked up considerably. Prices increased by 1.8% in the past year. This was thus close to the target inflation rate of the European Central Bank (ECB) for the euro currency area as a whole. Despite slight overutilisation and tensions in some areas of the economy, there is no sign of overheating in Germany.

In addition to the euro, the major currencies for the Boehringer Ingelheim Group are the US dollar (USD) and the Japanese yen (JPY). The US dollar fluctuated between USD/EUR 1.05 (January) and USD/EUR 1.19 (December) and reached a low of USD/EUR 1.20 in September. The Japanese yen remained volatile against the euro, as usual. At the end of the year, the euro had picked up against the Japanese yen, at a rate of JPY/EUR 134.78, having reached a low of JPY/EUR 115.36 in mid-April.

The global pharmaceuticals market registered growth of 3% in the 2017 financial year. This trend was driven by rising demand in the industrialised countries for cancer medicines, products for the treatment of autoimmune diseases and anti-diabetic medicines. Due to the ageing population in the industrialised countries, the industry's growth remained stable, albeit slightly weaker than in previous years. This development is also related to structural problems of some eurozone and emerging countries, which leads to decelerating growth of demands.

### Course of business

Long-term and sustainably successful development forms the basis for securing the company's independence over the long term. Combined with stable earnings and sound financing, this is at the core of Boehringer Ingelheim's

strategic focus. As in previous years, we based our approach on these principles.

The year 2017 was characterised by significant changes for Boehringer Ingelheim; these were changes that also represented important steps for the company’s future. The completion of the exchange of our consumer health care business for Sanofi’s animal health business (Merial) at the turn of the year was one of the biggest changes of the past few years. This transaction will significantly improve our market position in the field of animal health and will establish us as one of the largest global players in this segment.

Boehringer Ingelheim recorded net sales of EUR 18,056 million in the 2017 financial year, which corresponds to an increase of 13.9% compared with the previous year’s figure of EUR 15,850 million. The exchange rate developments on the foreign exchange markets and the associated exchange rate effects had only a slight impact. Currency adjusted, Boehringer Ingelheim’s growth rate stood at 15.7%.

With sales of EUR 8,141 million, the Americas region represents around 45% of our total sales and remains the biggest market for Boehringer Ingelheim. The strong increase in sales on the previous year (24.4%) is mainly due to the purchase of Merial. The Europe region likewise registered strong sales growth (12.0%) and reached EUR 5,690 million. Accordingly, as in the previous year, 32% of the Group’s sales were achieved in this region. The Asia /Australia /Africa (AAA) region once again registered growth. Currency-adjusted sales increased here by 4.7%. Boehringer Ingelheim realised revenues of EUR 4,225 million in this region, corresponding to a share of around 23% of the Group’s total revenues.

Net sales by region (in EUR million)	2017	2016	Change	currency adjusted
Americas	8,141	6,542	+ 24.4%	+ 31.0%
Europe	5,690	5,082	+ 12.0%	+ 6.3%
Asia/Australia/Africa (AAA)	4,225	4,226	+ 0.0%	+ 4.7%

Overall, sales growth exceeded expectations. Supported by good results from clinical trials, we have been able to place promising new products on the market and successfully push ahead with well-established products. On the other hand, we are experiencing an increasingly difficult market situation with constantly challenging market access and growing price pressure in our key markets. Overall, the company has asserted itself well despite the difficult conditions and has laid the foundations for future growth.

Boehringer Ingelheim recorded an operating income of EUR 3,487 million, corresponding to a return on sales of 19.3%, which is 1.2 percentage points above the previous year’s return on sales. The operating income includes significant positive (EUR 1,183 million) and negative (EUR 1,492 million) extraordinary effects, which are mainly associated with the exchange of business areas with Sanofi. Despite this negative impact amounting to EUR 309 million, operating income increased by EUR 615 million in absolute terms as a result of the positive sales growth.

The financial income was negatively affected by interest effects from pensions and similar liabilities and the holding income reduced due to an impairment of a related company, income before taxes was therefore only slightly higher than in the previous year.

Key figures (in EUR million)	2017	2016	Change
Net sales	18,056	15,850	+ 13.9%
Operating income	3,487	2,872	+ 21.4%
Return on net sales	19.3%	18.1%	

Tax expenses were also influenced by significant extraordinary effects. Tax expenses in the current period include tax expenditure due to the disposal of the company’s consumer health care business. Moreover, in the USA, a tax reform was approved on 22 December 2017 through the “Tax Cuts and Jobs Act”. This required the revaluation of deferred tax assets and liabilities based on the corporate income tax rate enacted into law as at the balance sheet date for future financial years. This likewise had a significant negative impact on tax expenses.

Overall, Boehringer Ingelheim recorded a very positive development of the operating business during the 2017 financial year despite the negative one-time effects related to the integration of the Merial animal health business and the sale of the consumer health care business. Due to by far the highest tax payments in the company's history and the effects connected to the US tax reform, the Boehringer Ingelheim Group ended the year with a group loss of EUR 223 million (2016: group profit of EUR 1,853 million).

### Earnings position

In the past financial year, Boehringer Ingelheim's business activities were divided into human pharmaceuticals, animal health and biopharmaceuticals. The consumer health care business that was sold to Sanofi on 1 January 2017 has been reported under discontinued operations. In 2017, this still includes production and other services not yet completed within the scope of transferring business to Sanofi.

Net sales by businesses (in EUR million)	2017	2016	Change	currency adjusted
Human Pharmaceuticals	12,621	12,017	+ 5.0%	+ 6.9%
Animal Health	3,901	1,460	+ 167.2%	+ 170.7%
Biopharmaceuticals	678	613	+ 10.6%	+ 10.7%
Other sales	43	39	+ 10.3%	+ 8.7%
Discontinued Operations	813	1,721	- 52.8%	- 52.1%

#### Human Pharmaceuticals

With around 70% of total revenue, human pharmaceuticals is the main pillar of Boehringer Ingelheim's business activities. In 2017, revenues amounted to EUR 12,621 million. This is equivalent to a change of + 5.0% (+ 6.9% currency adjusted) compared with the previous year. The positive sales growth trend has resulted, in particular, from the successful placement of innovative products as well as the solid market position of established medicines. The emerging markets and the US market were the key growth drivers here. We are continuing to experience increasing price pressure, however, particularly for established medicines, in many of the major markets. Overall, Boehringer

Ingelheim was again able to assert itself well in this difficult environment in 2017 and has laid the foundations for further growth.

As in previous years, SPIRIVA®, which is used to treat chronic obstructive pulmonary disease (COPD), was once again the biggest contributor to sales in 2017. It achieved revenues of EUR 2,826 million in the reporting period, which was thus slightly below the previous year's level (EUR 2,995 million). In Europe in particular, sales of SPIRIVA® have declined significantly due to the increased level of generic competition on account of the loss of the relevant patent.

The second biggest sales contributor for Boehringer Ingelheim, the anticoagulant PRADAXA®, recorded sales of EUR 1,438 million, which corresponds to an increase over the 2016 level (+ 3.8%).

At EUR 1,008 million, the medicine JARDIANCE®, which is used for the treatment of type 2 diabetes, achieved sales in excess of one billion euros for the first time in 2017 (+ 132.8%).

Net sales (in EUR million)	2017	2016	Change
SPIRIVA®	2,826	2,995	- 5.6%
PRADAXA®	1,438	1,385	+ 3.8%
TRAJENTA®/JENTADUETO®	1,333	1,128	+ 18.2%
JARDIANCE®	1,008	433	+ 132.8%

With regard to the regional distribution of sales, the USA, with a share of 40%, was once more by far the largest market. Here, Boehringer Ingelheim generated sales of EUR 5,096 million, which corresponds to an increase of 18.5% compared with the previous year (+ 21.0% currency adjusted). This increase was both volume and price driven.

The second-biggest market, Europe, accounted for 31%, with revenues of EUR 3,965 million. Sales decreased by 2.7% compared to 2016 (EUR 4,076 million). Exchange rate effects did not have any significant influence on the sales trend. In Europe, the price pressure on SPIRIVA® and declining sales of other established brands had an impact.

Net sales by region (in EUR million)	2017	2016	Change
USA	5,096	4,300	+ 18.5%
Europe	3,965	4,076	- 2.7%
Emerging Markets	2,145	1,901	+ 12.8%
Japan	1,415	1,740	- 18.7%

In the emerging markets, sales increased by 12.8% to EUR 2,145 million (currency adjusted + 14.7%). Sales in the previous year had amounted to EUR 1,901 million. Due to the expiry of the patent for MICARDIS®, sales in Japan decreased by 18.7% to EUR 1,415 million. The increased level of sales for other products was unable to compensate for this effect. This was in line with our expectations.

#### Animal health

Revenues from products in the animal health business increased to EUR 3,901 million in the past financial year due to the acquisition of Merial's activities, corresponding to a 167.2% increase on the previous year (+ 170.7% currency adjusted).

Net sales (in EUR million)	2017	2016	Change
NEXGARD®	546	0	n.a.
FRONTLINE®	381	0	n.a.
INGELVAC CIRCOFLEX®	302	283	+ 6.7%
HEARTGARD®	284	0	n.a.

All of the Group's regions benefited from this sales growth. Its four best-selling products include three products from the Merial group, NEXGARD®, FRONTLINE® and HEARTGARD®.

Net sales by region (in EUR million)	2017	2016	Change
USA	1,683	662	+ 154.2%
Europe	968	393	+ 146.3%
METAsia	954	337	+ 183.1%
Latin America	296	68	+ 335.3%

The product INGELVAC CIRCOFLEX® once again achieved sales growth. With sales of EUR 302 million, it achieved a growth rate of 6.7% compared to the previous year.

#### Biopharmaceuticals

Sales for 2017 in biopharmaceutical contract manufacturing amounted to EUR 678 million, which represents growth of 10.6% compared with the previous year.

#### Presentation of expenditure and income

Cost of materials were 31.4% higher than in the previous year (EUR 2,643 million), coming in at EUR 3,474 million. This represented a cost of materials ratio of 19.2%. Personnel expenses amounted to EUR 4,934 million (+8.0%), corresponding to a personnel cost ratio of 27.3%, which was thus 1.5 percentage points lower than the previous year.

Depreciation and amortisation recorded an increase of EUR 343 million (+ 55.3%) to EUR 963 million. Other operating expenses rose by 8.8% compared with the previous year, coming in at EUR 8,334 million. Among other items, this cost category includes commission and licence payments that are dependent on sales.

Operating income was 21.4% higher than the previous year (EUR 2,872 million), coming in at EUR 3,487 million. This was influenced by significant positive and considerably higher negative extraordinary factors and one-time effects, particularly related to the exchange of business areas with Sanofi and the reversal of provisions. Adjusted for these extraordinary effects, operating income was considerably higher than in the previous year. This exceeded our expectations.

In the reporting period, the financial income amounted to EUR - 330 million, down by EUR 254 million compared with the year 2016. This was mainly due to interest effects resulting from pensions and similar obligations. Holding income also decreased, in particular due to an impairment loss on a related company investment.

Despite the decrease in the financial income and holding income, income before taxes amounted to EUR 2,856 million and was thus EUR 64 million (+2.2%) higher than in the previous year. Tax expenses were influenced by significant extraordinary effects. Tax expenses in the current period include tax expenditure due to the disposal

of the company's consumer health care business. Moreover, in the USA, a tax reform was approved on 22 December 2017 through the "Tax Cuts and Jobs Act". This required the revaluation of deferred tax assets and liabilities based on the corporate income tax rate enacted into law as at the balance sheet date for future financial years. This likewise had a significant negative impact on tax expenses.

It must be noted in this regard that under the provisions of German commercial law, shareholders' personal taxes arising from Group business activities may not be recognised as tax expenses. Instead, these taxes are presented as part of withdrawals from Group equity. Taking this extraordinary effect into account, the actual tax ratio is markedly higher than the figure shown in the profit and loss statement.

Overall, despite the positive business development and the significant increase in its operating income the Boehringer Ingelheim Group ended the year with a consolidated loss of EUR 223 million (2016: consolidated profit of EUR 1,853 million), due to by far the highest tax payments in the company's history and the effects connected with the US tax reform.

## Financial position

Boehringer Ingelheim's financial management instruments and methods are aimed at securing liquidity, minimising financial risks and optimising the cost of capital with an appropriate capital structure. Our financial activities are therefore geared towards supporting the business strategy.

As a global company, exchange rate volatility has a significant impact on Boehringer Ingelheim's financial performance. The importance of our US business and the associated supply relationships mean that the exchange rate development of the US dollar constitutes the greatest individual risk. Within the framework of Group-wide financial reporting, foreign exchange risk is calculated and generally hedged through derivative financial instruments. The nature and scope of these measures are set out in our Group guidelines and are regularly discussed

and approved by the relevant committee in a standardised process.

Investments are of particular importance to Boehringer Ingelheim from a strategic point of view. Continuous investment is a requirement for long-term development of the company and forms the basis for the profitable growth of our business activities.

A total of EUR 1,023 million was invested in tangible and intangible assets in the year under review.

In April 2017, the groundbreaking ceremony took place for the expansion of biopharmaceutical production in Vienna (Austria). This investment with a volume of EUR 700 million, including infrastructure measures, is the biggest single investment in Boehringer Ingelheim's company history. A further 500 new jobs will thus be created at what has been a significant facility for decades.

A new biopharmaceutical production facility was also opened in Shanghai (China). More than 100 new jobs were created here. In an initial investment phase, more than EUR 70 million has already been invested in this project. This facility is the first and, to date, the only biopharmaceutical cell culture production facility launched by a leading international biopharmaceutical manufacturer in China. With its global network of biopharmaceutical production facilities in Biberach (Germany), Vienna (Austria), Fremont, California (USA) and now Shanghai (China), Boehringer Ingelheim's contract manufacturing business, Boehringer Ingelheim BioXcellence™, is well placed to supply innovative products so as to reliably meet the strong rise in demand from the biopharmaceutical industry not only in China, but also worldwide.

Cash flow from operating activities amounted to EUR 2,624 million in 2017. Despite the significantly higher operating income, this represented a slight decline on 2016 (EUR 2,888 million). In contrast to provision releases in 2017 the operating income of the previous year included an increase in provisions. Cash flow from investments (- EUR 5,115 million) was mainly impacted by the

cash settlement for the exchange of business areas with Sanofi and tax payments resulting from the sale of our consumer health care business. The cash outflow from financing activities (- EUR 1,206 million) mainly includes the repayment of financial liabilities of Merial companies to their previous holding company Sanofi. Overall, after taking into consideration exchange effects and changes within the group of consolidated companies, this led to a decrease in the Boehringer Ingelheim Group's financial funds of EUR 3,859 million to EUR 8,130 million.

### Net assets

In the 2017 financial year, Boehringer Ingelheim's total assets amounted to EUR 28,386 million, an increase of EUR 2,247 million (+ 8.6%) as compared with the previous year. This was due to the acquisition of Merial. Tangible and intangible assets amounted to EUR 9,239 million.

As at the end of the year, financial investments amounted to EUR 5,830 million, which corresponds to a decrease of EUR 262 million on the previous year's value. Inventories showed growth of 18.3% to EUR 3,087 million. Trade receivables rose by EUR 91 million to EUR 3,146 million in 2017. Liquid funds, including securities within current assets, stood at EUR 3,071 million (previous year: EUR 7,005 million).

In view of the aforementioned changes, Group equity amounted to EUR 10,657 million and thus covers the value of the Group's tangible and intangible assets. In addition to equity, the pension provisions and long-term accounts payable and loans are also available to the Group in the long term. The total of these three items amounted to EUR 15,080 million in 2017, representing a share of 53.1% of the total assets. Consequently, long-term disposable capital covers all intangible and tangible assets, as well as trade receivables.

The difference from capital consolidation increased to EUR 1,729 million (2016: EUR 52 million), exclusively driven by the exchange of our consumer health care business for Sanofi's animal health business.

While other provisions were 3.7% higher than the previous year and amounted to EUR 6,689 million, accounts payable and loans also increased in the past year by 1.0%, totalling EUR 2,004 million.

The status already shown in the financial position remains resoundingly positive on both the balance sheet and in the respective balance sheet ratios. To sum up, Boehringer Ingelheim's net assets, financial and earnings position confirm its credentials as a soundly financed and profitable company.

## RISK REPORT

### Risk and opportunity management

The aim of the risk management system implemented at Boehringer Ingelheim is to identify business-specific risks and, in particular, risks that jeopardise the continued existence of the company as early as possible, to assess them and to reduce them to a reasonable level by means of suitable measures.

When assessing the risks in the context of holistic risk management, we also endeavour to take into account the resulting opportunities. Opportunity management is based on the strategies and objectives of the company, individual businesses and operating business units, and is an integral part of the Group-wide planning and management systems. Those responsible for the businesses and functions bear direct responsibility for the early and systematic identification, analysis and use of opportunities. For Boehringer Ingelheim as a research-driven and innovative pharmaceutical company, the current research and development activities are naturally considered a relevant opportunity. Relevant projects have already been illustrated in the research and development chapter.

The persons responsible for the key businesses and functions are included in the process of calculating and assessing risks. The Group-wide risk and information system ensures that all identified risks are analysed and assessed carefully. Following an appropriate classification into

various categories, adequate countermeasures are initiated and their implementation is consistently monitored.

In the year under review, internal auditing performed targeted routine audits as well as extraordinary audits around the world. In addition to compliance with legal requirements and internal Group guidelines, the main focal points were the functionality of systems, the effectiveness of internal controls for the prevention of loss of assets, and the efficiency of structures and processes. Corresponding adjustments or optimisations were initiated as necessary.

### Individual risks

The most important risks to which Boehringer Ingelheim is exposed are broken down into the following specific categories: financial risks, legal risks, production and environmental risks, personnel risks and industry-specific risks.

Risks are identified below as being “concrete” when they appear to be controllable by means of specific management procedures. The term “abstract” is used in the case of risks that cannot be completely controlled, even by means of targeted management procedures, regardless of the probability of their occurrence.

### Financial risks

Relevant financial risks are themselves broken down as follows: currency risks, credit and country-specific risks, as well as financial investment and shareholding risks.

#### *Currency risks*

The global orientation of our business activities results in currency risks due to exchange rate volatility, particularly with regard to the US dollar and Japanese yen. The Group monitors and quantifies these risks at regular intervals, making them predictable for future business by means of relevant hedging strategies and appropriate financial instruments, such as forward exchange contracts. The resultant risks are subsequently designated as being concrete and thus controllable.

#### *Credit and country-specific risks*

Boehringer Ingelheim is exposed to various credit and country-specific risks as a result of its international business activities. From the portfolio of trade accounts receivable and trade accounts payable, we have not identified any extraordinary risks for the Group beyond the usual level in the sector. The same applies to possible default risks for receivables, which are largely hedged against economic and political risks. We will continue to carefully track credit and country-specific risks to be in a position to respond to negative changes in a timely manner. These risks are therefore regarded as concrete.

#### *Financial investment and shareholding risks*

The Group pursues a defensive investment strategy in the management of its financial assets. This is reflected in the orientation of its portfolio, which is focused on European Economic and Monetary Union (EMU) government bonds with top credit ratings and short-term investments at selected banks, so that this results in a concrete and thus controllable risk for the major part of the financial investments. The net book value of some of the strategic investments in related companies is more affected by market and business circumstances, which leads to a higher volatility of the fair market value. All specific risks have been covered by respective impairments in the consolidated financial statements.

### Legal risks

The business activities of the Group are exposed to legal risks. A distinction is made between regulatory, liability and patent protection risks.

#### *Regulatory risks*

Boehringer Ingelheim is exposed to risks arising from legal disputes and proceedings as well as official investigations. As the legal or administrative decisions in ongoing or future proceedings cannot be predicted, we regard the resultant risks as being abstract.

#### *Liability risks*

The marketing and sale of pharmaceuticals are exposed to a potential product liability risk. Boehringer Ingelheim

currently has product liability insurance covering the Company's risk profile. There is absolutely no guarantee, however, that this insurance coverage can be maintained at reasonable cost and acceptable conditions, or that it is sufficient to protect Boehringer Ingelheim against a claim or loss, or against all potential claims or losses. In case it is foreseeable that the product liability insurance does not or only in parts cover a specific liability risk, the remaining risk exposure has been covered by a provision.

Furthermore, product liability claims could tie up substantial financial resources and management capacity and be detrimental to the company's image in the event that the market considers the product to be unsafe or ineffective as a result of unexpected side effects. We regard this risk as abstract.

#### *Patent protection risks*

Protection of innovations through trademark, brand and patent rights is of particular importance to Boehringer Ingelheim as a research company. These commercial protective rights are increasingly the target of attacks and breaches. We have taken the necessary precautions to allow us to detect threats at an early stage and, by commencing appropriate countermeasures, defend our legal position using all legal means available to us so that these risks are regarded as concrete.

#### **Production and environmental risks**

Our quality management system and compliance processes are continuously optimised in close cooperation with the relevant authorities in order to ensure compliance with cGMP standards (current good manufacturing practices). Risks in this area continue to be of high significance to the Group and are classified as abstract.

In order to guarantee the supply of our products to the market, we have implemented measures that guarantee reliable and high-quality supplies for internal and external customers. In addition to supplier management on the procurement side, this also involves building up internal standby capacities. As a result, we see the risk as concrete.

Risks in the areas of environment, health, safety and sustainability (EHS&S) are pre-emptively minimised by ensuring global compliance with our high safety standards. Appropriate emergency plans have been drawn up for possible incidents of any kind and are practised and subjected to comprehensive quality testing at regular intervals. As a result of these measures, these risks are classed as concrete.

#### **Personnel risks**

Boehringer Ingelheim, as other companies, is exposed to demographic change and the resultant risk of being affected by a lack of appropriately qualified personnel. This potential risk can have a substantial impact on the company's business activities. It has therefore been included in the long-term planning process for many years and has gained strategic significance as a result.

Boehringer Ingelheim counters the risk by means of a comprehensive personnel concept. Regardless of their ethnic background, gender or religion, we offer all company employees development opportunities based on their vocational skills, social expertise, personal aptitudes and willingness to take on responsibility in accordance with the needs of the company. In view of the countermeasures described above, the risk is regarded as concrete.

#### **Industry-specific risks**

Boehringer Ingelheim is exposed to business risks specific to the pharmaceutical industry. Some of these risks materialised in the past financial year and are increasing in significance as a result of their impact on Boehringer Ingelheim. They will continue to be classed as abstract.

In addition to the loss of exclusivity of products established on the market and risks associated with the development and registration of new products, these risks increasingly include changing and restrictive requirements relating to pricing and reimbursement on many sales markets. Frequently, the prices of pharmaceutical products are subject not only to state monitoring and regulation, but also to price pressure from cheaper generic drugs caused by the state reimbursement systems. Boehringer

Ingelheim is therefore keeping a close eye on the various changes in its sales markets and takes appropriate measures in response to current developments.

### Overall statement on the risk situation

From a current perspective, we are not aware of any risks that alone or in conjunction with other risks could lead to a lasting impairment of the company's assets, financial or earnings position that could jeopardise the continued existence of Boehringer Ingelheim.

## REPORT ON EXPECTED DEVELOPMENTS

As in 2016, the year under review was an intense and challenging time for Boehringer Ingelheim, during which we laid the foundations for the sustainable development and long-term growth of our company with several major decisions.

The consistent focus of our business on innovation-oriented fields is attested by the strategic exchange of Sanofi's animal health business (Merial) and Boehringer Ingelheim's consumer health care business. The contract for this exchange was signed in June 2016 and the transaction was successfully closed on 1 January 2017. This transaction will not only improve the competitiveness of our animal health business in the industry's important growth markets, but will enable us to offer our customers worldwide even more innovation and added value at a very high level by pooling the complementary product portfolios of Merial and Boehringer Ingelheim, the existing technology platforms for vaccines and anti-parasitic as well as pharmaceutical speciality products.

The increasingly difficult market environment and increased unpredictability of doing business posed major challenges for the entire pharmaceutical industry and will continue to require significant attention from Boehringer Ingelheim in 2018, too. With regard to competitiveness, it is even more important, therefore, that we retain our scope for

growth and innovation so that we can continue to be successful on the market in the future. With regard to the many changes in healthcare systems and the increasing price pressure, particularly for well-established medicines in many major markets, and with regard to increasing challenges to market access for new products, we only expect low growth impetus for the pharmaceutical industry in the coming year. Boehringer Ingelheim has asserted itself well in 2017 despite the difficult conditions and has laid the foundations for further growth.

For 2018, we presume that revenue will continue to grow slightly on a comparable basis (i.e. without discontinued operations)

Research and development expenses remained high in 2017, in line with our strategy to drive growth and promote new products in the future primarily with products from our own research and development facilities. We invest in this area with care after close investigation of the therapeutic benefit and the associated prospects for success. Our comprehensive portfolio of prospective products with promising study outcomes, along with newly approved products with significant sales potential, justifies our high level of investment in research and development. For 2018, we envisage a slight increase in our investments in the research and development of new pharmaceuticals.

In addition to patent expiry and attacks on patents, the major challenges facing the research-driven pharmaceutical industry are the increasing amount of investment in R&D as well as bigger hurdles and increased costs associated with product approvals. In this context, also the increasing cost pressure in healthcare systems has to be particularly emphasised, leading to decreasing willingness to adequately recognise large amounts invested into the development of new medicines. As a result, there is significant price pressure in all major markets for prescription medicines. In conjunction with longer planning and development cycles for new products, this makes business less predictable and requires us to recognise and seize opportunities quickly on the one hand, while sub-

jecting costs and strategies to continual monitoring and adjustments on the other hand. To this end, we have launched initiatives over the past few years to accelerate our reaction to changes and to reduce organisational complexities as well as to lower our cost base in order to create potential for investments and to secure the company's long-term success. With the difficult market environment on the one hand, and the potential resulting from the measures we have introduced as well as promising new product launches on the other hand, we plan to see a 2018 operating income which is on a comparable basis slightly above last year's level.

As a family-owned company, Boehringer Ingelheim's primary aim is to maintain the firm's independence and competitiveness. As such, long-term and sustainable organic growth still takes precedence over short-term profit targets. We are confident that we will achieve our ambitious targets thanks to our great innovative strength based on a comprehensive portfolio of prospective products, our global presence and the support of our highly qualified and motivated employees. Current product launches and expansions in emerging markets will boost growth in all our areas of business. We will stand by our vision "Value through Innovation" and hence research and develop innovative products that offer high medical benefits and bring them to the market. As a result of our efforts, we will provide new medicines that will enable doctors to treat patients with novel therapies more effectively.