Merck KGaA
Darmstadt, Germany

ANNUAL REPORT 2013

TRANSFORMATION ON TRACK

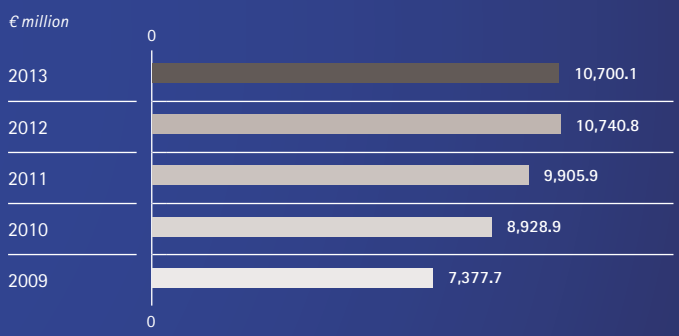
DISCLAIMER

Contents

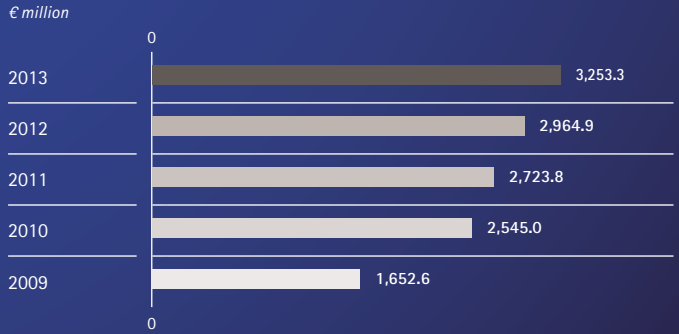
Group | Key figures

€ million	2013	2012	Change in %
Total revenues	11,095.1	11,172.9	–0.7
Sales	10,700.1	10,740.8	–0.4
Operating result (EBIT)	1,610.8	963.6	67.2
Margin (% of sales)	15.1	9.0	
EBITDA	3,069.2	2,360.2	30.0
Margin (% of sales)	28.7	22.0	
EBITDA pre one-time items	3,253.3	2,964.9	9.7
Margin (% of sales)	30.4	27.6	
EPS (in €)	5.53	2.61	111.9
EPS pre one-time items (in €)	8.78	7.61	15.4
Business free cash flow	2,960.0	2,969.3	–0.3

Group sales



EBITDA pre one-time items



Emanuel Merck (1794 – 1855) established the world's oldest pharmaceutical and chemical company out of the Engel-Apotheke (Angel Pharmacy), which was founded in 1668. Today we are carrying this tradition into the future with pioneering spirit and innovative strength.

Transformation on track

Merck KGaA, Darmstadt, Germany, is a leading company for innovative and top-quality high-tech products in the pharmaceutical and chemical sectors.

Around 38,000 employees work in 66 countries to improve the quality of life for patients, to further the success of our customers, and to help meet global challenges. In 2013, we generated total revenues of € 11.1 billion with our four divisions: the biopharmaceutical division, Consumer Health, Performance Materials and life science tools division.

Merck KGaA, Darmstadt, Germany, is changing. We are on track with our transformation and growth program known as "Fit for 2018". In 2007, we started with the realignment of our portfolio, refilled key management positions, fundamentally refocused our organization, and then implemented an efficiency program across all divisions and regions. The success achieved to date shows that our strategy is working. We have considerably improved not only our sales and earnings, but also our profitability.

At the same time, we remain true to our roots and tradition. Merck KGaA, Darmstadt, Germany, is the world's oldest pharmaceutical and chemical company. Since 1668 our name has stood for innovation, business success and responsible entrepreneurship. The founding family remains the majority owner of the company to this day.

We are the original and hold the global rights to our name and brand. The only exceptions are Canada and the United States, where we are known as EMD.

Karl-Ludwig Kley
Chairman of the Executive Board

→ *Letter from Karl-Ludwig Kley*

In 2013 we again delivered what we promised. We further developed our businesses with innovative and highly specialized products and services. We expanded our presence in global growth markets. And through numerous development partnerships, we honed our ability to meet the needs and wishes of patients and our customers.

The numbers reflect this development. We are in a strong financial position, despite a consistently challenging market environment. Thanks to solid organic growth of 4.2%, which nearly offset negative exchange rate effects in full, we maintained our sales at € 10.7 billion. EBITDA pre one-time items, our most important earnings figure, increased by 9.7% to a record level of € 3.3 billion. At € 1.2 billion, profit after tax more than doubled.

As in 2012, our organic growth was particularly fueled by the dynamic business performance in the growth markets of Asia and Latin America. In the Emerging Markets region, sales increased organically by 9.3%. Accordingly, the share of Group sales generated by the Emerging Markets region rose to 36%.

We also continued to reduce our debt in 2013, lowering net financial debt by 84.1% to € 306.6 million. At the same time, business free cash flow was € 3.0 billion, reaching the high level of 2012. We thus have a solid financial foundation for the coming years and enough room to grow, also through bigger acquisitions.

We will propose to the Annual General Meeting to increase the dividend by € 0.20 to € 1.90 per share. This is in keeping with our aim to continually raise the dividend in line with increases in net income. However, in our deliberations on the dividend proposal, we also took into account that we are in a period of transformation.

In 2013, we made good progress with our transformation and growth program known as “Fit for 2018”. We even reached some of our objectives faster than planned, for instance those aimed at lowering costs. Yet “Fit for 2018” extends well beyond efficiency improvements. The program also encompasses the strategic expansion of our product portfolio and the establishment of more productive structures and processes within the company. Our goal is clear: We want to achieve profitable growth with innovative products and strict customer focus.

→ *Letter from Karl-Ludwig Kley*

"Fit for 2018" also applies to our divisional strategies:

→ In the Biopharmaceuticals division, we are working to improve our pipeline and to fully exploit the potential of the existing portfolio. Our regional focus will be on the United States and on growth markets in Asia and Latin America. The aim is to establish the Biopharmaceuticals division globally as a preferred biopharmaceutical partner that offers innovative specialty medicines, leading brands and high-value solutions.

→ We have successfully raised the profitability of Consumer Health and generated new growth by focusing on key brands and markets, bringing costs under control and recruiting new employees. The aim now is to ensure sustainable growth through innovations and convincing marketing of our strategic brands in rapidly growing markets.

→ In Performance Materials, we intend to defend our position as the market and technology leader in liquid crystals. Through the steady development of our products and our strong positioning in OLED technology, we want to continue setting innovation standards for display technologies. In the Pigments business, we are focusing on strengthening and expanding our leading market positions for high-quality effect pigments.

  To strengthen our materials business, we want to acquire AZ Electronic Materials, a leading premium supplier of high-tech materials for the electronics industry. The acquisition would enable us to access additional growth areas in the electronics industry, allowing us to benefit even more from the increasing demand for electronic devices beyond displays, such as smartphones and tablet PCs. The successful completion of the transaction is, however, conditional upon antitrust clearance, among other things.

→ In the Life Science Tools division, our efforts will concentrate on expanding and strategically aligning the portfolio in order to meet customer needs even better. The key focus regions are North America, Asia and Latin America. We are resolutely pursuing the goal of bringing further innovative products to market.

Above and beyond the divisional strategies, we have defined four capability initiatives. They address fundamental topics that are of utmost importance to the performance of the entire company:

→ We want to strengthen our brand in order to further increase our global visibility as an innovative company and as "the original company".

→ To raise our appeal as an employer, we want to better foster talent and performance. We are aiming to further develop the capabilities of our employees and increase workforce diversity.

→ We want to further harmonize and streamline processes in order to make the Group faster, more flexible and more powerful.

→ *Letter from Karl-Ludwig Kley*

→ In order to be open and accessible to customers, business associates and the community, and to add more room for creativity, we are revamping our global headquarters in Darmstadt. An Innovation Center will be at the heart of this development, serving as a hub to advance cutting-edge projects at Merck KGaA, Darmstadt, Germany.

Customers and patients are at the center of all our efforts. After all, meeting their wishes and needs with the best products and highest quality standards is essential in order for us to achieve our own objectives. True to our mission statement: "Our aspiration is to make great things happen. With our research-driven specialty businesses, we help patients, customers, partners and our communities around the world to live a better life. We deliver entrepreneurial success through innovation."

For this we need the right team – and we have it. Our workforce of around 38,000 men and women in 66 countries is focused each and every day on finding innovative solutions for customers, patients and partners. They clearly show that at the Group, we are living innovation. I owe all of our employees a debt of gratitude for their commitment and expertise.

We have set ambitious goals that we want to achieve by our 350th anniversary in 2018. These goals have been condensed into nine aspirations. We want to be globally known for innovation, quality, as well as performance and efficiency. We want to be liked for our customer orientation, the career opportunities we offer, and the entrepreneurial spirit at our company. And lastly, we want to be respected for our values, our entrepreneurial responsibility and commitment to sustainability, as well as for our corporate culture of thinking beyond generations instead of only in quarters.

Our company is well-positioned to achieve these objectives. We will continue to work hard to create long-lasting success and a sustainable future for our Group. And we will work to deliver on our promises in 2014 and 2015 as well.

I thank you for your trust in our company and hope that you will continue this journey with us.

Karl-Ludwig Kley
Chairman of the Executive Board

Matthias Zachert

Member of the Executive Board
Chief Financial Officer

- Born in 1967, university degree in business administration
- Joined Merck KGaA, Darmstadt, Germany, in June 2011 as a Member of the Executive Board

Responsibility for Group functions:
Group Accounting & Subsidiaries; Group Controlling & Risk Management; Corporate Finance; Group Tax; Group Procurement; Group Insurance; Investor Relations

Stefan Oschmann

Member of the Executive Board
CEO Pharmaceuticals

- Born in 1957, veterinarian
- Joined Merck KGaA, Darmstadt, Germany, in January 2011 as a Member of the Executive Board

Responsibility for Group functions:
Patents & Scientific Services

Bernd Reckmann

Member of the Executive Board
CEO Chemicals

- Born in 1955, biochemist
- Joined Merck KGaA, Darmstadt, Germany, in 1986, member of the Executive Board since January 2007

Responsibility for Group functions:
Environment, Health, Safety, Security & Quality

Kai Beckmann

Member of the Executive Board

- Born in 1965, university degree in computer science
- Joined Merck KGaA, Darmstadt, Germany, in 1989, member of the Executive Board since April 2011

Responsibility for Group functions:
Group Human Resources; Group Information Services; Site Operations; Inhouse Consulting

Karl-Ludwig Kley

Chairman of the Executive Board

- Born in 1951, lawyer
- Member of the Supervisory Board and Board of Partners of Merck KGaA, Darmstadt, Germany, from March 2004 to June 2006; Member of the Executive Board since September 2006, Chairman since April 2007

Responsibility for Group functions:
Group Strategy; Group Communications; Group Legal & Compliance; Group Internal Auditing

Group

We want to make great things happen

We are a successful, global and diversified pharmaceutical and chemical company with a focus on innovation and research.

2018

... will mark the 350th anniversary of the Group. At the same time, the year will represent an important milestone in the "Fit for 2018" transformation and growth program.

38,000

... employees are committed to finding innovative solutions that will "make great things happen".

1. We want to make great things happen

Our **mission** is to make great things happen. With our research-driven specialty businesses, we help patients, customers, partners and the communities in which we operate around the world to live a better life. We are not aiming to manage the status quo. We want to achieve more – each and every day. And we want to continuously improve and achieve sustainable, profitable growth with superb, innovative products and services. This objective is not something that we simply communicate externally, but rather what we work toward each and every day within the company. We aim to offer our employees excellent development and career opportunities. That's because we can only develop further if we attract the best people to work for us.

We are focusing on markets that need and reward innovation. For this, we invest around € 1.5 billion in research and development every year. Whether medicines, high-tech materials or life science technologies: we focus on profitable, high-margin products that meet special requirements.

All our products and services have two things in common: Firstly, they help to improve quality of life for patients and customers. And secondly, they consistently meet the highest quality standards on which our customers around the world can rely.

Courage, Achievement, Responsibility
Respect, Integrity, Transparency

Values

Our aspiration is to make great things happen. With our research-driven specialty businesses, we help patients, customers, partners and our communities around the world to live a better life.

We deliver entrepreneurial success through innovation.

Mission

FIT FOR 2018
CHANGE

Our Group will be ...

known for

- Innovation
- Quality
- Performance & Efficiency

liked for

- Customer orientation
- Entrepreneurial spirit
- Career opportunities

respected for

- Values
- Responsibility & Sustainability
- Thinking beyond generations

Aspirations

Conducting research to develop the displays of tomorrow: Organic LEDs in the laboratory at Merck KGaA in Darmstadt, Germany.

China – a booming country: The Biopharmaceuticals division production in Beijing.

We set the highest standards for ourselves

It is our **ambition** for our Group to be known throughout the world for innovation, quality, performance and efficiency. At the same time, we want to be liked for the way we do business, namely for our entrepreneurial spirit, the career opportunities that we offer, and our customer orientation, which we prove each and every day. We want to be respected by all our stakeholders for demonstrating value-driven behavior, thinking beyond generations, and living up to our responsibility for society.

Our principles have guided us well for centuries

The pursuit of these aspirations has been a driving force of our company for generations.

And we are doing everything we can to sustain our success for future generations. Therefore, it's essential to maintain a good balance between opportunity and risk. The diversification of our portfolio across sectors and geographies ensures that this risk is diversified by very different product life cycles and business areas. The careful balance has guaranteed the sustainable development of the company for nearly 350 years.

Since we think in longer time frames, we are keenly aware of not only the importance of economic success, but also of our obligations to future generations. The Group therefore couples the pursuit of economic success with social responsibility and environmental protection.

Our values are our compass

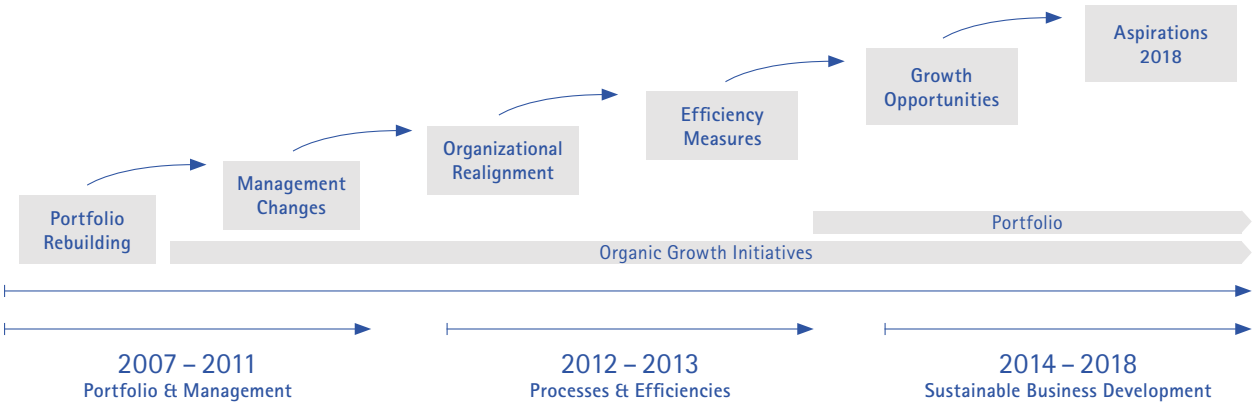
In a world in which the only constant is change, a robust framework of values is vital to provide orientation for entrepreneurial decisions. We are united by strong values that offer all employees orientation for their daily actions. Entrepreneurial **courage** is elementary since it creates new opportunities. Yet economic success is only possible in conjunction with exceptional **achievement**. We want our daily actions to consistently reflect a strong sense of **responsibility** and we want to treat each other with **respect**. To us, **integrity** is an absolute must and **transparency** makes our actions understandable. This is the only way for us to maintain the trust and the credibility of our stakeholders over the long term.

The Merck family owns the majority interest in our company and is committed to the Group's values and the company's guiding principles. The sustainable development of the company and its employees is of primary concern to the Merck family.

2. The best of two worlds: tradition and progress

Had continuous change not remained a constant throughout the long history of our Group, the company would not be as healthy as it is today. In 2007, we started refocusing our portfolio and successively introducing a change in management. This is also the historical context for our "Fit for 2018" transformation and growth program, which we launched in 2012 and are using to shape the next phase of our company's development.

Transformational journey since 2007



Founded in 1668 with the purchase of the "Engel-Apotheke" (Angel Pharmacy) in Darmstadt, today the Group is a German blue-chip company with sales of over € 11 billion and around 38,000 employees in 66 countries. The company ranks among the world's leading suppliers in its specialty businesses.

Innovations have always been a main driver of our business. Today, the company enjoys market leadership with its multiple sclerosis therapy in the main European markets and is a world leader in fertility and colorectal cancer treatment. The Group ranks first in Europe with its probiotic multivitamins (Bion®3) and pregnancy vitamins (Femibion®). Our Performance Materials division is the undisputed world leader in liquid crystals. The same applies to pearl-luster pigments. And in products and services for the biotech industry we are growing faster than our key competitors.

Our company combines the best of two worlds: the tradition and values of a German family-owned company with the earning power, efficiency and state-of-the-art features of a leading global corporate group.

Our success is attributable to the fact that we never become complacent. With the two major acquisitions of Serono SA in 2007 and the Millipore Corporation in 2010, we elevated our pharmaceutical business to a new platform and established an internationally competitive life science business. After extensive management changes, we focused on developing and establishing a new leadership organization (NLO), in order to make the considerably larger Group more modern, faster and efficient. We launched a transformation and growth program known as "Fit for 2018" that covers all businesses, functions and regions. We have leveraged synergies, eliminated duplication, and made the organization fit for the future. We have optimized the research process at the Biopharmaceuticals division and focused ourselves on the further development of highly promising projects. And in October 2013, we marked the opening of the new Biopharmaceuticals divisions headquarters in Darmstadt.

Our efforts have meanwhile really started to pay off. We have become faster, more innovative and, last but not least, far more profitable. In 2013, we already achieved the goals we had set ourselves for 2014. We are proud of what we have achieved; and we are well prepared for the future. But we cannot rest on our laurels. In a world that is constantly changing, we cannot stand still. Therefore, we will continue to resolutely pursue our successful strategy of sustainable growth.

Our company combines the best of two worlds: the tradition and values of a German family-owned company with the earning power, efficiency and state-of-the-art features of a leading global corporate group.

3. Reaping the rewards

Today, the Group already generates the majority of its sales in high-tech sectors such as biotechnology and performance materials. Our profitability reflects this. Overall, with its products and services the Group is very well positioned to benefit from long-term, global megatrends. Global population growth and an expanding middle class in emerging markets are leading to increasing demand for smartphones and televisions, and consequently for our liquid crystals. An aging population and an associated rise in chronic disease will bolster demand for our biopharmaceutical products in the long term. Higher government spending on health care around the world is leading to sustainably positive sales expectations for both pharmaceuticals and

life science tools. In order to fully exploit the potential of these trends, the Group has launched a range of business initiatives.

Biopharmaceuticals

To further raise the efficiency of pharmaceutical research, we have realigned Research & Development in a targeted manner. We introduced a more entrepreneurial model – the Translational Innovation Platforms (TIPs) – to elevate the performance dynamics of our research and early development activities. The TIPs will have three years to achieve their business plans. The TIPs are supported by Enabling Expert Functions (EEFs). These EEFs comprise specialists from fields such as medicinal chemistry and toxicology.

Additionally, we have launched a range of life-cycle initiatives, mainly in emerging markets, for our products that have been succeeding in the market for many years now. We are also benefiting from global megatrends such as economic growth, worldwide population expansion and generally higher life expectancy. We are endeavoring to develop new formulations, new combinations and new dosage forms. We know that the success of therapies often depends not only on the drug, but also on the way in which it is administered. The Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, benefits here from its many years of experience in developing user-friendly injection devices for its biotechnological medicines, for example in the therapeutic areas of multiple sclerosis, infertility and endocrinology.

Apart from internal Research & Development activities, the Biopharmaceuticals division is also counting on long-term cooperation with partner companies and scientific institutions. To enable the Biopharmaceuticals division to invest more in early innovation, in 2013 the size of the corporate venture capital fund MS Ventures was increased to € 100 million. MS Ventures also manages the € 10 million MS Israel Bioincubator Fund as well as the investment framework for spin-off companies funded through the € 30 million Entrepreneur Partnership Program. Moreover, the Biopharmaceuticals division is continuously working to strengthen its core therapeutic areas by in-licensing medicines.

We are systematically implementing our "Fit for 2018" program and have already made excellent progress.

Consumer Health

With it strong focus on strategic brands such as Bion®, Nasivin®, Femibion®, Seven Seas®, Sangobion®, Cebion®, Sedalmex® and Kytta®, the Consumer Health division of Merck KGaA, Darmstadt, Germany, has increased its profitability to the level of its global peers. The division has a strong presence in Europe, Latin America and Southeast Asia and is growing rapidly in emerging markets. Focusing on strategic brands and key markets is increasingly paying off. We will continue to pursue this strategy while consistently meeting new consumer needs with our innovative products and compelling marketing of our brands. One example of the sharper focus on consumers is the transfer of the Neurobion® and Floratil® brands from the Biopharmaceuticals to the Consumer Health division in 2014. Neurobion® is a leading global brand in the vitamin B segment and Floratil® is a leading brand in the probiotic antidiarrheal segment in Brazil. Their commercialization by Consumer Health will allow a stronger focus on consumer needs and help to increase value added.

Efficient research and development that promotes young, innovative researchers.
Here: The Biopharmaceuticals division's production in Vevey, Switzerland.

Consumer Health in Japan:
Close to consumers with products that meet their health care needs.

Performance Materials

With its specialty chemicals and high-tech materials business, the Performance Materials division of Merck KGaA, Darmstadt, Germany, is aiming to deliver a steady flow of innovations. This applies in particular to the liquid crystals business, where our company has been the market and technology leader for many years now with a market share of over 60%. Here, We are working to identify new application areas for liquid crystal mixtures, also beyond displays. The Advanced Technologies unit is driving forward research-intense topics such as organic light-emitting diodes (OLEDs), materials for LEDs, and organic electronics.

We expect OLEDs to become a second pillar besides liquid crystals. Against this backdrop, we want to forge ahead with the development of a comprehensive OLED portfolio. We have already achieved initial success by cooperating with the printing manufacturer Seiko Epson. Together we have developed a technology that makes it possible to print OLED displays. The aim is to lower the costs of OLED display production, which is still time-consuming and expensive. In addition, we are working to continually expand our effect pigment portfolio. The metal effect pigments in the Meoxal® product family are the result of continuous research into new pigment technologies at our Group. They have a special additional coating and owing to this surface treatment, they are particularly suited for automotive and plastic coatings. With the planned acquisition of AZ Electronic Materials, we want to further strengthen the portfolio of our Performance Materials division. AZ superbly complements our existing activities in the display industry. Moreover, we will win new customer groups in the electronics industry, for which AZ produces high-value, ultrapure process chemicals.

Life Science Tools

By offering products and services for the life science tools market, which has a volume of around € 30 billion, the Life Science Tools division delivers solid financial performance and above-average market growth. It focuses on two important customer groups: life science research and laboratories as well as pharmaceutical and biotech manufacturers. The Life Science Tools division is one of the world's leading suppliers in this market with more than 60,000 products, continually delivering new and differentiated products for customers. For this reason, around 6% of sales are invested in research and development. In addition, acquisitions are expanding the product portfolio. The acquisition of Biochrom in November 2012 has expanded the Life Science Tools division's range of cell culture media, buffer solutions and single-use packaging. By acquiring CellASIC, we also strengthened our cell biology platform.

Sustainable success – beyond 2018

We made considerable progress on our transformation journey in 2013. We are systematically implementing our "Fit for 2018" transformation and growth program and are well on track. Yet success is not making us complacent. We want to achieve continuous improvements in all our businesses and operations. We want to further develop existing competencies to benefit customers. We want to continue to differentiate ourselves from the competition and to secure our businesses through sustainably profitable growth by our anniversary year in 2018 and well beyond.

In brief, we make great things happen.

→ **Full speed ahead.**
In China, growth is also compromising people's health. With high-quality medicines, our Group is capturing the Chinese market and fighting diseases of affluence.

Biopharmaceuticals

We are continuing the fight

China is a country in transition, which is leading to new health care challenges. In order to stop diabetes from becoming an epidemic in China, our Group is responding to the needs there, and aims to support the Chinese government's efforts to increase patient access to quality care by bringing high-quality, cost-effective medicines to a broader population.

Portrait: Belén Garijo

The economic boom in China is impressive, but it has a downside: nowhere else in the world is home to as many people with diabetes as China. To counter this trend, the Biopharmaceuticals division is increasing its engagement in China and will make one of the leading antidiabetic agents accessible even in remote regions.

"We exist to help people."

Belén Garijo,
President and CEO of the Biopharmaceuticals division

100 million people with type 2 diabetes in China are too many – far too many, and Belén Garijo is keenly aware of it. "As a biopharmaceutical company, we exist to help people. This is our raison d'être – in China like anywhere else in the world." One out of four people with diabetes worldwide lives in China, which means there is much to be done there. Economic power, population, demand, consumption – there is hardly anything in China that is not growing at an astonishing rate. This upward trend applies to health care needs as well, in particular diabetes.

Medicines that hit the target

As the President and CEO of the Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, Belén Garijo intends to play a key role in facilitating access to antidiabetic agents in places where they used to be hard to obtain. One example is Glucophage®, an established standard of care for treating type 2 diabetes that has been utilized in China for 14 years: Until recently, Bristol-Myers Squibb (BMS) was the product's sole distributor there, but

Division

Biopharmaceuticals

At the Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, the focus is on making a lasting difference in the lives of patients. Science and research form the basis for our innovative medical therapies. People and their quality of life are always at the center of everything we do.

The brands

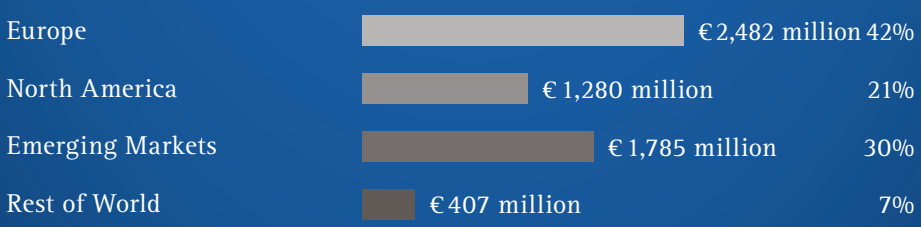
Rebif®
Erbitux®
Glucophage®
Gonal-f®
Concor®

These selected brands are among the key products of the Biopharmaceuticals division, the Group's largest division in terms of sales. The two leading products Rebif® and Erbitux® generate nearly one-half of sales.

Business figures

Sales	€ 5,953,594,110
EBITDA pre	€ 1,954,981,681

Sales by region



Microcosmos

Glucophage®

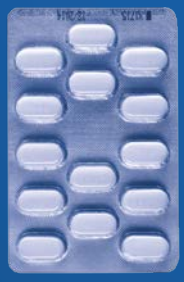
Glucophage® (active ingredient: metformin hydrochloride) is a prescription medicine from the Group. It is the first-line drug of choice for the treatment of type 2 diabetes.

01

Formula → Metformin hydrochloride is a member of the biguanide class for the treatment of diabetes mellitus. It suppresses glucose production by the liver and promotes glucose uptake in the muscles.

02

Active ingredient → Metformin hydrochloride is present as white, virtually odorless and bitter-tasting crystals that are readily soluble in water.

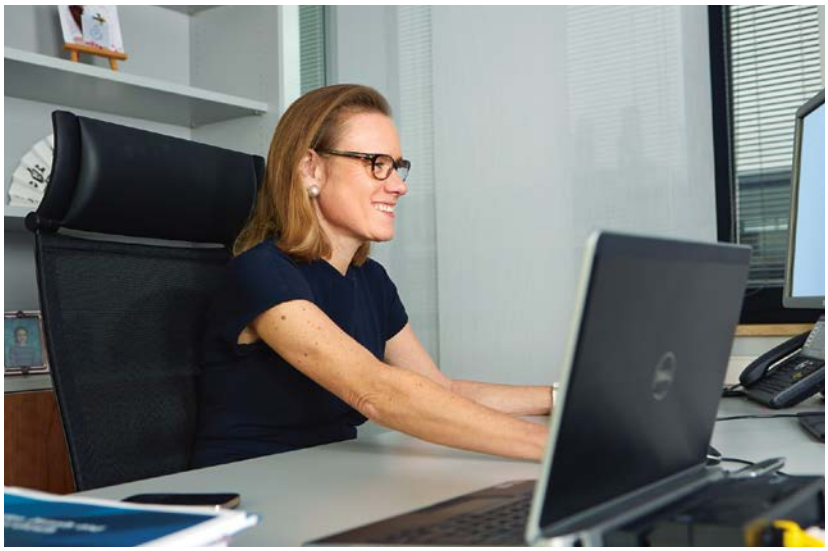


03

Tablet → The classical dosage form of Glucophage® is a tablet. Further developments are taking patient needs into account such as extended release (XR) formulations to reduce dosing to once daily and thus increase convenience.

04

Powder → Further development of Glucophage® film-coated tablets: water-soluble virtually tasteless powder for easy intake.



Garijo, between meetings: "China has always been part of our history."

> "The long-term thinking of our company fits particularly well with the Chinese culture."

since the beginning of 2013 the Biopharmaceuticals division and BMS have joined forces to expand the geographic distribution of Glucophage®, as well as to provide diabetes-related health and medical information, including education for health professionals. A collaboration in which Garijo has played a decisive role. "I believe that the Biopharmaceuticals division's historical role in the discovery and development of this first-line treatment in China brings credibility to our role in the partnership," she says.

Today, Garijo says, significantly more hospitals in China have access to the drug – even in remote regions – thanks to the joint efforts of Merck KGaA, Darmstadt, Germany, and BMS. Does this make her proud? "Of course," she replies, "What drives us at the Biopharmaceuticals division is our commitment to transforming patients' lives." According to Garijo, this also means viewing the markets from a different perspective, learning to think and act with an eye for the long term, not merely in quarters. "The long-term thinking of our company fits particularly well with the Chinese culture," she says.

China – Part of our history

The Group intends to rank among the top ten multinational pharmaceutical companies in China, one of the company's three focus markets along with Brazil and the United States, by 2020. For the Group, this means building for the future in China by investing across the value chain. In addition to its existing pharmaceutical research center, development capabilities and commercial presence, the Group recently announced an € 80 million investment for a new pharmaceutical manufacturing facility in China. "We are very proud to be one of the first multinational companies investing in a local site focused on the manufacturing of medicines referenced in China's essential drug list," said Garijo while attending the signing ceremony with local authorities in November 2013 in Nantong, in the greater Shanghai area. "The medicines produced at the Nantong manufacturing site, our international leading brands Glucophage®, Concor® and Euthyrox®, will serve the country's expanding health care needs in the areas of diabetes, cardiovascular diseases and thyroid disorders," she says.

The Biopharmaceuticals division also aims to help address critical health care needs of the Chinese population in the areas of oncology and fertility with its innovative biotech specialty medicines Erbitux® and Gonal-f®, respectively.

Already on her way to her next meeting, Garijo looks up and says, "You know, we have been active in China for 80 years now. The country is already part of our history. That is why we really see ourselves playing a key role in promoting the health of the people there."

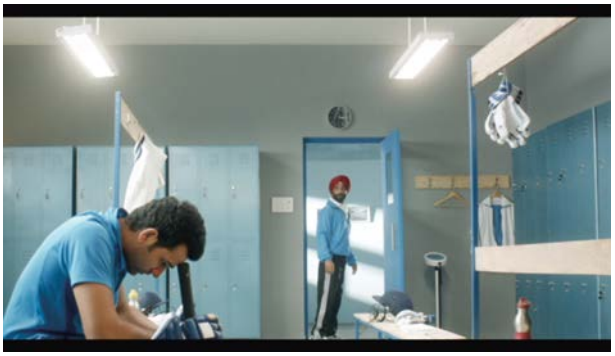
Garijo at the signing ceremony for the future manufacturing site in Nantong.

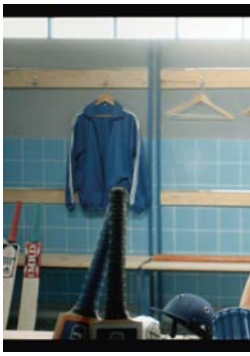
→ **Breathing easy thanks to Nasivin®.**
A clever direct-to-consumer strategy is getting the message out there – even in the hectic environment of rush hour in India.

Consumer Health

We are breathing easy

In India, a nasal spray is more than just medicine. It is also a fast way to get back to work. Thanks to innovative ideas and a clever marketing strategy, we are benefiting from a new degree of health awareness on the subcontinent.





Interview with Udit Batra

Udit Batra discusses the growing degree of health awareness among the middle class in India.

And how taxis and pharmacists are playing a key role in the success of a nasal spray.

“In India, people want quick relief so that they can get back to enjoying life.”

Udit Batra
President and CEO
of Consumer Health

Division

Consumer Health

The Consumer Health division of Merck KGaA, Darmstadt, Germany, offers high-quality over-the-counter pharmaceuticals to enhance well-being. Our brands are marketed in many countries of Europe, Latin America, Asia and Africa. With our innovative health protection products, we want to improve the quality of life of people everywhere.

The brands

Bion®
Cebion®
Femibion®
Kytta®
Nasivin®
Seven Seas®
Sangobion®
Sedalmex®

These are the names of some of the many successful brands in Consumer Health. Our product Bion® is the world's leading probiotic multivitamin.

Business figures

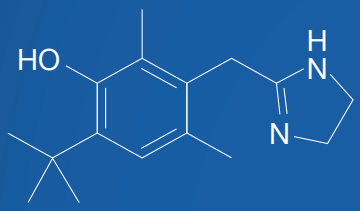
Sales	€ 476,915,464
EBITDA pre	€ 72,450,063

Sales by region

Microcosmos

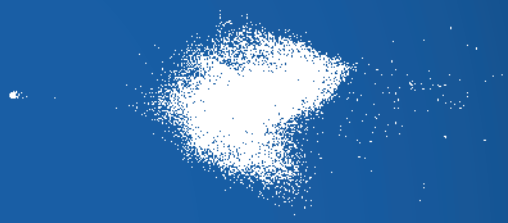
Nasivin®

⟶ In the early 1960s, the Group launched Nasivin®, the first nasal decongestant containing the active ingredient oxymetazoline. In the following decades, Nasivin® came to stand for cold treatments.



01

Formula → Oxymetazoline is a chemical compound, specifically an imidazole derivative. It is used as a nasal decongestant.



02

Substance → Small drops, big effect: the blood vessels of the nose constrict, swelling of the nasal mucosa recedes. Thanks to oxymetazoline, the duration of an acute cold is shortened by a third.

03

Dosage system → High ergonomic quality thanks to the large push button on the base, the antislip ridges on the shoulder, and the user-friendly applicator.

Acts in

25

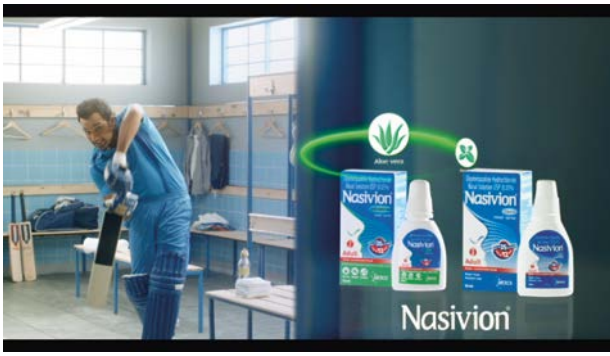
seconds

↦

lasts for 12 hours

04

Nasivin® → Acts in 25 seconds and lasts for up to 12 hours. Normally, administration two to three times per day suffices.



In the Indian market, 30 products are generating strong growth for the Group. These include Nasivion® (known as Nasivin® in Germany), which is being supported by a comprehensive advertising strategy.

Mr. Batra, isn't a head cold the same everywhere, whether in India or Iceland?
That may be the case from a medical perspective, but patients have a different view. When an Indian and an Icelander are suffering from a cold, they have two completely different ways of handling it. After all, a cold impacts everyone differently. And that applies to all patients in the more than 20 countries in which we successfully market Nasivin®.

Patients in India are increasingly arming themselves with Nasivin® – why?
In India, people want quick relief so that they can get back to enjoying life, which is why they are looking for fast-acting, easy-to-use medicines. Consumers in India are also inquisitive and open to innovative ideas and are becoming increasingly health-conscious...

... which, thanks to a growing middle class and higher purchasing power, makes India a more and more attractive market for Merck KGaA, Darmstadt, Germany.
Precisely, although we are not exactly newcomers to the market in India. We have been marketing Nasivin® on the subcontinent since 1969, first with the nasal spray for adults. In the 1980s and 1990s, we then expanded our portfolio and launched sprays for babies and small children. This is how we became the second biggest brand in the topical nasal decongestants category, and since 2010 we have been taking the direct-to-consumer approach: clear key messages and revamped packaging so as to appeal to consumers and drive clear and targeted messages at various consumers touch points.

Is that why 50 "Nasivin® taxis" are plying the route between Delhi Airport and downtown Delhi, and two double-decker Nasivin® buses are driving around Mumbai?
Exactly so. These are both examples of our Metro Campaign for our new product Nasivin® Advanced, which is highly innovative and is focused on consumer needs. This is a nasal spray that, apart from acting quickly, also soothes thanks to the addition of aloe vera, menthol and eucalyptol. Moreover, the buses and taxis are also good examples of our rainbow strategy in India.

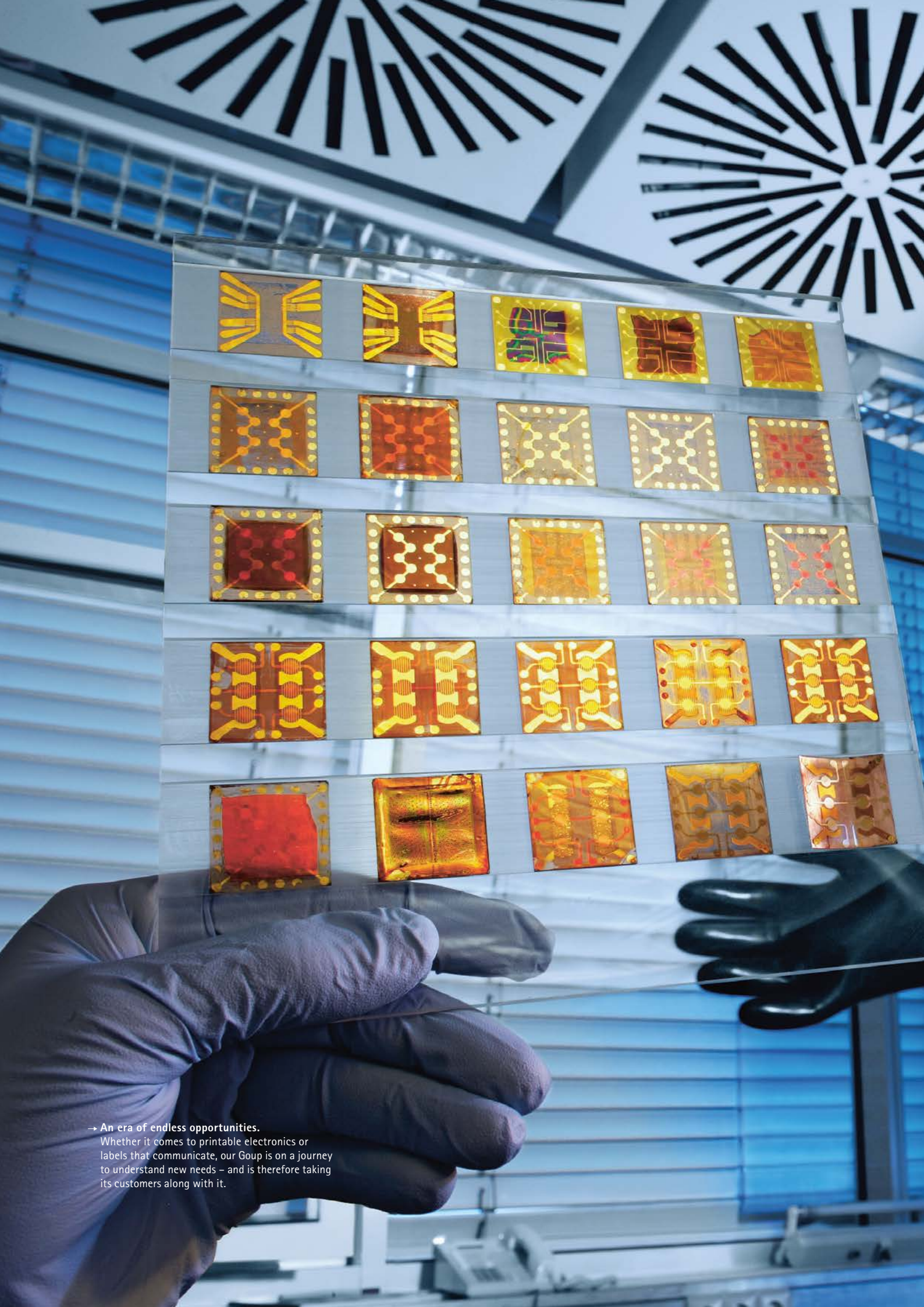
Rainbow strategy?
With this strategy, we are additionally addressing health care professionals such as physicians and pharmacists, who prescribe or recommend Nasivin® to our consumers. For us, it goes beyond merely prescribing the medicine; it's also about convincing doctors and pharmacists to act as brand ambassadors as well as increasing point-of-sale visibility – always based on an entirely unique, individual positioning, which of course reflects Consumer Health's overall strategy in India.

What does that actually mean for point-of-sale activities?
In India, pharmacist recommendations play a key role in the marketing mix. They do not just sell medicine, but are also people whom consumers trust and are often considered friends. If you want to be successful, you must therefore convince the pharmacist of your product.

20%

average annual growth rate in India since 2011

And has our company been able to convince people in India of Nasivin®?
In the last three years, Nasivin® has seen an average annual growth rate of 20%; in a market totaling INR 1.3 billion (around € 15.4 million) with more than 30 different brands, this growth is the best proof that we have attractive products in our portfolio.



→ **An era of endless opportunities.**
Whether it comes to printable electronics or labels that communicate, our Goup is on a journey to understand new needs – and is therefore taking its customers along with it.

Performance Materials

We make the world more colorful

They're becoming increasingly flatter, more powerful and ubiquitous. Displays are already playing a key role in communication today. And that is just the beginning of a dynamic process that is fundamentally changing the way we communicate. With our innovations, we are driving this development in close cooperation with our customers.

Walter Galinat, President and CEO of Performance Materials, and
Roman Maisch, responsible for Liquid Crystals Marketing & Sales

Interview with Walter Galinat and Roman Maisch

"The future is flat."

Passive viewing is a thing of the past – the future is about interaction. Thanks to innovative liquid crystals from Merck KGaA, Darmstadt, Germany, displays are capable of far more than simply glowing in a rainbow of colors.

Mr. Galinat, Mr. Maisch: The earth may be round, but your world is flat, isn't it?
Galinat: If you're referring to what I do professionally, then yes.
Maisch: And if I may add, it's getting flatter all the time (laughs).

Why is that?
Galinat: Because displays are flat and increasingly becoming our number one communication tool. We live in an age of ubiquitous interaction, which is both a tremendous opportunity and an enormous challenge. With materials for printed electronics, organic LEDs and organic photovoltaics, we have the possibility to create new applications and new benefits. But we need to take our customers with us on this journey.

And where is the journey heading?
Maisch: Toward the cities of tomorrow with smart windows or facades that speak, for instance. Toward autonomous driving or yoghurt cup labels that communicate. So far, we've mainly been talking to our customers about the technical aspects of displays, discussing topics such as curvature, flexibility or switching times. But technical feasibility is just one side of the coin. Together with our customers, we also need to look into the future so as to understand new needs even better than before.

Division

Performance Materials

The division consists of the Liquid Crystals, Pigments & Cosmetics and Advanced Technologies business units. Its market-leading products include liquid crystals for LCD televisions and other displays as well as functional fillers and effect pigments.

The business units

Pigments & Cosmetics

→ Pigments and additives for the printing, plastics and coatings industries
→ Cosmetics, food and pharmaceuticals

Liquid Crystals

→ Display materials

Advanced Technologies

→ OLED
→ Lighting & Photovoltaics
→ Electronic Materials
→ Performance Solutions

With the broadest offering in the industry, the product portfolio of our Liquid Crystals business unit is tailored to match the individual requirements of the full range of LCDs, from small displays in smartphones to ultra-large televisions.

Business figures

Sales	€ 1,642,092,500
EBITDA pre	€ 779,704,313

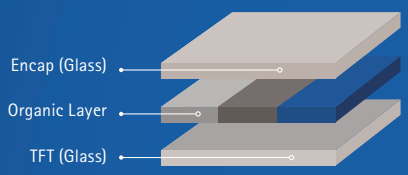
Sales by region

Europe	€ 164 million	10%
North America	€ 86 million	5%
Emerging Markets	€ 1,237 million	75%
Rest of World	€ 156 million	10%

Microcosmos

OLED

With its livilux® range, the company offers innovative materials for organic light-emitting diodes (OLEDs). In displays, OLEDs are responsible for brilliant colors, good contrast, fast switching times and low power consumption.

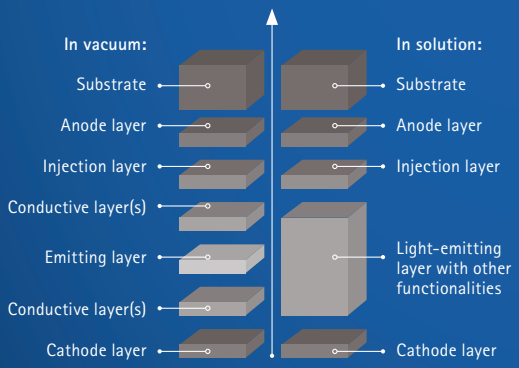


01

Structure → OLEDs consist of organic, semiconductive small molecules, which are deposited onto a glass substrate between conductive electrodes.

02

livilux® → The livilux® range includes small molecules for evaporation processes and soluble material systems for printing processes.



03

How an OLED works → When voltage is applied, electrons and electron holes recombine to form excitons. The molecular structure of the emitter materials determines the color.

04

Display → Since OLEDs consist of thin organic layers of only a few hundred nanometers, they can be used in not only rigid, but also flexible displays.

"We need to get out, talk to our customers and think outside the box."
(Roman Maisch)

In other words, working with customers to achieve advances?
Galinat: Yes. As the market and technology leader, we are expected to think further down the line and to launch new products onto the market. This starts with innovative products, but does not stop there. The aim is also always to expand our knowledge of both technology and society.

60%

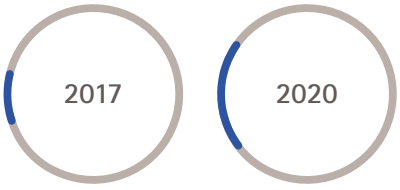
Global market share as a supplier of liquid crystals

So the Performance Materials division of Merck KGaA, Darmstadt, Germany, is becoming a type of think tank?
Galinat: The right way to put it is: we're thinking ahead. But that's something we always do, keeping an eye on what is technically feasible and what will benefit our customers. We're constantly tapping into greater and deeper expertise and sharing this knowledge with our customers. This is precisely the principle behind our Displaying Futures symposium, which took place in South Korea in 2013: using unexpected benefits to surprise and then work with customers to develop exactly what they're looking for. For this purpose, we're bringing display manufacturers together with architects, designers and trend researchers, an approach that enables us to look at the entire value chain.

Is that how you're creating new markets?
Maisch: Well, it's how we're helping to shape the markets that are so important to us. Here's an example: The question as to how we'll be able to apply organic light-emitting diodes, or OLEDs, in the future can no longer be answered in the laboratory alone. For this purpose we need to get out and talk to our customers, think outside the box, and offer inspirational new ideas.
Galinat: Markets don't fall from heaven; they are created. This requires patience, sometimes for years or even decades. To us it's clear that the future is flat – and it will entail applications that we can't even begin to imagine today.

"We're looking at the entire value chain."

Expected market share of OLED and LCD televisions



93% LCD televisions
7% OLED televisions

80% LCD televisions
20% OLED televisions

→ Customers take center stage.
Sometimes a single drop leads to a breakthrough. Yet until reaching this point, a company has to trust in its own abilities – and in those of its partners and customers, too.

We make cutting-edge research a reality

Lab Solutions, Bioscience, Process Solutions – can these three areas be served equally well? Certainly, says the CEO of the Life Science Tools division Yates, "By thinking critically and having the courage to listen to customers."

A conversation with Robert Yates

“Critical thinking is vital in our business.”

Three business units, one global team, one clear objective: Enabling science for life science researchers and manufacturers with tools that increase the efficiency and impact of their work.

“This calls for trusting relationships with our partners,” says Robert Yates, the CEO of the Life Science Tools division of Merck KGaA, Darmstadt, Germany. And the courage to listen to customers.

Robert Yates
President and CEO of the Life Science Tools division

Customers are our compass

According to Yates, “Critical thinking is vital in our business.” That’s what helps the President and CEO of the Life Science Tools division most in his work. Far more than hierarchical structures, and far more than entrenched routines. “I’m trying to reduce bureaucratic processes to an absolute minimum,” says Yates. “In exchange, I expect my teams to show leadership and accountability. That’s something I build and rely on.” This is the precondition for exploiting the full potential of the life science tools division and generating above-average growth in the future as well.
He says this without any hyperbole and with clear determination to walk the talk by managing, acting and making decisions in this way. After all, Yates and his teams operate in a constantly changing environment where clients are always upfront and center. “We align ourselves with clients, they are our compass and

Division

Life Science Tools

The Life Science Tools division of Merck KGaA, Darmstadt, Germany, offers solutions that help scientists to conduct life science research more easily, efficiently and economically. The Life Science Tools division is one of the leading suppliers of tools for the life science industry.

The business units

Lab Solutions

→ Lab Water
→ BioMonitoring
→ Lab Essentials

Bioscience

→ Life Science
→ Discovery and Development Solutions

Process Solutions

→ BioPharm Process Solutions
→ Pharm Chemicals Solutions

A reliable partner: Process Solutions offers more than 400 pharmaceutical raw materials worldwide.

Business figures

Sales	€ 2,627,506,602
EBITDA pre	€ 642,821,732

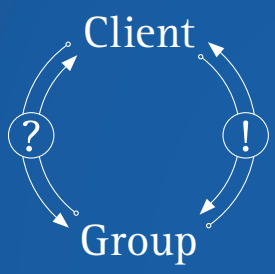
Sales by region

Europe	€ 1,011 million	39%
North America	€ 712 million	27%
Emerging Markets	€ 642 million	24%
Rest of World	€ 263 million	10%

Microcosmos

EZ-Product Family

The EZ-product family is designed to facilitate microbiology workflows in quality assurance and quality control laboratories. The EZ-Pak® Dispenser Curve launched in 2013 makes membrane dispensing faster and easier and completes the product line.



01

Identification → Identify unmet client needs and workflow pain points in close collaboration with the client and define requirements.

02

Development → Innovation team develops solution approaches. Alpha-testing: prototype is tested in a simulated environment in close cooperation with the client.

03

Verification → Back to the application lab: optimization based on results from alpha-testing. Beta-testing of optimized prototype with customer optimization based on feedback. Final comprehensive testing of product requirements.

04

Product Launch → In combination, the products of the EZ-family provide optimal performance and streamline the bioburden analysis workflow.

indicate the direction in which we can work together to enable science, offering beneficial solutions."

For example, in the Bioscience business unit these are life science researchers, who study complex biological systems in order to discover new therapies and develop better medicines. "We are of course also following the trend toward automation and miniaturization in research," Yates says. "We've got to meet this trend while fulfilling the sustainability requirements of our customers at the same time." A customer once summed this up as follows: "To us, it's crucial for the Life Science Tools division to understand the complexity of our work."

And it's crucial for the Group to reduce this complexity while increasing efficiency across all three of its business units. The continuous further development of the EZ-product family, for example valves and filtration heads with quick-fit connections, is one example of how the Lab Solutions business unit is helping to meet growing requirements in laboratory work. Or the Clarisolve® depth filters offered by the Process Solutions business unit for single-stage clarification of pretreated feed streams. With Clarisolve®, customers can now take full advantage of high-density pretreated feed streams and improve overall process economics.

> "To us, it's crucial for our Group to understand the complexity of our work."

"To address these challenges, the company relies on direct customer feedback," says Professor Albert Jeltsch, Director of the Institute of Biochemistry at the University of Stuttgart, which uses the Group's Muse™ Cell Analyzer, among others. "This enables us to determine in real time the cell concentration, apoptosis as well as the cell cycle with even greater accuracy and precision," says Jeltsch.

Lab Solutions, Bioscience, Process Solutions – can all three areas be served equally well at the same time? "Yes of course," says Yates, "with plenty of imagination and innovative power." As Yates explains, this will ensure that the Life Science Tools division's "innovation pipeline is always well-stocked."

The Life Science Tools division produces not only tools, but also laboratory materials for the life science industry.

The cell analyzer Muse™ is used by the University of Stuttgart, among others.

#01

Group Management Report

Major sites by division

Site	*Operations*
Biopharmaceuticals	
Darmstadt, Germany	Headquarters of the Biopharmaceuticals division, Marketing & Distribution, Production, Research & Development hub
Coursier sur Vevey, Switzerland	Production, Distribution
Mollet del Valles, Spain	Marketing & Distribution, Production, Research & Development
Semoy, France	Production, Distribution
Bari, Italy	Production, Research & Development
Rio de Janeiro, Brazil	Marketing & Distribution, Production, Research & Development
Rockland, USA	Research & Development, Distribution
Mexico City, Mexico	Production, Distribution
Beijing, China	Research & Development hub
Billerica, USA	Research & Development hub
Tokyo, Japan	Research & Development hub
Consumer Health	
Darmstadt, Germany	Consumer Health headquarters, Production, Marketing & Distribution
Spittal, Austria	Marketing & Distribution, Production
Dijon, France	Marketing & Distribution
Hull, UK	Marketing & Distribution, Production
Jakarta, Indonesia	Marketing & Distribution, Production, Research & Development
Performance Materials	
Darmstadt, Germany	Performance Materials headquarters, Production, Marketing & Distribution, Research & Development
Gernsheim, Germany	Production, Distribution
Atsugi, Japan	Production, Marketing & Distribution, Research & Development
Shanghai, China	Production, Marketing & Distribution, Research & Development
Poseung, South Korea	Production, Marketing & Distribution, Research & Development
Taoyuan, Taiwan	Production, Marketing & Distribution, Research & Development
Life Science Tools	
Billerica, USA	Headquarters of The Life Science Tools division, Marketing & Distribution
Bedford, USA	Production, Marketing & Distribution, Research & Development
Jaffrey, USA	Production, Distribution
Darmstadt, Germany	Production, Marketing & Distribution, Research & Development
Molsheim, France	Production, Marketing & Distribution, Research & Development
Beijing, China	Production, Distribution
Bangalore, India	Production, Marketing & Distribution

Fundamental Information about the Group

The Group and its divisions

The Group, which is headquartered in Darmstadt, Germany, is a global corporate group. With a history dating back nearly 350 years, it is the world's oldest pharmaceutical and chemical company. The Group holds the global rights to the "MERCK" name and brand. The only exceptions are Canada and the United States, where the company operates as EMD. The Group's product portfolio ranges from innovative pharmaceuticals and biopharmaceutical products, to specialty chemicals, high-tech materials and life science tools. The Group markets its wide range of products within its four divisions: Biopharmaceuticals, Consumer Health, Performance Materials and Life Science Tools.

Biopharmaceuticals

The Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, discovers, develops, manufactures and markets innovative prescription drugs to treat cancer, multiple sclerosis (MS), infertility, and growth disorders, as well as certain cardiovascular and metabolic diseases and allergies. As the company's largest division, the Biopharmaceuticals division generates 56% of Group sales and 57% of EBITDA pre one-time items (excluding Corporate and Other). The Biopharmaceuticals division was formed in 2007 with the acquisition of the Swiss biopharmaceutical company Serono SA, which was integrated stepwise into the Group's traditional business with prescription drugs. The integration process progressed steadily in recent years and was completed after divesting the former Serono headquarters in Geneva, Switzerland in 2013 and fully transferring divisional headquarters to Darmstadt.

The Biopharmaceuticals division commercializes its products worldwide and has a strong presence in established markets. The regions of Europe and North America contributed 63% of divisional sales in 2013. However, the Biopharmaceuticals division has also been operating in emerging markets for over three decades. This presence was continuously further expanded in recent years. In 2013, the division generated 30% of sales in that region, which is higher than the share of sales in emerging markets at many other pharmaceutical companies in Europe or the United States.

The Biopharmaceuticals division has a strong focus on biopharmaceuticals

The Biopharmaceuticals division sells mainly biotechnologically produced drugs. Rebif® is the top-selling product. It is used to treat relapsing forms of multiple sclerosis (MS), which is one of the most common neurological diseases among young adults.

In Oncology, Merck KGaA, Darmstadt, Germany, offers Erbitux® for the targeted treatment of metastatic colorectal cancer. Erbitux® is the second best-selling drug in the Biopharmaceuticals division's product portfolio. This monoclonal antibody is also a standard in the treatment of squamous cell carcinoma of the head and neck.

The Biopharmaceuticals division also offers products that help couples to conceive a child. The division has a complete portfolio of recombinant gonadotropins, including Gonal-f®, the most frequently prescribed gonadotropin worldwide. The products in the Fertility franchise are an important growth driver for the Biopharmaceuticals division. This is primarily due to couples postponing childbearing until later in life when natural fertility declines.

The General Medicine franchise comprises brand-name products to treat cardiometabolic diseases. Although no longer patent-protected, these are still the therapies of choice for numerous diseases. This applies, for example, to Glucophage® containing the active ingredient metformin, the drug of choice for first-line treatment of type 2 diabetes, or Concor®, a drug for chronic cardiovascular disease. Particularly in emerging markets, there is a continuous rise in demand for cardiometabolic therapies. This is due to both increasing life expectancy and in part also to growing prosperity in this region, along with the resulting changes in lifestyle and eating habits.

→ *The Group and its divisions*

The Biopharmaceuticals division also develops advanced injection devices

The Biopharmaceuticals division is continuously working to improve ways to administer medicines and active ingredients. For several years, therefore, the Biopharmaceuticals division has been developing novel, more user-friendly injection devices, which make injections less painful and at the same time more reliable for patients than conventional, pre-filled syringes. In addition, these products make it easier for medical staff to check whether patients adhere to their therapeutic regimen. Examples are the Gonal-f® RFF Redi-ject™ injection device and the electronic auto-injection device Rebif® Rebidose. These disposable injection devices were approved by the U.S. Food and Drug Administration in 2013 after already having been successfully used in many countries. An optimized and expanded version of the new easypod® system was introduced in Europe in 2013. This is an innovative delivery device for the treatment of growth hormone deficiency.

The Group is also active in the field of allergology. Subsequent to the acquisition of the remaining shares in Allergopharma in December 2012, the Group intends to further expand its product range for the global allergy market. The Allergopharma unit is specialized in developing high-dose hypoallergenic products for specific immunotherapy and diagnosis of type 1 allergies (such as hay fever or allergic asthma). In 2013 the Group broke ground on a new production facility for this unit in Hamburg, Germany in order to serve new markets, such as China, with these products.

Consumer Health

The Consumer Health division of Merck KGaA, Darmstadt, Germany, manufactures and markets over-the-counter pharmaceuticals. The division focuses on a number of well-known strategic brands, e.g. Bion®3, Nasivin®, Femibion®, Seven Seas®, Sangobion®, Cebion®, Sedalmex® and Kytta® and contributed 4% to Group sales and 2% to EBITDA pre one-time items (excluding Corporate and Other) in 2013. Consumer Health has high market penetration in Europe, Latin America as well as Southeast Asia. The division is also generating very strong growth in Russia and Emerging Markets, particularly in India, Indonesia and Brazil, which have firmly established themselves among the division's top-ten markets in terms of sales.

Global megatrends favor future growth of Consumer Health. People are becoming more health-conscious and concerned with their own physical well-being. Preventive health care and as little invasive therapy as possible are becoming increasingly important – in both established and emerging markets, characterized by a growing middle class with specific needs.

Performance Materials

The Performance Materials division of Merck KGaA, Darmstadt, Germany, comprises the Group's entire specialty chemicals business. It offers high-tech performance chemicals for applications in fields such as consumer electronics, lighting, coatings, printing technology, plastics applications, and cosmetics. In 2013, Performance Materials contributed 15% to Group sales and 23% to EBITDA pre (excluding Corporate and Other). The EBITDA pre margin was 47.5% of sales. This reflects the far above-average profitability of the business.

Performance Materials comprises three business units: Liquid Crystals, Pigments & Cosmetics, and Advanced Technologies.

→ *The Group and its divisions*

Performance Materials is also very active in the OLED sector

Liquid Crystals generates more than 70% of divisional sales. With a market share of over 60%, the company has established itself as the global market and technology leader in liquid crystal mixtures. The market is highly consolidated. In addition, there are high barriers to market entry due to the technological complexity of liquid crystals and the high quality requirements of customers and consumers. The seven largest LC display manufacturers are among the customers of the liquid crystals business. Performance Materials has the broadest product offering in the industry and also offers liquid crystals based on PS-VA and IPS technologies. This enables the division to meet individual customer needs and offers solutions for all display sizes, from smartphones and tablet computers to large-area television screens. The division also manufactures and markets materials for organic light-emitting diodes (OLEDs), which are used in innovative lighting applications and display technologies.

Pigments & Cosmetics develops and markets a comprehensive product portfolio of effect and functional pigments, spanning a variety of colors and shimmer effects. The pigments are primarily processed into automotive and industrial coatings, plastics, printing, materials used in installations for renewable energy production, cosmetics, and counterfeit prevention applications. The product portfolio also includes high-quality cosmetic products for use in skin, hair and oral care, including UV filters.

By providing innovative research and development, the Advanced Technologies business unit bolsters the growth of the Liquid Crystals and the Pigments & Cosmetics business units.

Life Science Tools

The Life Science Tools division is a leading supplier of life science tools

The Life Science Tools division of Merck KGaA, Darmstadt, Germany, has a broad product and technology portfolio and offers innovative solutions for the life science industry. Life science comprises the research branches of natural and engineering sciences concerned with the structure and behavior of living organisms. The division's products and services are used in the research, development and manufacture of biotechnological and pharmaceutical drug therapies, and for general laboratory applications. The division was established in 2010 following the acquisition of the Millipore Corporation. It is a leading supplier of life science tools.

In 2013, the Life Science Tools division contributed 25% to Group sales and 18% to EBITDA pre (excluding Corporate and Other). The majority of sales are generated by consumables. This enables the division to achieve recurring sales and stable, attractive cash flows. A highly diversified and loyal customer base additionally ensures a low risk profile. At the same time, the Life Science Tools division benefits from its broad portfolio and its global reach.

The Life Science Tools division comprises three business units: Bioscience, Lab Solutions and Process Solutions. The main product groups of the Bioscience business unit include tools and consumables for filtration and sample preparation, reagents and kits for cell biology experiments, as well as small tools and consumables for cell analysis. With these products, the Life Science Tools division supports its customers in understanding complex biological systems and identifying new target molecules. The Bioscience business unit contributed 16% to divisional sales in 2013. The Life Science Tools division offers complete and validated applications to make research processes faster and more efficient. The Bioscience business unit is highly innovative. A solid proportion of annual sales are achieved with new products. Examples include the Muse™ cell analysis system and the Direct Detect™ biomolecular quantification system. In 2013, these products were recognized with numerous innovation awards (for example, the R&D Magazine 100 Award).

→ *The Group and its divisions*

The Lab Solutions business unit manufactures products for research as well as analytical and clinical laboratories in a wide variety of industries. The business unit accounts for 42% of divisional sales. It is one of the leading suppliers of laboratory water equipment, laboratory chemicals and consumables. In addition, Lab Solutions develops and markets test solutions to identify microbial contamination, for example in pharmaceutical products, food or drinking water. For inorganic chemistry, Lab Solutions supplies ultrapure reagents, including salts, acids, caustic alkalis, and buffering agents. It also manufactures reference materials for instrumental analysis and products for inorganic trace analysis.

The products offered by Process Solutions help drug manufacturers to conduct research more efficiently

The Process Solutions business unit offers a diversity of products to pharmaceutical and biotechnology companies that enable customers to develop large- and small-molecule drugs safely, effectively and cost-efficiently. Accounting for 42% of the Life Science Tools division sales, Process Solutions offers its customers continuous innovations, highest quality standards as well as high reliability of supply, and is growing faster than the competition.

In addition, the business unit's portfolio comprises more than 400 chemicals for the synthesis of active pharmaceutical ingredients as well as drug delivery compounds. The offering in biotech production comprises products supporting cell growth and gene expression, a wide range of filtration systems, as well as salts and sugars. The single-use solutions offered by the Process Solutions business unit provide increased operational flexibility to biopharmaceutical customers since they eliminate time- and cost-intensive cleaning procedures. Moreover, these single-use solutions are compatible with various products, reducing investment costs for the customer.

Objectives and strategies of the Group

In 2007, Merck KGaA, Darmstadt, Germany, launched a transformation process aimed at securing its business viability through profitable growth in highly specialized niche markets within the pharmaceutical and chemical sectors.

Second phase of the "Fit for 2018" transformation and growth program initiated

This process started with the large-scale acquisitions of Serono SA in 2007 and the Millipore Corporation in 2010. Afterwards, we embarked on the "Fit for 2018" transformation and growth program with a new executive management team. In the first phase, we created the foundation for profitable growth by introducing a new leadership organization and a comprehensive efficiency program that covers all businesses, functions and regions. The second phase is aimed at successively implementing the growth options identified. The Group will continue to develop its portfolio further by building on existing core competencies. The objectives here are:

- Closeness to existing businesses
- Innovative strength
- Customer proximity (to offer tailored solutions)
- Focus on specialty businesses

Moreover, the Group is aiming to expand its business model systematically and continuously to include new technologies. This also includes the planned acquisition of AZ Electronic Materials, which is aimed at broadening the product base and new technology offerings for customers, through which the Group can win new customers for existing business. This transformation into a specialist for innovative high-tech products operating in pharmaceuticals and chemicals is already reflected in our financials.

In Pharmaceuticals, the Biopharmaceuticals division already generates more than 60% of its sales with medicines of biotechnological origin. In 2006, we only had one such product: Erbitux®, which accounted for less than 10% of sales. The Chemicals business has increasingly become a high-tech materials business that offers a wide range of value-adding products. Today, high-tech materials and life science tools make up around 80% of sales in this sector. In 2006, the share was around 30%.

General principles and Group strategy

The year 2018 will mark the 350th anniversary of the Group. The general principles of the transformation and growth program "Fit for 2018" and the Group strategy are to serve as a compass beyond 2018 as well.

General principles

The long-term development of value and sustainability play a key role at the Group

In all its business endeavors, the Group orients toward **general principles**. They help those responsible within the company to shape strategic plans and to make decisions.

The structure of Merck KGaA, Darmstadt, Germany, with members of the **Merck family** as personally liable partners requires the Executive Board to pay special attention to the long-term development of value. Therefore, sustainability plays a special role at the Group. The objective is to align the long-term development of the company with the legitimate interests of shareholders, whose engagement in the Group is often of a shorter duration. That is why the Group's business portfolio must always be balanced so that it reflects an optimum mix of entrepreneurial **opportunities and risks**. The Group achieves this through sustained diversification in pharmaceuticals, chemicals and life science tools, as well as through its geographic breadth with respect to growth sources.

→ *Objectives and strategies of the Group*

For Merck KGaA, Darmstadt, Germany, the principle of **sustainability** applies not only to economic aspects. Instead, it also encompasses responsibility for society and environmental preservation. With its current and future product portfolio, the Group wants to help solve global challenges and shape a sustainable future. That is also why innovation is the basis of the company's business activities; it is the prerequisite for future growth. The Group is continually working on new products and service innovations for patients and customers and relies on a continual process of internal innovation throughout all areas of the company.

Group strategy

The Group is aiming for sustainable and profitable growth

The Group focuses on innovative and top-quality high-tech products in the pharmaceutical and chemical sectors. The company's goal is sustainable and profitable growth. The Group intends to achieve this by growing primarily organically and by further developing its competencies, but also by making targeted acquisitions that complement and expand existing strengths in meaningful ways. Building on leading branded products in all four divisions, the company aims to generate income that is largely independent of the prevailing economic cycles. Moreover, the aim is to further expand the strong market position in emerging markets in the medium to long term. In 2013, the Emerging Markets region contributed 36% to Group sales.

Strategic initiatives

Capability initiatives

As the Group continues to grow in size and the business becomes increasingly global, we want our company to be seen as ONE company. ONE Group stands not only for a strong brand, but also for a performance-oriented global company with a strong sense of "we". The company is more than the sum of its parts. For this purpose, we have launched four capability initiatives.

The capability initiative **ONE Brand** aims to strengthen the value of the brand, to increase the company's global visibility and reputation, to become more attractive to customers, partners and talent globally.

The framework for talent development, compensation and performance management is to be harmonized globally as **ONE Talent Development, Rewards and Performance Management.**

As part of this initiative, the Group will focus on establishing a consistent and integrated talent and performance management process and improving the talent portfolio by proactively identifying and sourcing talent as well as by ensuring workforce diversity.

The goal of the third capability initiative **ONE Process Harmonization, Standardization and Excellence** is to better coordinate processes and apply them consistently. This is particularly the case with software applications. Continuous improvement will take place through benchmarking. Ultimately, this will allow the Group to adapt rapidly to business changes as well as to integrate future acquisitions both seamlessly and efficiently.

→ *Objectives and strategies of the Group*

The importance of the Group's global headquarters in Darmstadt is to be underscored along the lines of **ONE global headquarters**. The company in Darmstadt is to become a vibrant home for creativity, exchange and innovation.

Our aim is to implement all capability initiatives in the medium term.

Business initiatives

With its business initiatives, Merck KGaA, Darmstadt, Germany, wants to capture new business opportunities

Furthermore, the Group has set up a range of **business initiatives** in order to expand the existing portfolio as well as to capture new business opportunities. The following initiatives are of major significance:

Biosimilars

In order to capture the opportunities offered by biosimilars, the Group set up a dedicated unit. The Group wants to use its expertise in developing, manufacturing and commercializing high-quality biotechnological medicines in order to create a competitive biosimilars portfolio. The focus is on developing molecules through in-house research and development as well as through partnerships.

Research & Development at the Biopharmaceuticals division

The Biopharmaceuticals division introduced a more entrepreneurial model to elevate the performance dynamics of its Research & Development. Based on Translational Innovation Platforms (TIPs), the division wants to foster long-term planning and an entrepreneurial mindset, supported by an independent advisory board of external experts.

OLEDs

The Performance Materials division of Merck KGaA, Darmstadt, Germany, aims to further expand its global leadership position in display materials. The Group expects OLED technology to increase in importance in the future. Performance Materials is therefore investing in developing a comprehensive OLED portfolio. By 2018, Merck KGaA, Darmstadt, Germany, aims to be a leading supplier of OLED materials.

Business strategies of the divisions

Biopharmaceuticals

The Biopharmaceuticals division aims to grow at least in line with the global pharmaceutical market

The Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, aims to become a preferred global biopharmaceutical partner, providing innovative specialty medicines, leading brands, and high-value solutions. Global megatrends such as world population growth and a general increase in life expectancy are bolstering the demand for our products. The aim is to grow at least in line with the global pharmaceutical market.

→ *Objectives and strategies of the Group*

Innovative drugs are the key to competing in mature markets, which remain the largest and most profitable markets for our products. In addition, we will use customized products and dosage forms to systematically capture the growth potential of emerging markets in order to further expand our leading position in key cardiometabolic diseases mainly based on our General Medicine products such as Glucophage®, Concor® and Euthyrox®.

The division continues to focus on the therapeutic areas of Oncology, Multiple Sclerosis, Fertility and General Medicine.

In Oncology, Merck KGaA, Darmstadt, Germany, launched the Erbitux® Reloaded program, the strategic focus of which is on building on the existing business to expand market share and to ensure market leadership in first-line therapy of metastatic colorectal cancer in patients with KRAS wild-type tumors. Based on the results of the FIRE 3 study as well as further retrospective analyses of pivotal trials, the Biopharmaceuticals division is emphasizing the importance of offering patients complete testing for RAS status in order to ensure optimum treatment. In Multiple Sclerosis, the vision is to remain a leader by providing innovative solutions that include drugs, devices and services to help people living with multiple sclerosis. The Biopharmaceuticals division plans to fully exploit the potential of Rebif®, its top-selling product, in an increasingly competitive multiple sclerosis market and to position it as the best interferon-based therapeutic option for patients who suffer from the relapsing form of the disease. The Biopharmaceuticals division intends to further expand its market leadership in Fertility especially by leveraging the comprehensive portfolio of products and life cycle management activities, and by capturing growth opportunities in emerging markets. In General Medicine, the Biopharmaceuticals division will focus on further boosting its efforts in emerging markets and enhancing the life cycle management of its products. In addition, the Biopharmaceuticals division intends to continue to strengthen its current portfolio through suitable partnerships.

The Biopharmaceuticals division wants to step up its activities in China, Brazil and North America

China and Brazil are key growth markets for the division. The Biopharmaceuticals division wants to step up its activities in these countries by 2018. At the same time, the Biopharmaceuticals division intends to further expand its activities in North America. The division is therefore examining potential business models such as alliances, acquisitions of start-ups as well as the launch of new products..

Consumer Health

Consumer Health aims to expand its market share in all key markets

In 2012 and 2013, the Consumer Health division of Merck KGaA, Darmstadt, Germany, undertook steps to strategically realign the internal organization while sharpening its focus on core brands and particularly attractive key markets. As of 2014, Consumer Health intends to push ahead with its growth agenda, particularly in emerging markets of Latin America and Southeast Asia. To this end, the division is pursuing a clear strategy: The aim is for Consumer Health to achieve a market share of at least 3% by 2021 in each of the division's top 20 markets (including France, Mexico, Brazil, Germany and the United Kingdom), with at least three brands in leading positions. An important milestone within the framework of this strategy will be the transfer of the Neurobion® and Floratil® brands from the Biopharmaceuticals division to the Consumer Health division in 2014. Neurobion® is a leading global brand in the vitamin B segment and Floratil® is a leading brand in the probiotic antidiarrheal segment in Brazil. Their transfer to Consumer Health will allow a stronger focus on consumer needs. As a consequence, the emerging markets exposure of Consumer Health will increase from 28% in 2013 to 51% in 2014, and Consumer Health will also increase the market share of the division in key markets such as Brazil, Mexico, India and Indonesia.

→ *Objectives and strategies of the Group*

Performance Materials

Performance Materials aims to further expand its market and technology leadership position in liquid crystals

The demand for high-tech products in general and for innovative display solutions in particular has seen high global growth in recent years. Nor is this trend expected to weaken in the coming years. Instead, Merck KGaA, Darmstadt, Germany, assumes that there will be increasing demand for these types of consumer goods from a growing middle class in emerging markets. Therefore, Performance Materials will defend its position as the market and technology leader for liquid crystals and further expand it as far as possible.

Since the typical life cycle of liquid crystal mixtures is less than three years, innovation will remain the key success factor. The liquid crystals pipeline is well-stocked with new technologies such as self-aligned vertical alignment (SA-VA), advanced fringe field switching (FFS) as well as projects beyond displays. The division wants to further position itself in the OLED market and play a leading role in this market segment in the medium to long term. Lower production costs for OLED displays are a precondition for this. External partnerships will also be used in the future to ensure the required exchange of technology and expertise.

In addition, the planned acquisition of AZ Electronic Materials and the resulting combination of two research and development teams will lead to further innovative solutions for customers in the electronics industry.

Within its Pigments & Cosmetics business unit, the Group will continue to focus on customers as well as the effect pigments business and selected technology segments in the functional materials business.

Life Science Tools

The Life Science Tools division aims to continue to outperform its peers

In order for the Life Science Tools division of Merck KGaA, Darmstadt, Germany, to continue to outperform its peers, the division is pursuing various strategic approaches. The Life Science Tools division will maximize the potential of the combined portfolio, drive market share growth in North America, Asia and Latin America, and increase sales generated by new products. The division's profitability is to improve by globalizing the entire portfolio and reducing organizational complexity. The Life Science Tools division will secure operational excellence by implementing systems such as Enterprise Resource Planning (ERP), delivering the highest standard of customer service, and cultivating talent in the organization. These measures are to be fully implemented by 2017.

→ *Objectives and strategies of the Group*

Strategic financial and dividend policy

The Group is pursuing a conservative financial policy

For reasons of sustainability, Merck KGaA, Darmstadt, Germany, generally follows a conservative financial policy. Apart from a solid balance sheet with transparent and healthy structures, this policy is reflected by the selection of financing sources, liquidity management, key financial indicators, dividend policy, and risk management.

The Group generates high business free cash flow and its return on capital employed is consistently improving. In the context of the Group-wide efficiency program currently underway, cash is being reserved with high priority to fund restructuring measures across all divisions and regions. Around € 800 million of one-time costs related to restructuring are planned to be incurred from 2012 to 2015. As of 2014, major acquisitions will again be on the company's agenda.

Moreover, cash is to be used for selective acquisitions in order to provide for future growth, for instance the planned takeover of AZ Electronic Materials (Performance Materials).

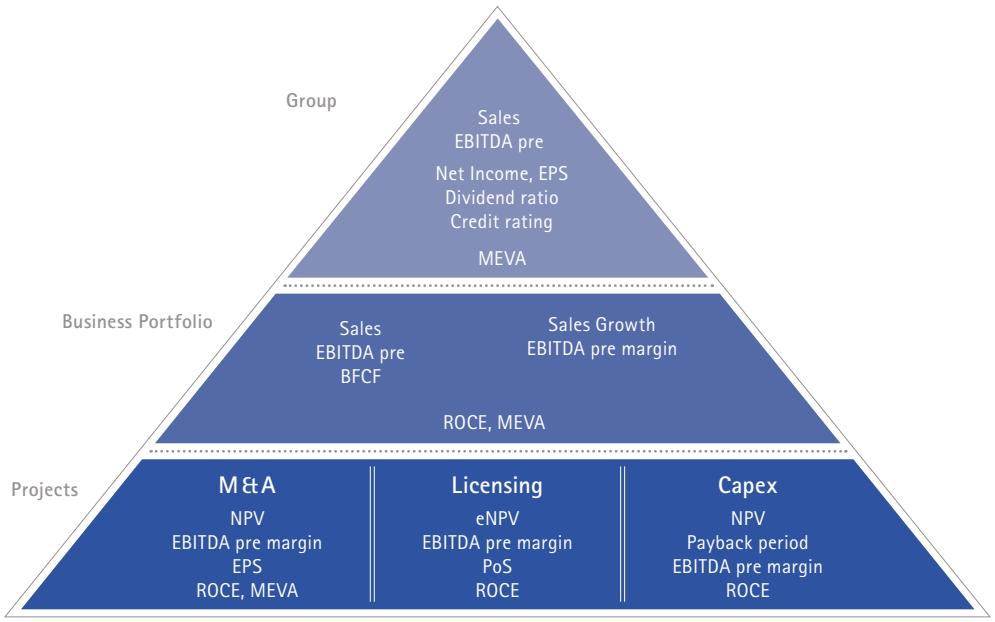
Lastly, the Group uses its cash for **dividend payments** to its shareholders. The Group's dividend policy is aimed at a moderate long-term sustainable payout ratio of 35% to 40% based on net income before one-time items.

Internal management system of the Group

As a global pharmaceutical and chemical company organized around four divisions with a diverse portfolio of products and services, the Group uses a comprehensive framework of indicators to manage performance. Within this framework, the most important KPI (key performance indicator) to measure the operational performance of the Group and its divisions is EBITDA pre.

EBITDA pre is the most important key performance indicator of the Group

The Value Creation and Financial KPI Pyramid, which summarizes the important financial performance measures of the Group, reflects the comprehensive framework of financial KPIs to steer our businesses and prioritize the allocation of our cash resources. It consists of three managerial dimensions, which require the use of different indicators: Group, Business Portfolio and Projects. Apart from its strong focus on operational performance, the Value Creation and Financial KPI Pyramid also emphasizes the need for measurable mid- and long-term value creation as well as the efficient allocation of cash to the most promising investment alternatives.



Explanations: EBITDA pre = Earnings before interest, income tax, depreciation and amortization pre one-time items, EPS = Earnings per share, MEVA = Value added of Merck KGaA, Darmstadt, Germany, BFCF = Business free cash flow, ROCE = Return on capital employed, NPV = Net present value, eNPV = expected Net present value (probability adjusted), PoS = Probability of success

→ *Internal management system of the Group*

Group and Division KPIs

Sales, EBITDA pre and business free cash flow serve as performance indicators for the development of the Group and its divisions

The three Group and division KPIs, namely sales, EBITDA pre and business free cash flow, are the most important financial KPIs used to assess the operational performance of the Group and its divisions. Reference to these KPIs can therefore be found in the report on economic position, the report on risks and opportunities, and in the report on expected developments. As the most important indicators of the Group's financial business performance, the Group and division KPIs are key elements of the Group's performance management and incentive system.

Sales

Sales are defined as the sales of goods and services rendered to external customers net of value added tax and after sales deductions such as rebates or discounts. Sales are the main indicator of business growth in the Group and therefore an important parameter of external as well as internal performance measurement.

Group | Sales

€ million/change in %	2013	2012	Change in %
Sales	**10,700.1**	**10,740.8**	**–0.4**

EBITDA pre

EBITDA pre is the main performance indicator measuring ongoing operational profitability and is used internally and externally. To allow for an understanding of the underlying operational performance of the Group and its four divisions, it excludes from the operating result depreciation and amortization in addition to specific income and expenses of a one-time nature. One-time items within EBITDA are restricted to five categories: integration costs/IT costs, restructuring costs, gains/losses on the divestment of business, acquisition costs and other one-time items. The classification of specific income and expense as one-time items follows clear definitions and underlies strict governance at corporate level. For example IT costs, which are not related to the integration of an acquired business, can only be classified as one-time items if they are related to a fundamental change in the global IT landscape of the Group or a division. Also, the category restructuring costs only includes one-time charges for globally defined and centrally approved restructuring programs. Restructuring costs incurred in 2012 and 2013 were directly related to the Group-wide "Fit for 2018" transformation and growth program.

Within the scope of internal performance management, EBITDA pre allows for the necessary changes or restructuring without penalizing the performance of the operating business.

→ *Internal management system of the Group*

Group | Reconciliation of EBIT to EBITDA pre

€ million/change in %	2013	2012	Change in %
Operating result (EBIT)	**1,610.8**	**963.6**	**67.2**
Depreciation/Amortization/Reversals of impairments	1,458.4	1,396.6	4.4
EBITDA	**3,069.2**	**2,360.2**	**30.0**
Restructuring costs	130.5	503.8	–74.1
Integration costs/IT costs	49.0	36.7	33.5
Gains/losses on the divestment of businesses	2.3	60.1	–96.2
Acquisition costs	0.0	1.0	–100.0
Other one-time items	2.3	3.1	–25.8
EBITDA pre	**3,253.3**	**2,964.9**	**9.7**

Business free cash flow (BFCF)

Apart from EBITDA pre and sales, business free cash flow (BFCF) is the third important Group and division KPI and therefore also used for internal target agreements and individual incentive plans. It comprises the major cash-relevant items that the individual businesses can influence. Broken down to the divisional level, it sums up EBITDA pre less main cash items such as investments in property, plant and equipment, software, advance payments for intangible assets, as well as changes in inventories and trade accounts receivable, all of which are under full control of the individual businesses. To manage working capital on a regional and local level, our businesses use the two indicators DSO (days sales outstanding) and DSI (days sales in inventory). The introduction of business free cash flow has led to considerable improvements in cash awareness as well as reduced working capital requirements.

Group | Business free cash flow

€ million/change in %	2013	2012	Change in %
EBITDA pre	**3,253.3**	2,964.9	9.7
Investments in property, plant, equipment and software as well as advance payments for intangible assets	–446.2	–366.5	21.7
Changes in inventory according to the balance sheet	59.7	157.2	–62.0
Changes in trade accounts receivable according to the balance sheet	93.2	213.7	–56.4
Business free cash flow	**2,960.0**	**2,969.3**	**–0.3**

→ *Internal management system of the Group*

Investments and value management

Sustainable value creation is essential to secure the long-term success of our company. To optimize the allocation of financial resources we use a defined set of parameters as criteria for the prioritization of investment opportunities and portfolio decisions.

Net present value (NPV)

Net present value is the main criterion for prioritizing investment opportunities

The main criterion for the prioritization of investment opportunities is net present value. It is based on the discounted cash flow method and is calculated as the sum of the discounted free cash flows over the projection period of a project. Consistent with the definition of free cash flow, the weighted average cost of capital (WACC), representing the weighted average of the cost of equity and cost of debt, are used as the discount rate. Depending on the type and location of a project different mark-ups are applied to the WACC.

Return on capital employed (ROCE)

In addition to NPV, ROCE is an important metric for the assessment of investment projects. It is calculated as the operating result (EBIT) excluding one-time items divided by the sum of property, plant and equipment, intangible assets and working capital.

Payback period

An additional parameter to prioritize investments into property, plant and equipment is the payback period, which indicates the time in years after which an investment will generate positive net cash flow.

Value added of Merck KGaA, Darmstadt, Germany (MEVA)

MEVA gives information about the value created in a period. Value is created when the return on the company's or divisional capital employed (ROCE) is higher than the weighted average cost of capital (WACC). MEVA metrics provide the Group with a powerful tool to weigh investment and spending decisions against capital requirements and investors' expectations.

Capital Market-Related Parameters

The operational performance of our businesses within a certain period provides an important basis for assessing the financial health of our company. In addition, the financial stability of the company is reflected by the following capital market-related parameters:

Net income and earnings per share (EPS)

The Group's financial stability is indicated by earnings per share, credit rating and dividend ratio

Earnings per share are calculated by dividing profit after tax attributable to the shareholders of Merck KGaA, Darmstadt, Germany, (net income) by the weighted average number of theoretical shares outstanding. The use of a theoretical number of shares takes into account the fact that the general partner's capital is not represented by shares. To provide a more comparable view, the Group also publishes EPS pre, which excludes

→ *Internal management system of the Group*

one-time items and amortization of intangible assets (mostly from the acquisitions of Serono SA and the Millipore Corporation) and is based on the company's underlying tax ratio.

Credit rating

The rating of the credit worthiness of Merck KGaA, Darmstadt, Germany, by external agencies is an important indicator with respect to our ability to raise debt capital at attractive market conditions. The capital market makes use of the assessments published by independent rating agencies in order to assist debt providers in estimating the risks associated with a financial instrument. Currently, the company is assessed by Moody's and Standard & Poor's (S&P). Here, net financial debt is an important indicator, which we define as current and non-current financial liabilities less cash and cash equivalents as well as current financial assets. A five-year overview of the Group's credit rating can be found in the report on risks and opportunities.

Dividend ratio

As a publicly listed company the Group strives to pay a reasonable dividend to shareholders based on the returns that we generate. With the aim of ensuring an attractive return to shareholders, the Group pursues a reliable dividend policy with a target payout ratio based on adjusted net income (reported net income plus one-time items, e.g. restructuring costs).

Other Relevant/Non-Financial Performance Measures

Apart from the indicators of the financial performance of our businesses, non-financial measures also play an important role in furthering the success of our company. From a Group perspective, specifically innovations in our businesses as well as the attraction and retention of highly qualified employees are of central importance. Further indicators of relevance to specific topics can be found in the Corporate Responsibility report.

Innovation

Innovation is the foundation of our business and will also be the prerequisite for future success in changing markets. We are continuously working to develop new products and service innovations for patients and customers, which is also reflected in our slogan "Living Innovation". Indicators for the degree of innovation are defined individually depending on the specifics of our businesses.

Talent retention

Employing a highly qualified and motivated workforce is the basis for achieving our ambitious business goals. Therefore, we put a strong focus on establishing the processes and the environment needed to attract and retain the right talent with the right capabilities at the right time. To measure how successful we are in our efforts, talent retention has been implemented as an important non-financial indicator.

Corporate Responsibility

Responsible conduct with respect to our employees, products, the environment, and society plays a key role in the corporate culture of Merck KGaA, Darmstadt, Germany. In the course of our nearly 350-year history, the principle of corporate responsibility has become a permanent pillar of our corporate governance. It constitutes part of our daily conduct and thus a fundamental prerequisite for our business success.

More information on this topic can be found in our 2012 Corporate Responsibility Report[1].

Strategy and management

Our CR Committee steers all of our corporate responsibility activities throughout the Group

Our corporate responsibility (CR) activities are steered by our Group-wide CR Committee, which consists of representatives from the Group's divisions, as well as from relevant Group functions. Our ambition is to be a global company that creates added value for consumers, our market partners and the community while also helping them lead better lives. We endeavor to achieve positive recognition for the Group in society and have an obligation to operate safely as well as respect the environment.

Mankind is confronted with major global issues, such as the increasing demand for affordable, renewable energy, a growing need for access to health – especially in developing health care systems – and the prevention of greenhouse gas emissions. We believe that we can do our part to resolve these global challenges through our innovative pharmaceutical, chemical and life science products, as well as through responsible corporate governance; in this way, we can prepare ourselves for the future while increasing the Group's acceptance in society.

The Group's CR engagement is focused on three spheres of activity:

- **People:** We strengthen our company's ability to act by recruiting, developing and motivating the most suitable employees. We want to help society function better and aim to set the example for ethical conduct.
- **Products:** Our products serve people's current and future needs, and many of them contribute to environmental protection. Safety and ethical aspects matter just as much as business success.
- **Environment:** In the manufacture of our products, we seek to impact the environment as little as possible. Safety, environmental protection and quality management are absolutely essential to this goal.

The Group is committed to the United Nations Global Compact, as well as to the Responsible Care Global Charter of the International Council of Chemical Associations

The company supports relevant initiatives concerning responsible corporate governance. We participate in the United Nations Global Compact and are committed to complying with the compact's principles regarding human rights, labor standards, environmental protection, and anti-corruption. Another way in which we live our corporate responsibility is our commitment to follow the guidelines of the Responsible Care Global Charter, an initiative of the International Council of Chemical Associations (ICCA). This charter aims to continuously improve the products and services of the chemical industry in terms of environmental protection, health, plant safety, and security.

[1] Merck KGaA, Darmstadt, Germany, applies the G3.1 Sustainability Reporting Guidelines of the Global Reporting Initiative

→ *Corporate Responsibility*

The Group maintains an ongoing dialogue with its various stakeholders

In addition, we are involved in the Chemie[3] initiative, a collaboration between the German Chemical Industry Association (VCI), the German Employers' Federation of the Chemical Industry (BAVC), and the German Mining, Chemical and Energy Industrial Union (IGBCE). This initiative aims to make sustainability a core part of the chemical industry's guiding principles and seeks to jointly drive the sector's position within the German economy as a key contributor to sustainable development.

To the Group, corporate responsibility does not merely mean actively taking action, but also actively listening. The dialogue with the various stakeholder groups is therefore highly important to us. These stakeholders include our employees, our business associates, the Merck family, investors, regulatory agencies, and associations. We engage in a continuous exchange with our stakeholders in order to transparently demonstrate how we live the Group's Values.

This engagement has earned the company a variety of recognition, not the least of which was our listing on the FTSE4Good Index once more in 2013. To be included in this leading international sustainability index, a company has to demonstrate socially conscientious, ecological and ethical conduct.

Responsibility for people: Social responsibility

Merck KGaA, Darmstadt, Germany, sees itself as part of the community, not only at its individual locations, but also at global level. Taking responsibility towards society is an integral part of our entrepreneurial approach. We believe that we can make an important contribution to society through our knowledge, our skills and our products.

The Group focuses particularly on health projects and promoting education

Our social responsibility activities are primarily focused on those areas in which we have specific expertise stemming from our core businesses. We are thus engaged in health care projects and support education, specifically in the natural sciences. We provide disaster relief in emergency situations, especially in those regions in which we also do business.

To increase the effectiveness of our projects, we have consolidated our resources into three global lighthouse projects:

1. The Group's Praziquantel Donation Program: We are partnering with the World Health Organization (WHO) to combat the worm disease schistosomiasis in school children in Africa (see also p. [55]).
2. Global Pharma Health Fund: This is a charitable initiative funded by Merck KGaA, Darmstadt, Germany, to fight counterfeit medicines in developing countries and emerging markets (see also p. [56]).
3. The Deutsche Philharmonie Merck sponsered by Merck KGaA, Darmstadt, Germany, a cultural ambassador: With up to 80 professional musicians and a very diverse concert repertoire, this orchestra is an integral part of the cultural life in the vicinity of our Group headquarters in Darmstadt and also tours internationally.

Spending on social engagement activities totaled € 46.2 million in 2013

In addition, our subsidiaries are engaged in local projects. We have defined a general set of criteria for selecting projects, and the decisions concerning specific local projects are made by our subsidiaries. In 2013, we spent a total of € 46.2 million on corporate social responsibility activities. Of the total monetary and non-monetary donations made by our subsidiaries in 2013, 63% went to Emerging Markets (Latin America and Asia, excluding Japan), 36% to Europe, as well as 1% to North America and the Rest of World region.

→ *Corporate Responsibility*

Responsibility for people: Employees

In accordance with the Group's Values, we live a culture of mutual esteem and respect. We want to become better and faster by recruiting, developing and motivating the most suitable employees. In addition, we would like to further enhance the performance culture of our company and promote the diversity of our workforce.

The Group had more than 38,000 employees as of the end of 2013

As of December 31, 2013, the Group had 38,154 employees worldwide (2012: 38,847). Merck KGaA, Darmstadt, Germany, was represented by a total of 191 companies in 66 countries, with 63 production sites located across 21 countries.

Fit for 2018

The "Fit for 2018" transformation and growth program impacted HR work in 2013 as well. At the majority of the Group's sites, the structural prerequisites were put in place and agreements were reached with the respective social partners in order to create a socially responsible approach to the workforce reduction required by the transformation process. For example, in Germany, around 1,200 employees chose to participate in a partial retirement program or a voluntary leaver program. By the end of 2013, we had completed the process of moving the Biopharmaceuticals division headquarters from Geneva to Darmstadt. In comparison with 2012, the total number of employees in 2013 decreased by 693.

Vocational and advanced training

The Group continues to take the vocational and advanced training of its employees very seriously. We have therefore maintained a constant vocational training rate at Darmstadt, the largest site of the Group. In 2013, a total of 516 young people were enrolled in vocational training programs at this site, in 23 different occupations. At other sites where we offer vocational and advanced training, we have likewise maintained a high vocational training rate.

"Start in die Ausbildung", a German program to prepare young people for an apprenticeship, was continued with 20 interns, the same number as in 2012.

In 2013, Merck KGaA, Darmstadt, Germany, harmonized its approach to advanced training across the Group

In 2013, we globally harmonized our approach to advanced training, better gearing it towards the future business focus of the Group. Here, our goal is to advance the competencies and abilities of our employees and managers so that they can help implement our corporate strategy more efficiently while at the same time unlocking their individual potential. We have accordingly revised our training programs at all levels.

Performance management

In 2012, we ran a pilot of an integrated performance and talent management process, which we then rolled out broadly in 2013. The Group considers it important to identify employee potential early on and foster it on an individual basis. We want to offer our talent attractive career opportunities as well as continual personal and professional prospects within the company.

The new process systematically combines talent recognition with the Performance Management Process that allows us to objectively assess the performance of each individual employee. This assessment is a crucial prerequisite for personal development as well as for the overall success of the company. Key features here are clear objectives, differentiated and open feedback on performance, as well as individual development

→ *Corporate Responsibility*

plans. To date, around 22,400 employees have participated in the globally harmonized Performance Management Process.

The Group aims to further strengthen its performance culture

Internal talent development and external recruiting

Through the above-mentioned process, the Group aims to bolster its performance culture and develop talent in a more targeted manner. In 2013, we achieved our first successes and expanded our pool of internal talent, which makes it easier to fill management positions with internal staff when they become vacant. In 2013, 92% of management position vacancies were filled by internal candidates. The Group also recruited external executives for several key positions in the organization in order to add new outside perspectives to our long-standing in-house expertise.

Merck KGaA, Darmstadt, Germany, is using the motto "Make great things happen" to position itself in the global job market, which conveys to potential applicants a sense of what makes our company unique: an inspiring, motivating work environment in which innovations thrive; an environment in which everyone has the opportunity to apply their ideas and engagement to benefit customers and the company, while at the same time growing as employees.

Occupational health and safety

As a responsible employer, it is especially important to us to do everything in our power to prevent workplace-related illnesses and accidents. We apply the lost time injury rate (LTIR) as an indicator to determine the success of measures aimed at accident prevention as well as occupational health and safety. This internationally recognized key performance indicator describes the number of workplace accidents resulting in lost time per one million working hours. The Group set itself the goal of reducing the LTIR to 2.5 by 2015. In 2013, we again outperformed this goal, achieving an LTIR of 2.1.

Incidents

	2009	2010	2011	2012	2013*
LTIR (Lost Time Injury Rate)	3.5	3.0	2.0	2.3	2.1
Number of fatalities	0	1	0	0	0

*Incl. temps

The BeSafe! program is helping to further reduce the number of workplace accidents

This continuous rate of improvement can be particularly attributed to the BeSafe! program, which was launched in 2010. In 2013, we continued to sensitize our employees to workplace hazards through numerous activities and awareness campaigns. BeSafe! is a Group-wide initiative with harmonized standards and local modules for the specific requirements at individual sites. This program focuses on engaging managers in the safety culture and building their buy-in; it aims to make safety an intrinsic value and empower our employees to take responsibility for their own safety.

Since 2010, the Group has been presenting the Safety Excellence Award in order to underscore the importance of safety. It is granted to all production sites with no workplace accidents on record for the year. In 2013, 38 out of 63 production sites were recognized.

→ *Corporate Responsibility*

Workforce diversity

We believe that workforce diversity leads to greater innovation and promotes better team performance, which is why we aim to foster diversity among our employees. To this end, the Executive Board has defined three focus areas. As a global company, we particularly endeavor to achieve a good balance between different cultures and nationalities, between different age groups, as well as between male and female employees.

The Diversity Council is responsible for the diversity and inclusion strategy of the Group

In addition to creating the position of Chief Diversity Officer, who is responsible for strategically managing diversity within the Group, Merck KGaA, Darmstadt, Germany, also established the Diversity Council in 2013. This aims to build further buy-in for diversity within the company. The council consists of high-ranking managers from every division as well as from several Group functions; it is primarily concerned with developing and refining our diversity and inclusion strategy.

In addition, the company supports specific employee networks in order to foster exchange among like-minded individuals, building expertise that benefits the company. For example, in 2013, we worked with a network of international employees to better gear our Darmstadt site to an international workforce. This helps employees from across the globe to easily and quickly familiarize themselves with Group headquarters, thereby increasing work efficiency within the company.

Focus areas: Internationality, demography, gender ratio

One of our fundamental principles is to recruit employees from the countries in which we operate and offer them career development opportunities. People from a total of 114 different nations work at the Group. Only 27% of the Group's employees are German citizens, and 72% work outside of Germany. Three of our four divisions are currently headed by non-Germans.

In Germany, several other EU countries and the United States, we must prepare ourselves for demographic change. In these countries, the average age of our employees exceeds 40 – and we assume that this figure will continue to rise in the coming years. In Europe, we are addressing these demographic challenges through various programs. These include adapting workplaces to the needs of older employees and establishing a health management program to maintain their ability to do their jobs.

The Group intends to increase the percentage of female employees wherever they are underrepresented

Women currently make up 42% of our entire workforce. Since the ratio of women to men varies widely across the different regions, divisions and functions, the company has set itself the goal of increasing the percentage of female employees wherever they are underrepresented.

Filling management positions

We believe that balanced diversity among management enhances career advancement opportunities for talented employees while also helping to provide a broad experience base within the company. It furthermore allows for differentiated entrepreneurial decision-making, thereby making a significant contribution to the success of the company.

→ *Corporate Responsibility*

As a global company, Merck KGaA, Darmstadt, Germany, considers it highly important to have an international management team. Currently, 61% of our managers – meaning positions rated Global Grade 14 and up in our Global Grading System – have a nationality other than German. Altogether, 59 different nationalities are represented in such positions.

The percentage of management positions held by women (Global Grade 14 and up) is currently 25% Group-wide. In the subsidiaries outside of Germany, this percentage is higher than at Group headquarters in Darmstadt. Likewise, more women work in managerial positions in our Pharmaceuticals divisions than in our Chemicals divisions. Certain Group functions such as IT have a lower percentage of women in management positions. However, the figures are clearly increasing across the Group as a whole. The Group has reached its strategic goal of raising the percentage of management positions held by women from 25% to 30% and intends to further increase this percentage by 2016. In order to achieve this ambition, the Group is implementing numerous measures at the local level. 2013 was the first time that a woman was appointed as head of a Group division.

Work-life balance

The Group wishes to help its employees achieve a good balance between their professional and personal objectives. This maintains and strengthens their motivation and performance potential, making it easier for them to plan their daily lives.

In Germany and other countries, Merck KGaA, Darmstadt, Germany, offers various flexible working hour models. Globally, approximately 5% of our employees worked part-time in 2013. 8% of our part-time employees are men.

The assistance4me program launched by the Group in 2013 is a new initiative that helps improve employee work-life balance

In addition to this, the Group introduced a comprehensive employee assistance program called "assistance4me" in 2013. Throughout Germany, this initiative offers employees extensive help with regard to finding childcare and nursing care, as well as home and garden services. At various sites, employees benefit from childcare options that the company subsidizes. A daycare center has been operating at the Darmstadt site in Germany for more than 40 years, financially supported by the Merck family. In 2013, the company invested in expanding the facility, increasing the daycare center staff by 40% in order to provide 50 additional spots. The hours of operation were also extended. The daycare center will be hiring English-speaking staff in order to accommodate the increasingly international workforce at the Group.

Responsibility for our products

Our success and our future are founded on innovative products that address people's needs and enable them to lead a better life. Through our products, we are helping to overcome global challenges such as climate change and access to health. At the same time, we are also helping our customers achieve their own sustainability goals.

Product safety is at the core of the Group's corporate responsibility

The safety of our products is at the core of our corporate responsibility. As long as used properly, our products should pose no danger to customers or the environment, nor should our pharmaceuticals have a negative benefit-risk evaluation. We therefore examine safety across the entire life cycle of our products and continuously take steps to minimize risks. We make our products safer to use by providing patients and customers with extensive informational material so that they can use the products in a responsible, safe and proper manner.

→ *Corporate Responsibility*

Safety of our chemical products

There are numerous regulations intended to ensure that chemicals pose no danger to humans or the environment. Compliance with these regulatory requirements is an important part of our work. With our Group-wide Product Safety Chemicals policy, we have introduced global processes for defining, steering and implementing product safety, and have established the corresponding management structures.

Our policies and regulations incorporate all relevant national and international chemical regulations, including the EU chemicals regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) and the Globally Harmonised System of Classification and Labeling of Chemicals (GHS). We are committed to transparency; for instance, in line with the Global Product Strategy, an international initiative of the chemical industry, we provide our customers with product safety summaries for hazardous materials.

The Group has successfully completed the second phase of REACH implementation. All substances we produce or import in quantities ranging from 100 to 1,000 metric tons per year – around 70 different substances – were fully registered with the European Chemicals Agency (ECHA) by June 1, 2013. The next step, part of the third phase, is for us to register all substances produced or imported in quantities ranging from one to 100 metric tons by 2018. We have already started this process and are right on schedule with our activities.

Safety of our drugs

In everything we do, our number one priority is our patients' safety. Ultimate responsibility for drug safety matters at the Biopharmaceuticals division is borne by our Medical Safety and Ethics Board (MSEB), which is chaired by the Global Chief Medical Officer. The Biopharmaceuticals division's Global Drug Safety is responsible for continuously, systematically monitoring the safety of our drugs (pharmacovigilance). This unit processes safety information from various sources such as clinical trials, adverse reaction reports and scientific literature in order to provide patients with the latest risk-benefit evaluations during the entire life cycle of a drug. Through our Pharma Code for Conducting Pharmaceutical Business and Pharmaceutical Operations, we set standards for responsible marketing activities in order to ensure that patients and professional health care providers have access to relevant information and that patients receive effective treatment.

Quality of our products

Our quality vision: "Quality is embedded in everything we do!"

Our goal is to provide customers and patients with high-quality brand-name products. Through our quality vision – "Quality is embedded in everything we do!" – we remind our employees of their responsibility – across all divisions, all Group functions and all levels of the company.

Sustainable products

We strive to continuously enhance the sustainability footprint of our products and are working to offer our customers products that enable them to reduce the impact of their own activities, as well as to achieve their own sustainability goals. One example of this is the Green^3 concept. Through this program, the Performance Materials division of Merck KGaA, Darmstadt, Germany, is helping to promote environmentally preferable, energy-efficient, safe technologies and materials. We are developing innovative materials for energy-efficient liquid crystal and OLED displays and are thus helping our customers to reduce their own environmental impacts. Thanks to liquid crystals from Merck KGaA, Darmstadt, Germany, displays consume approximately 20% less energy in comparison with the preceding generation of technology.

→ *Corporate Responsibility*

We have expanded the Green[3] concept to include cosmetic products from our Performance Materials division of Merck KGaA, Darmstadt, Germany. We are working to sustainably procure and produce cosmetic ingredients as well as optimize the related production processes. In dialogue with our customers from the cosmetics industry, we also develop proposals for cosmetic formulations that meet strict sustainability criteria as well as address the current trend towards more natural cosmetics. Several of our products have recently been certified by ECOCERT, an independent organization that represents high international standards for environmentally sustainable products.

As part of the Design for Sustainability program, the Life Science Tools division of Merck KGaA, Darmstadt, Germany, has developed a number of tools to drive sustainability across the product development process. One example is a scorecard that identifies key health and environmental impacts in certain life cycle stages as well as opportunities to make improvements. The Design for Sustainability program is especially aimed at reducing our customers' own environmental impact, including their carbon footprint and water use.

In addition to this, the Group fosters its employees' ideas for new businesses through its Innospire program. In view of the globally rising levels of energy consumption as well as the increasing scarcity of water, in 2013 we focused on energy conservation, energy efficiency, and energy conversion, as well as water treatment, water quality analyses, and efficient water consumption. These topics were of particular importance in our Performance Materials and the Life Science Tools divisions. Our employees were called upon to submit suggestions for new materials and systems, as well as for new business models. During the 2013 run of the Innospire program, 300 ideas were submitted, some of which pertained to the above-mentioned topics.

Access to health

The Group strives to improve access to health for underserved populations

Promoting access to health – not only to medicines – for underserved populations across the world is a priority for the company. Our Access to Health (A2H) initiative leverages core competencies across all our divisions to provide comprehensive health solutions to underserved populations and patients in low- and middle-income countries. The Group committed to the UN Millennium Development Goals (MDGs) and to working with partners to achieve them. Our robust approach to addressing the complex challenge of providing access is comprised of four components, known as the 4As for Access: Availability, Affordability, Awareness and Accessibility.

Availability

Availability includes efforts to reduce barriers to health care solutions and to tackle unmet needs in therapeutic areas that disproportionately affect the poor in low- and middle-income countries. The Group is a signatory to the London Declaration on Neglected Tropical Diseases (NTDs), which aims to expand access for the 1.4 billion people affected by NTDs. Within the scope of this unprecedented multi-stakeholder effort, the Group pledged to increase its praziquantel donation tenfold and to develop a pediatric formulation to treat schistosomiasis, a worm disease that often is contracted via contaminated water and is endemic in Africa, Asia and Latin America.

Affordability

The Praziquantel Donation Program is one of the Group's lighthouse projects

Affordability entails offering our products at prices that poor populations can also afford through programs such as innovative pricing, intellectual property initiatives and donations. Through the Praziquantel Donation Program of Merck KGaA, Darmstadt, Germany, which is one of our lighthouse projects, the Group donates Cesol® 600 tablets, which contain the active ingredient praziquantel, to the World Health Organization (WHO) to fight schistosomiasis in Africa. At the end of 2011, the Group pledged to continue its efforts until the

→ *Corporate Responsibility*

disease is eliminated in Africa, contributing up to 250 million tablets annually in the medium term. The WHO partnership has made it possible to treat around 38 million African children. Manufacturing plants in developing countries allow the Group to improve the affordability of their products by selling them in local markets at lower prices.

The Global Pharma Health Fund is an initiative funded by Merck KGaA, Darmstadt, Germany, to help in the fight against counterfeit medicines

Awareness

Awareness focuses on the education of health care professionals, technicians and patients to promote high-quality disease prevention, screening and treatment. Interpol, the world's largest international police organization, estimates that up to 30% of all medicines in developing countries are either counterfeit or of substandard quality. This is especially true in Africa and Asia, since they have little in the way of effective governmental drug inspection centers. The Minilab™ developed by the Global Pharma Health Fund (GPHF), which is exclusively financed by the company, is an important element of our efforts to combat counterfeit medicines and ensures patient safety. The Minilab™ detects counterfeit medicines quickly, easily and inexpensively by using reference samples to test the identity and concentration of 70 active ingredients, ranging from antimalarial drugs and antibiotics to analgesics and antipyretics. To date, the GPHF has supplied 642 Minilabs to more than 80 countries. The Group also collaborates with Interpol and other biopharmaceutical companies to raise awareness about the harmful effects of counterfeit medicines.

Through our three-year Capacity Advancement Program (CAP), the Group is promoting awareness among health workers. In Kenya, we collaborate with the University of Nairobi on the Diabetes Community Awareness and Medical Education Program in a campaign to improve the early diagnosis of diabetes. The campaign has already reached 1,000 people in Kenya, providing patients with free screenings and medical check-ups. We run and sponsor pharmacovigilance training programs in collaboration with local health authorities to ensure that patients get best-quality health solutions, regardless of their location.

Accessibility

To strengthen supply chain and delivery as well as contribute to addressing the so-called "last mile" challenge, we are engaged with various global health stakeholders in discussions around collective and tailored solutions. To raise awareness about thyroid disorders, the Group runs screening programs in Africa, Asia and Latin America. We also use our ThyroMobil® to provide onsite screening and education about iodine deficiency. In Algeria, the Group supports local production through the transfer of manufacturing technology for the production of metformin and bisoprolol. As part of its commitment to improving access to health care for underserved populations, the Group has also constructed the rural pharmacy – an innovative pharmacy specifically designed for rural parts of Africa that will be piloted in Ghana. The pharmacy is a 40-foot shipping container which can be transported to rural communities pre-equipped and with minimal assembly required. Since people living in rural areas often travel great distances to access health care services, the pharmacy will improve accessibility by bringing health solutions directly to them.

The company aims to establish itself as a health partner of choice in low- and middle-income countries and actively support them as they continue to develop.

→ *Corporate Responsibility*

Supplier management

The Group's suppliers must also adhere to environmental, compliance and social responsibility standards

For its business activities the Group needs raw materials, packaging materials, technical products, components, and services. Our basic expectations for suppliers and service providers include their compliance with fundamental environmental and social standards, derived primarily from the Core Labor Standards of the International Labour Organisation and the UN Global Compact. We have also signed the Code of Conduct of the German Association Materials Management, Purchasing and Logistics e.V. (BME), which is intended to combat corruption, violations of antitrust law, and child labor, among other issues.

In 2013, we instituted our Responsible Sourcing Principles, which codify the requirements that we expect our suppliers to meet with regard to environmental, social and compliance standards. We have integrated these principles into our general terms and conditions and, depending on the potential risk, verify compliance with the Responsible Sourcing Principles by subjecting our suppliers to sustainability audits.

Responsibility for the environment

We have set out to reduce our impact on the environment by applying the precautionary approach principle. This especially includes utilizing resources such as energy, water and raw materials both sparingly and efficiently while also reducing our emissions and waste.

Environmental management system

Our Corporate EHS Policy defines our principles and strategies for environment, health and safety. It is implemented through internal guidelines and instruction manuals on compliant behavior, such as the Group EHS Security and Quality Manual. At all sites, the local EHS managers are also in charge of operational environmental protection measures. These employees continually receive training and obtain additional qualifications.

In 2013, the Group invested a total of € 142 million in environmental protection, health and safety measures

Since our businesses are constantly changing, our environmental management system must also remain flexible and adaptable. For this reason, we have internal and external audits conducted on a regular basis to determine whether the ISO 14001 requirements are still being met. In 2013, Merck KGaA, Darmstadt, Germany, received the ISO 14001 group certificate for our environmental management system for the fifth consecutive year.

Expenditure on environmental protection, health and safety totaled € 142 million in 2013, which also includes investments made during 2013.

Climate protection

Climate change and its consequences are one of the main challenges facing society in the 21st century. Being a responsible company, it is especially important to us to do our part, which is why we have set ourselves the goal of reducing total direct and indirect greenhouse gas emissions by 20% by 2020, measured against the 2006 baseline.

In 2013, the Group reduced its greenhouse gas emissions by around 1% relative to the 2006 baseline

In order to achieve this goal, the Group has launched a climate protection program called EDISON that consolidates all climate change mitigation and energy efficiency activities of the Group. In 2014, as in 2012 and 2013, the Executive Board will additionally earmark around € 10 million for measures to conserve energy and reduce greenhouse gas emissions. We intend to use this sum to initiate another 130 individual projects

→ *Corporate Responsibility*

as well as to continue projects from 2012 and 2013. Through the 200 EDISON projects that were launched in these two years, the company aims to annually save around 63 metric kilotons of CO_2 in the medium term. In 2013, Merck KGaA, Darmstadt, Germany, lowered its greenhouse gas emissions by around 1% relative to the 2006 baseline.

Around two thirds of the projects planned Group-wide have already been or are being rolled out, including also major energy generation projects. In Jaffrey, New Hampshire (USA), as well as in Goa, India, the Group is currently constructing power plants that will use carbon-neutral biomass as fuel in order to supply the sites with electricity. Another EDISON project is the gas-fired cogeneration unit at our site in Gernsheim, Germany, which went on line in mid-2013. It uses a high-efficiency gas turbine-driven cogeneration system to produce electricity, while almost completely preventing the loss of unused heat. This will cut down the Group's carbon footprint by around 6,000 metric tons of carbon dioxide per year.

Energy consumption (in GWh)

	2009	2010	2011	2012	2013
Total energy consumption	**1,275**	**1,395**	**1,391**	**1,388**	**1,431**
Direct energy consumption	823	905	906	920	968
Natural gas	742	794	798	818	864
Liquid fossil fuels	66	96	95	89	89
Biomass and other self-generated renewable energy	15	15	13	13	15
Indirect energy consumption	452	490	485	468	463
Electricity	443	480	481	464	458
Water vapor	9	10	4	4	5

Portfolio-adjusted in accordance with the Greenhouse Gas Protocol

CO_2eq emissions (eq=equivalents)

Emissions in kilotons	2009	2010	2011	2012	2013
Total CO_2eq emissions	**474**	**537**	**502**	**502**	**524**
Direct CO_2eq emissions	299	348	315	317	343
Indirect CO_2eq emissions	175	189	187	185	181

Portfolio-adjusted in accordance with the Greenhouse Gas Protocol

Focus areas: Energy efficiency, greenhouse gas emissions, water scarcity

Energy management plays a key role in our efforts for sustainable energy efficiency and climate change mitigation. The Group's production sites in Darmstadt and Gernsheim account for around 40% of the Group's global energy consumption. In 2012, both of these sites qualified for ISO 50001 – Energy Management System certificates, which were reaffirmed in 2013. Our Taoyuan site in Taiwan received the ISO 50001 certificate in 2013 for the first time. Counting the Bari and Tiburtina sites in Italy, this makes five production sites of Merck KGaA, Darmstadt, Germany, that have a certified energy management system.

→ *Corporate Responsibility*

With its new company car policy, the Group intends to reduce its CO_2 emissions by 30% by 2020

We utilize company cars sparingly and ensure that they are energy efficient, which also contributes to climate change mitigation and cuts down costs. In 2013, the Group therefore revised its company car policy and defined specific goals. By 2020, we want to decrease the Group-wide CO_2 emissions of our car fleet by 30% relative to the 2012 baseline. Consequently, the Group will be requiring its company cars to be low-emission, state-of-the-art vehicles that provide good fuel economy.

The Climate Performance Leadership Index and the Climate Disclosure Leadership Index of the Climate Disclosure Project (CDP), an independent non-profit organization, both indicate that we are on the right track. In 2013, we were once more ranked in performance band B, which puts us clearly in the upper range of all participating companies in the Germany, Austria and Switzerland category. The company again significantly improved its disclosure score, raising it to 92 out of 100 possible points, thus meeting the requirements for the CDP's top quality rating. Around 350 companies are rated on their performance in emissions reductions and climate change reporting. The CDP publishes these two indices in order to make greenhouse gas emissions reporting more transparent.

In addition to energy, in 2013 the company also focused its attention on the topic of water. We have examined our sites to determine which ones are located in regions where water is scarce and thus an especially precious commodity, and plan to establish sustainable water management programs particularly at these sites. Furthermore, we participated in the CDP's water program in 2013 for the first time.

Research and Development at the Group

Merck KGaA, Darmstadt, Germany, conducts research and development worldwide in order to develop new products and services designed to improve the quality of life of patients and customers. In 2013, we focused on further optimizing the relevance and profitability of our research and development activities and we increased the number of new collaborations with external research and development partners.

Nearly 4,000 employees around the world work for our company researching innovations to serve long-term health and technology trends in established and emerging markets as well as in developing countries.

Overall, the Group invested around € 1.5 billion in research and development in 2013. In addition, we are focusing on a newly defined mix of in-house research and cost-saving collaborations, which enables us to increase the productivity of our research while simultaneously reducing financial outlay.

The organizational set-up of our research and development activities reflects the divisional structure of the Group. Within the Executive Board, Stefan Oschmann is responsible for the Biopharmaceuticals division and Consumer Health divisions of Merck KGaA, Darmstadt, Germany, and Bernd Reckmann is responsible for the Performance Materials and Life Science Tools divisions of Merck KGaA, Darmstadt, Germany.

Biopharmaceuticals

General

Number of employees in R&D: 2,523

R&D spending in 2013: € 1,182.8 million

Guiding principle is to foster an R&D environment from bench to bedside

In 2013, R&D at the Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, evolved significantly. Starting in 2013 as separate functions – Global Research and Early Development, and Global Development and Medical – the Biopharmaceuticals division unified the two groups into one global R&D organization.

The guiding principle of the new organization at the Biopharmaceuticals division is to foster an environment of end-to-end research and development – from bench to bedside – with a resolute commitment to ensuring that the needs of the patient are the primary driver of the Biopharmaceuticals division's efforts. Operationally, there is a strong focus on delivering the highest-quality science to clinical development with speed and efficiency, and translating that science into meaningful, differentiated new therapies for patients in need.

Discovery is structured across three distinct yet closely aligned Translational Innovation Platforms (TIPs): Oncology, Immuno-Oncology, and Immunology/Neurodegenerative Diseases. Each TIP integrates research, the early phases of development and biomarker strategies, and is now accountable for delivering promising discovery programs into development up to clinical proof of confidence. In order to achieve this, in-house teams of researchers and clinicians work closely together, while collaborating with leading academic institutes, research laboratories and industry organizations to complement their internal capabilities.

The Biopharmaceuticals division is implementing an open collaborative model in R&D and reflecting this, numerous collaborations were entered into during 2013. These included an innovative strategic collaboration with Quintiles creating a comprehensive process that integrates the expertise and experience from both organizations into a single, well-aligned clinical development unit. Several agreements were also signed with external partners in both research and development.

Across the continuum of R&D, the Biopharmaceuticals division is promoting a solution-oriented, collaborative and accountable culture that delivers value to the business and to patients. The Biopharmaceuticals division R&D organization is boosting its efforts to advance a robust pipeline and achieve its launch ambitions.

→ *Research and Development at the Group*

Research & Development strategy

In 2013, the Biopharmaceuticals division's R&D made considerable progress in simplifying its global operations structure. Today, a nimble and highly-experienced team of just over 2,500 R&D professionals is working towards adding value and bringing new therapeutic options to patients around the world.

With hubs in Darmstadt, Germany; Boston, Massachusetts (USA); Tokyo, Japan; and Beijing, China, the broad footprint of the Biopharmaceuticals division gives it access to innovation in its key markets. Across the spectrum of the biopharma ecosystem – from academia, to hospitals, to research institutions, and to other companies in the biopharmaceutical industry – the Biopharmaceuticals division complements its internal expertise by leveraging the experience and knowledge of others. In 2013, the Biopharmaceuticals division delivered clear examples of this strategic priority, announcing agreements with several companies and academic institutions around the world (for details see the pipeline on page 70).

Merck KGaA, Darmstadt, Germany, and Quintiles form partnership

In April 2013, the Biopharmaceuticals division and Quintiles, the world's largest provider of biopharmaceutical development and commercial outsourcing services, announced a new, five-year clinical development agreement. This strategic collaboration is the first of its kind between a biopharmaceutical company and a biopharmaceutical services provider, integrating the expertise and experience of both organizations. This novel approach to clinical development is founded on a shared commitment to cost-disciplined science. The collaboration is intended to optimize productivity in the design and execution of clinical studies with a focus on quality, speed and efficiency. Under the agreement, the Biopharmaceuticals division is shaping and leading the strategy of its clinical development programs, with Quintiles directing clinical trial planning, design and execution, using highly efficient processes and proven technologies.

New building in Darmstadt for biopharmaceutical research and development

In the course of 2013, the Biopharmaceuticals division further strengthened its global presence. In Darmstadt, the division officially opened a biopharmaceutical R&D building. In Boston, the division's R&D site was renamed the EMD Serono Research and Development Institute, and will accommodate more than 500 employees in the coming years across the full R&D spectrum. The Biopharmaceuticals division continues to build on its 80-year history in China and sees excellent opportunities to further strengthen its reputation as a partner in biopharma, a leader in R&D, and an employer of choice for top talent in this market. The division's hub in Tokyo serves as a gateway to northeast Asia, allowing the delivery of scientific and medical innovation of its pipeline to patients with diseases that are of particular concern to this region.

World-class physicians and scientists have joined the Biopharmaceuticals division leadership team

The Biopharmaceuticals division strengthened its leadership team by appointing world-class physicians, scientists and health care professionals to senior positions, including the Global Chief Medical Officer, and the Head of Global Clinical Development, both of whom joined the organization in January 2014.

To further advance the field of medicine the Group sponsors research and advanced medical education globally, reflecting our commitment to science, education and patient care. For example, the Biopharmaceuticals division supports outstanding extramural research projects through its Grant for Fertility Innovation and its Grant for Multiple Sclerosis Innovation, which are both awarded annually and available to researchers and clinicians worldwide. Similar annual Grants for Innovation were launched in 2013 in Oncology and Growth Disorders and the first awards in these fields will be granted in 2014. Through contributions to multiple medical education providers, the Biopharmaceuticals division supports the development and delivery of independent advanced medical training for scientists, physicians, nurses, pharmacists, and other health care professionals. In 2013, the Biopharmaceuticals division invested more than € 13 million in independent medical education programs and in grants for innovation.

→ *Research and Development at the Group*

Overall, the global Biopharmaceuticals division R&D organization is now well-positioned, with enhanced operational effectiveness, an unwavering commitment to exceptional science, and a focus on delivering a pipeline that will continuously bring innovation to the business and to patients.

The Biopharmaceuticals division pipeline in 2013

R&D focus: oncology, immuno-oncology, immunology and neurology

The Biopharmaceuticals division's core R&D fields include oncology, immuno-oncology, immunology and neurology. The development pipeline continues to be weighted towards oncology, however 2013 also saw important scientific and business development advances in other areas. The Biopharmaceuticals division has an open collaborative model in R&D and in reflection of this a number of collaborations were entered into during 2013, some of which are highlighted below.

In December 2013 the European Commission approved an amendment to the Erbitux® (cetuximab) product information, updating the indication for Erbitux® to the treatment of patients with RAS wild-type metastatic colorectal cancer (mCRC). The European Commission approval is based on the totality of data emerging on the role of mCRC RAS tumor status in the benefit–risk profile of anti-EGFR monoclonal antibodies. The approval primarily refers to new biomarker data from the OPUS (OxaliPlatin and cetUximab in first-line treatment of mCRC) study. OPUS is a randomized, controlled, Phase II trial, involving 337 mCRC patients, 179 with KRAS wild-type (exon 2) tumors, demonstrating the efficacy of Erbitux® plus FOLFOX-4 (oxaliplatin-based therapy) versus FOLFOX-4 alone. Results of a RAS tumor status analysis were presented at the Gastrointestinal Cancers Symposium (American Society of Clinical Oncology – GI meeting) in January 2014, in San Francisco. Recent analyses of multiple studies evaluating monoclonal anti-epidermal growth factor receptor (EGFR) antibodies, such as Erbitux®, examined KRAS wild-type tumor status (exon 2) for additional RAS mutations (defined as mutations in exons 3 or 4 of KRAS and/or exons 2, 3 or 4 of NRAS). The results from these studies suggest that patients with RAS wild-type tumors may benefit from treatment with Erbitux®, while patients with RAS mutant tumors may not. The Summary of Product Characteristics of Erbitux® has therefore now been updated as part of the European Commission approval.

FIRE-3 study compared Erbitux® and bevacizumab

Initial results of the independently run FIRE-3 study, a randomized, controlled, head-to-head Phase III trial comparing Erbitux® and bevacizumab on top of standard chemotherapy (FOLFIRI) in patients with KRAS wildtype metastatic colorectal cancer (mCRC), were presented at the American Society of Clinical Oncology (ASCO) meeting in 2013 by the German cooperative investigator group AIO. The study did not achieve the primary endpoint as the objective response rate (ORR) was not significantly different for the two treatment arms: 62% for Erbitux® combination versus 58% for bevacizumab combination. However, investigators reported the median overall survival based on a 57% event rate was 28.7 months for the Erbitux® plus FOLFIRI group versus 25.0 months for the bevacizumab plus FOLFIRI group. The toxicity profiles in the two groups were manageable and as expected from previous studies.

→ *Research and Development at the Group*

Phase II proof-of-concept studies demonstrate the clinical efficacy of Sym004

Also at the 2013 ASCO meeting, data were presented from two proof-of-concept Phase II trials, evaluating the safety and efficacy of Sym004, an early-stage development opportunity inlicensed from Symphogen, a private Danish biopharmaceutical company developing recombinant antibody mixtures. Sym004 is a mixture of two chimeric monoclonal antibodies (mAbs) against different parts of the Epidermal Growth Factor Receptor (EGFR). Both mAbs bind EGFR with high affinity but have only limited preclinical activity individually. Synergistic inhibition has however been demonstrated by the Sym004 mixture both in vitro and in vivo. Results from a Phase II study in metastatic colorectal cancer showed clinical activity in anti-EGFR treatment-refractory KRAS wild-type mCRC patients, warranting further development. No unexpected adverse events were observed. In a Phase II study in squamous cell cancer of the head and neck (SCCHN), Sym004 demonstrated clinical activity in heavily pretreated patients with advanced SCCHN previously progressing on, or after therapy with already available anti-EGFR mAbs. No unexpected toxicities were reported.

TH-302 is currently being tested in two Phase III trials under an SPA

Turning to TH-302, an investigational hypoxia-targeted drug, the global Phase III MAESTRO study was launched in late 2013, to assess its efficacy and safety in combination with gemcitabine, in patients with previously untreated, locally advanced unresectable or metastatic pancreatic adenocarcinoma. This followed a positive Phase II study in this indication which was reported at the American Association for Cancer Research (AACR) meeting in 2012. MAESTRO is a randomized, placebo-controlled, international, multi-center, double-blind Phase III trial of TH-302 plus gemcitabine compared with placebo plus gemcitabine and is targeted to enroll 660 patients. The primary efficacy endpoint is overall survival and secondary endpoints include progression-free survival (PFS), overall response rate and disease control rate, as well as assessments of safety and tolerability, pharmacokinetics and biomarkers. The study is being conducted under a Special Protocol Assessment (SPA) with the U.S. Food and Drug Administration (FDA). An SPA is a review conducted by FDA on a clinical trial that will form the primary basis of an efficacy claim in a marketing application. MAESTRO is the second Phase III study of TH-302 since there is already an ongoing study in soft tissue sarcoma patients assessing the efficacy and safety of TH-302 in combination with doxorubicin. This trial is targeted to enroll 620 patients in order to investigate the effect in overall survival for patients being treated with the combination. This trial is being conducted by Threshold Inc. also under an SPA with the U.S. FDA.

In the first quarter of 2013 Merck KGaA, Darmstadt, Germany, announced that its Phase III CENTRIC study of the investigational integrin inhibitor cilengitide given in combination with standard chemoradiotherapy for patients with newly diagnosed glioblastoma (brain tumors) and methylated MGMT gene promoter status, did not reach its primary endpoint of significantly increasing overall survival. The trial was conducted in partnership with the European Organisation for Research and Treatment of Cancer (EORTC), and its results were presented at the ASCO meeting in June 2013. In view of the results of this study, the company decided to discontinue the overall development program for cilengitide.

→ *Research and Development at the Group*

START2 is investigating the efficacy, safety and tolerability of tecemotide

Tecemotide, a MUC1 antigen-specific cancer immunotherapy (formerly referred to as Stimuvax and L-BLP25) is being investigated in patients with inoperable locally advanced non-small-cell lung cancer (NSCLC). In September, the Group announced its decision to proceed with a new Phase III study: START2 which is planned to include around 1,000 patients. This was based on the results of the Phase III START study, which were also presented at the ASCO 2013 annual meeting, as well as on consultation with certain regulatory authorities. While the primary endpoint of the START study was not met, a post-hoc analysis of a large predefined subgroup of patients from the study (consisting of 853 patients), who had received initial concurrent chemoradiotherapy (CRT) followed by tecemotide, demonstrated longer overall survival compared to those who had received concurrent CRT plus placebo (30.8 months, versus 20.6 months; p=0.016). START2 is a randomized, double-blind, placebo-controlled multicenter Phase III trial designed to assess the efficacy, safety and tolerability of tecemotide in patients with unresectable, locally advanced NSCLC who showed response or stable disease after at least two cycles of platinum-based concurrent CRT. Concurrent CRT is the current standard of care for these patients. The primary endpoint of START2 is overall survival. The Group received scientific advice from the European Medicines Agency (EMA) on the program, and reached an agreement with the U.S. FDA on an SPA for this study.

Phase I trial on pimasertib in combination with hDM2 inhibitor started

Also during the ASCO 2013 meeting in June 2013 data were presented from two pimasertib trials. Results from a Phase I trial in combination with Sanofi's dual PI3K/mTOR inhibitor (SAR245409) in advanced solid tumors showed that continuous daily dosing of pimasertib and SAR245409 is tolerated and has shown signs of activity. In addition, results from the ongoing study of pimasertib in combination with gemcitabine in patients with pancreatic cancer showed activity at a dose of 60 mg twice per day, and this is now being investigated further in this indication. In the fourth quarter of 2013 an additional Phase I trial was initiated of pimasertib in combination with Sanofi's hDM2 inhibitor (SAR405838) in patients with solid tumors.

In June the Biopharmaceuticals division announced its commitment to the field of cancer immunotherapy by creating a fully dedicated immuno-oncology translational innovation platform (or TIP) integrating research, early development and biomarker strategies. In addition to the division's existing oncology platform, this new immuno-oncology platform is focusing on developing therapies that leverage the immune system's natural ability to fight tumors, and work in combination with existing and future therapies in the following areas:

Fully dedicated immuno-oncology translational innovation platform created

- → Therapeutic cancer vaccines: targeting tumor antigens to elicit a tumor-specific immune response
- → Cancer stem cells: targeting cancer stem cells to prevent or reduce tumor formation and inhibit metastases
- → Immunotolerance: eliminating or circumventing inhibitory mechanisms in the immune system that prevent cancer cells from being recognized and attacked by the body

→ *Research and Development at the Group*

To ensure a broad immuno-oncology research and early development platform, an in-house team of researchers and clinicians has been assembled to build a portfolio of investigational immunotherapies, while collaborating with leading academic, research and industry organizations to complement internal capabilities. The current immuno-oncology portfolio comprises a robust pipeline of preclinical molecules as well as several therapeutic candidates in early clinical development (Phase I) in solid tumors, including:

Team of internal researchers and external clinicians building a portfolio of investigational immunotherapies

- → Anti-PD-L1, a monoclonal antibody targeting PD-L1 (programmed cell death ligand) expressed by various tumors
- → NHS-IL12, a cancer immunotherapy targeting IL-12 to the necrotic regions of tumors, sponsored by the U.S. National Cancer Institute (NCI)
- → NHS-IL2, targeting IL-2 to the necrotic regions of tumors

The Group's approach is to develop immunotherapies that can be combined with other therapeutic modalities, bearing in mind that attacking multiple cancer targets simultaneously increases the possibility of therapeutic success.

Several collaborations between the Group and other organizations were announced in the field of oncology throughout 2013. These included:

- → A collaboration to run innovative projects in oncology under the roof of an innovation center operated by BioMed X GmbH on the campus of the University of Heidelberg. The objective is to seed and boost early stage research projects in the field of oncology. This new research lab will establish a new way of fostering innovation, a concept that has been co-developed by the Biopharmaceuticals division and BioMed X. It will allow the Biopharmaceuticals division to run research projects with interdisciplinary project teams of young talented scientists recruited worldwide and coached by a supervisor from the division, in the vibrant environment of an open-innovation lab facility.
- → Selvita, a biotechnology company based in Krakow, Poland, in the field of joint discovery and lead optimization for small-molecule-based drugs targeting proteins involved in cancer cell metabolism. The partners plan to target key metabolic pathways involved in sustaining growth and the proliferation of cancer cells with the aim of delivering potential first-in-class candidate drugs for multiple oncology indications.

→ *Research and Development at the Group*

→ BeiGene Co., Ltd., a biotech research and development company based in China. In 2013, the Group entered into two agreements with this company to co-develop, and commercialize two molecules for the treatment of cancer: BeiGene-283, a second-generation BRAF inhibitor that is currently in preclinical development. BRAF is a protein that is a downstream component of the MAPK (mitogen-activated protein kinase) signaling pathway, which is thought to promote cancer cell growth, and that is dysregulated in a number of human cancers. BeiGene-290, a potent poly (ADP-ribose) polymerase (PARP) inhibitor which is currently in preclinical development. PARP inhibitors target an enzyme family which is involved in a number of cellular processes, including DNA repair and programmed cell death.

→ Spanish National Cancer Research Centre (CNIO) in the area of cancer drug development. The agreement builds upon CNIO's research discoveries to encourage the development and commercialization of new compounds. As part of the agreement the Group has been granted exclusive rights to develop and commercialize CNIO's new inhibitors of the ataxia telangiectasia and Rad3-related (ATR) kinase. This enzyme has an important role in the response to DNA damage and in facilitating cell survival. Due to the fact that tumor cells accumulate more DNA damage than healthy cells, blocking ATR kinase activity with selective inhibitors is a strategy worth investigating further for specific tumor types.

The Biopharmaceuticals division is moving ahead to develop a Biosimilars portfolio

The division is moving ahead with the development of a portfolio of biosimilar compounds applicable to various disease areas including oncology and rheumatology.

Turning to the multiple sclerosis (MS) field, ONO-4641 (ceralifimod), a sphingosine-1-phosphate receptor modulator, showed positive results in the Phase II DreaMS study in patients with relapsing MS, and these were presented at the American Academy of Neurology (AAN) annual meeting in 2012. In 2013 further studies, both non-clinical and clinical, were performed and provided more information on efficacy, safety and the potential for differentiation of this agent, including 12-month results from an ongoing blind DreaMS extension study presented at the 29th annual meeting of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) in October. The Biopharmaceuticals division is in discussions with certain regulatory authorities concerning potential Phase III study designs. The final decision about the future of the Phase III program will be made in the second quarter of 2014.

Plovamer acetate enters Phase II trials

One project in the MS field advanced into Phase II in the fourth quarter of 2013, namely plovamer acetate, a second-generation peptide copolymer immunomodulator. This study is targeted to include 550 patients with relapsing-remitting multiple sclerosis (RRMS) in over 120 centers internationally. In addition an immune-tolerizing agent known as ATX-MS-1467, which is intended to reduce an inappropriate immune response against certain components of the patient's own nervous tissue, completed Phase I testing and is being prepared for a proof of principle Phase IIa study in patients with RRMS. This is scheduled to start in the first half of 2014.

→ *Research and Development at the Group*

The Group receives license option from Opexa Therapeutics

Early in 2013 Merck KGaA, Darmstadt, Germany, announced that it had been granted an option by Opexa Therapeutics, Inc. for the development and commercialization of Tcelna™ (imilecleucel-T), as a potential first-in-class therapy for patients suffering from MS. Tcelna™ is being developed by Opexa and currently is in a Phase IIb clinical trial in patients with secondary progressive MS (SPMS). It is being developed as a personalized therapy specifically tailored to each patient's individual disease profile and has been evaluated in Phase I and II clinical studies in MS. Tcelna™ has received Fast Track Designation from the U.S. FDA as a potential treatment for SPMS.

In the fourth quarter of 2013 the Biopharmaceuticals division signed a memorandum of understanding with the Israel biotech company Kadimastem, which develops human pluripotent stem cell-related products. The aim is to utilize the screening platform of Kadimastem to characterize new compounds which could act as remyelinating agents in MS; as well as to possibly extend the collaboration into related fields like amyotrophic lateral sclerosis (a form of motor neuron disease).

In Immunology, the Group is focusing on the development of sprifermin

In the field of Immunology, the Group decided to focus the development of its investigational drug sprifermin (recombinant human FGF-18) on the osteoarthritis (OA) indication and to embark on a new multinational Phase IIb study known as FORWARD in patients with OA of the knee. This is being performed as part of a strategic alliance on sprifermin that the company entered into in early 2013 with Nordic Bioscience Clinical Development A/S of Denmark. Sprifermin is a protein thought to stimulate cells known as chondrocytes to synthesize cartilage matrix and to renew themselves. The alliance draws on the joint expertise and resources of Merck KGaA, Darmstadt, Germany, and Nordic Bioscience which will provide clinical development services to the Group on a shared-risk basis. The Group retains full responsibility for the development and commercialization of sprifermin. The FORWARD study further evaluates sprifermin for inhibition of the progression of structural damage, reduction of pain and improvement of physical function in patients with OA of the knee. This study was initiated in the third quarter of 2013 and is planned to include over 500 patients.

New Phase II trial for atacicept started

The Group is currently investigating atacicept (anti-Blys/anti-APRIL fusion protein) for the treatment of systemic lupus erythematosus (SLE). Clinical and biomarker results from the APRIL SLE Phase II study of atacicept were presented at the Annual Meeting of the European League Against Rheumatism (EULAR) in June 2013. APRIL SLE was a double-blind, placebo-controlled study assessing the therapeutic value of atacicept in SLE. While no statistically significant difference was observed in the number of patients experiencing a disease flare between atacicept 75 mg and placebo during the 52 week treatment period (primary endpoint), post hoc analyses suggested that treatment with the 150-mg dose of atacicept was associated with a reduced number of patients experiencing SLE flares versus placebo (36.6% versus 54.1%). Based on the totality of data from the APRIL SLE study the company decided to proceed to a new Phase II study: ADDRESS II. This is a double-blind, placebo-controlled study to further assess the efficacy and safety of atacicept at two doses (75 mg and 150 mg given subcutaneously once per week) in reducing SLE disease activity in patients receiving standard-of-care therapy. The primary endpoint of the study will investigate the effect of atacicept in reducing disease activity.

→ *Research and Development at the Group*

In early 2013 Merck KGaA, Darmstadt, Germany, and the Feinstein Institute for Medical Research, the research division of the North Shore-Long Island Jewish Health System in New York, announced that they will collaborate to develop antibodies as potential treatments of SLE. This collaboration allows the Biopharmaceuticals division to further strengthen its research in SLE with the intention of developing new treatments for this disease.

In March, the Biopharmaceuticals division announced the creation of Calypso Biotech in Geneva, Switzerland, a spin-off company resulting from its Entrepreneur Partnership Program (EPP) which was launched in April 2012. Formed around an R&D portfolio in the field of inflammatory bowel diseases, Calypso will target selected niche indications with high unmet medical needs.

FDA granted approval for Gonal-f® RFF Redi-ject™

The Biopharmaceuticals division has a strong legacy in fertility and continues to pioneer innovative science that advances its goal of improving pregnancy outcomes and "take home baby rates". Gonal-f® (recombinant follitropin alfa for injection) is prescribed to supplement or replace naturally occurring follicle-stimulating hormone (FSH), an essential hormone widely used to treat infertility. In the fourth quarter the Biopharmaceuticals division announced that the U.S. FDA granted approval for Gonal-f® RFF Redi-ject™ (follitropin alfa injection), a disposable pre-filled injection device intended for the subcutaneous injection of a liquid formulation of Gonal-f® RFF (Revised Formulation Female). This pen is part of a global product franchise of ready-to-use pens with demonstrated dose accuracy designed for patient self-administration of the Group's fertility hormones (gonadotropins). The Biopharmaceuticals division is continuously innovating to improve its injection devices in order to meet the needs of patients and health care professionals alike.

Fertility research remains an important R&D focus

Fertility research continues to be an important focus of R&D innovation. In December 2013 the Biopharmaceuticals division announced the creation of TocopheRx, a Boston-based spin-off company resulting from its EPP, and is seed financed by MS Ventures. TocopheRx, the eighth spin-off in the EPP will focus on an oral follicle-stimulating hormone (FSH) agonist for treatment of infertility, a promising early asset that could help couples seeking solutions for fertility problems. An oral FSH agonist would have obvious advantages to the patient since injections of this hormone would be avoided. TocopheRx will advance the Biopharmaceuticals division's preclinical program towards clinical testing, bringing forward an innovative investigational asset of the Biopharmaceuticals division through externalization in a capital-efficient manner. This project demonstrates the company's continued commitment to developing the next-generation of infertility treatments and required technologies to improve the success rate of in vitro fertilization procedures as well as patient convenience.

Grant for Fertility Innovation award promotes translational fertility research projects

The Group announced its strong support for the Grant for Fertility Innovation (GFI) award with grants totaling up to € 4 million for the years 2013/2014. The announcement was made during the 29th annual meeting of the European Society of Human Reproduction and Embryology (ESHRE). 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 (ART). In the last five years, more than 600 applications were received from over 50 countries around the world, and 26 projects from 16 countries were awarded grants totaling € 6 million. The Biopharmaceuticals division has recently launched similar Grants for Innovation in the fields of multiple sclerosis, oncology and growth disorders. The first four awards of the Grant for Multiple Sclerosis Innovation (GMSI) were presented on the occasion of the 29th annual meeting of ECTRIMS in Copenhagen in October 2013.

→ *Research and Development at the Group*

The Biopharmaceuticals division entered into several collaborations relevant across all of its core R&D fields of Oncology, Immuno-oncology, Immunology and Neurology, as follows:

→ The Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, and Ablynx announced in the third quarter of 2013 that they have further expanded their relationship through a research alliance that could lead to several co-discovery and co-development collaborations. The Biopharmaceuticals division will fund a dedicated discovery group at Ablynx to develop Nanobodies® against a number of targets of interest to the Biopharmaceuticals division.

→ Merck KGaA, Darmstadt, Germany, and Open Monoclonal Technology, Inc., a leader in the genetic engineering of animals for the development of human therapeutic antibodies, announced the expansion of the collaboration agreement they entered into in 2012. The Biopharmaceuticals division will now have unlimited access to the OmniRat™ technology platform.

→ The Biopharmaceuticals division announced a five-year strategic partnership broadening its collaboration with the Lead Discovery Center GmbH (LDC), Dortmund, Germany, a renowned translational research organization. The new agreement integrates the expertise and resources of both organizations to expedite the discovery and development of therapeutic candidates in diseases with high unmet medical needs in areas of interest to the Biopharmaceuticals division. The first project under the new agreement is in immunology and emerged from an ongoing collaboration of LDC with the Max-Planck researcher and Nobel Laureate Professor Robert Huber.

Israel Bioincubator further expanded in 2013

The Biopharmaceuticals division's Israel Bioincubator continued to develop in 2013. The Bioincubator is financed by the € 10 million Merck Ventures BV, Amsterdam, The Netherlands, a subsidiary of Merck KGaA, Darmstadt, Germany, Israel Bioincubator and is focused on preseed and seed opportunities originating in Israel. In addition to housing Neviah Genomics, the following two companies joined in late 2013: Metabomed, which focuses on research in the field of cancer metabolism and computational biology; and ChanBio, which focuses on the discovery of antibodies selective for ion channels, considered to be potential therapeutic targets for the treatment of MS.

New easypod® system introduced to the European market

In the field of growth disorders, an updated version of the easypod® system for use in European markets was presented in September 2013 on the occasion of the 9th Joint Meeting of Paediatric Endocrinology organized by the European Society for Paediatric Endocrinology (ESPE). The easypod® system is an electronic, fully automated recombinant human growth hormone injection device that provides accurate data on treatment adherence. The new easypod® system provides information to help physicians address the issues of poor patient compliance and low adherence rates that are often associated with growth hormone (GH) therapy.

→ *Research and Development at the Group*

Biopharmaceuticals pipeline, as of December 31, 2013

Therapeutic area	Compound	Indication	Status
Neurodegenerative diseases	ONO-4641 (ceralifimod, oral S1P receptor modulator)	Multiple sclerosis	Phase II
	Plovamer acetate (PI-2301, second-generation peptide copolymer)	Multiple sclerosis	Phase II
	ATX-MS-1467 (immune-tolerizing agent)	Multiple sclerosis	Phase I
Oncology	Erbitux® (cetuximab, anti-EGFR mAb)	Head and neck cancer	Filed in China
	TH-302 (hypoxia-targeted drug)	Soft tissue sarcoma	Phase III
	TH-302 (hypoxia-targeted drug)	Pancreatic cancer	Phase III
	TH-302 (hypoxia-targeted drug)	Hematological malignancies and solid tumors	Phase I
	DI17E6 (Anti-integrin mAb)	Colorectal cancer	Phase II
	DI17E6 (Anti-integrin mAb)	Castration-resistant prostate cancer	Phase II
	Pimasertib (MEK inhibitor)/gemcitabine combination	Pancreatic cancer	Phase II
	Pimasertib (MEK inhibitor)	Malignant melanoma	Phase II
	Pimasertib/PI3K inhibitor novel combination	Low grade ovarian cancer	Phase II [1]
	Pimasertib/PI3K inhibitor novel combination	Solid tumors	Phase I [1]
	Pimasertib/hDM2 inhibitor combination	Solid tumors	Phase I [2]
	C-Met kinase inhibitor	Solid tumors	Phase I
	Sym004 (anti-EGRF mAb mixture)	Head and neck cancer	Phase II
	Sym004 (anti-EGRF mAb mixture)	Solid tumors	Phase I
	P7056K and Akt inhibitor	Solid tumors	Phase I
Immuno-Oncology	NHS-IL2 (cancer immunotherapy)	Solid tumors	Phase I
	NHS-IL12 (cancer immunotherapy)	Solid tumors	Phase I [3]
	Anti-PD-L1 mAb	Solid tumors	Phase I
	Tecemotide (L-BLP25, MUC1-antigen-specific cancer immunotherapy)	Non-small cell lung cancer	Phase III [4]
Immunology	Atacicept (anti-Blys/anti-APRIL fusion protein)	Systemic lupus erythematosus	Phase II [5]
	Sprifermin (FGF-18)	Osteoarthritis	Phase II [6]
Endocrinology	Kuvan® (sapropterin dihydrochloride)	PKU in pediatric patients < 4 years	Phase III [7]

[1] Combined with PI3K/mTOR inhibitor (SAR245409) from Sanofi, conducted under the responsibility of Merck KGaA, Darmstadt, Germany
[2] Combined with hDM2 inhibitor (SAR405838) from Sanofi, conducted under the responsibility of Sanofi
[3] Sponsored by the National Cancer Institute (USA)
[4] START2 study in preparation, INSPIRE study ongoing
[5] ADDRESS II study in preparation
[6] FORWARD study
[7] Post-approval request by the European Medicines Agency

More information on the ongoing clinical trials can be found at www.clinicaltrials.gov

S1P: Sphingosine-1-phosphate
MEK: Mitogen-activated protein kinase
PI3K: Phosphoinositide 3-kinase
hDM2: Human double minute 2 oncogene
C-Met: Mesenchymal-epithelial transition proto-oncogene
EGFR: Epidermal growth factor receptor
Akt: Protein kinase B
PD-L1: Programmed cell death ligand
PKU: Phenylketonuria
MUC1: Mucin 1
Blys: B-lymphocyte stimulator
APRIL: A B cell proliferation-inducing ligand
FGF: Fibroblast growth factor

→ *Research and Development at the Group*

Consumer Health

Number of employees in R&D: 105

R&D spending in 2013: € 17.1 million

In its Consumer Health division, Merck KGaA, Darmstadt, Germany, markets over-the-counter medicines and food supplements in Europe – primarily for France, Germany, and the United Kingdom – as well as in Emerging Markets, where sales volumes are rising.

Consumer Health research and development activities focus on constantly improving tried and proven formulations consistent with the needs of consumers. At the same time, the division is further developing its established brand-name products by making them simpler to use and by offering accompanying services. Consumer Health products include Bion®3, Nasivin®, Femibion®, Seven Seas®, Sangobion®, Cebion®, Sedalmex® and Kytta®.

Performance Materials

Number of employees in R&D: 429

R&D spending in 2013: € 143.0 million

Merck KGaA, Darmstadt, Germany, is the undisputed market and technology leader in liquid crystals, which are primarily used in televisions and mobile communication applications. We are also one of the leading suppliers of functional and decorative effect pigments. Our high-tech materials and solutions are used by customers from the consumer electronics, lighting, printing technology, plastics applications, and cosmetics industries. Within Performance Materials, the Group is also focusing on the growth dynamics of emerging markets.

Liquid Crystals

In 2013, the Liquid Crystals business unit developed an initial prototype of a 3D television that does not require glasses

In addition to developing new liquid crystal mixtures and individual LC substances to further develop products for television and mobile applications, the Liquid Crystals business unit is also focusing on materials that will enable information to be presented in true 3D, using technologies such as holographic displays. The division is furthermore working on the development of technologies for liquid crystal displays that will provide a realistic 3D viewing experience without the glasses required by current 3D televisions. In 2013, the company developed an initial prototype of this new generation of televisions. All research and development activities pertaining to the liquid crystals of tomorrow have been consolidated under the LC2021 initiative.

The company is also developing liquid crystals for entirely new applications. Liquid crystals can be used in items such as smart windows to regulate the transmission of light and heat through building facades. The Group is working together with architects and glass manufacturers on the windows of the future. Besides remote control features, liquid crystals provide flexibility in selecting the color as well as integrating windows into existing facades, and they also help save energy. Whether installing windows in new buildings or replacing old windows, liquid crystals offer a sustainable, innovative solution for the future.

OLEDs

OLEDs are being used in the latest technical applications, for instance smartwatches

Organic light-emitting diodes (OLEDs) are used in innovative lighting applications and display technologies. They provide brilliant colors and sharp images from any viewing angle; they have a long lifespan and are highly energy efficient. In addition, OLEDs enable round or flexible displays, making them perfect for use in the latest technical applications. One such example is the smartwatch, a wristwatch that provides additional computer functionality along with Internet access.

The name of the Merck KGaA, Darmstadt, Germany, product line for these types of applications is livilux®. The company has developed a strong portfolio of worldwide patents, based on more than ten years of experience.

→ *Research and Development at the Group*

Development partnerships with customers are a way of testing new technologies and making them market-ready. For instance, with printer manufacturer Seiko Epson, the Performance Materials division of Merck KGaA, Darmstadt, Germany, has co-developed a technology that can be used to print OLED displays. While the Group contributed its expertise in vacuum research and ink development to the collaboration, Seiko Epson contributed its expertise in print heads featuring micro piezo inkjet technology. This jointly developed technology offers the advantage of lower costs and higher material efficiency since, in contrast to vapor-deposited OLED displays, printed OLED displays are produced at room temperature in a non-toxic atmosphere. In addition, this technique only deposits material in the areas where diodes are actually located.

High-quality pigments and functional materials

Effect pigments in the Meoxal® family are suitable for a wide variety of high-performance applications

This broad term stands for high-quality decorative effect pigments and functional materials used in applications such as laser marking, conductive coatings, and heat-reflective glazing for greenhouses.

The Meoxal® brand is the latest development in effect pigments. These pigments captivate with their brilliant color saturation and exceptional performance, thanks to their innovative layer technology and the use of aluminum flakes as substrate. They are highly suitable for a multitude of high-performance applications, especially for automotive and plastic coatings. The first pigments in the new brand family – Meoxal® Wahiba Orange and Taklamakan Gold – were launched in the second quarter of 2013. The first examples of their practical application were showcased at the 2013 International Motor Show (IAA) in Frankfurt am Main.

The portfolio also includes cosmetic actives. For instance, 2013 saw the launch of RonaCare® Poppy SE, the innovative skin-firming product made from natural poppy seed extract. Besides skin-firming properties, skin protection and color adaptation are also topics of focus. Sun-tanned skin remains an ideal of beauty in western societies. To meet this need, the Group has developed RonaCare® Bronzyl™, which stimulates the production of melanin, the skin's natural tanning process. The opposite effect can be achieved with RonaCare® Pristine Bright™. This product supports a light skin tone, which is highly esteemed particularly in Asian cultures.

→ *Research and Development at the Group*

Life Science Tools

Number of employees in R&D: 778

R&D spending in 2013: € 159.8 million

Within the Life Science Tools division of Merck KGaA, Darmstadt, Germany, we are working with our customers to develop innovative solutions for the research, development and production of biopharmaceuticals and biotech processes worldwide.

Lab Solutions

In 2013, the Lab Solutions business unit developed the EZ-product family. It comprises the EZ-Fit™ Manifold, the EZ-Pak® Dispenser Curve, the EZ-Stream™ Pump, and the EZ-Fluo™ Rapid Detection System. The aim of these products is to streamline the bioburden analysis workflow. The EZ-Fit™ Manifold makes laboratory filtration easier thanks to its unique design that permits assembly and disassembly without tools, access to all internal areas for easy cleaning, and a low profile to increase operator comfort. Different filtration heads, all with quick-fit connections, make the manifold compatible with disposable filtration devices, stainless steel and glass funnels. The EZ-Pak® Dispenser Curve provides high-speed sterile membrane dispensing with no-touch operation. With the efficient EZ-Stream™ Pump, filtered fluids flow directly through the pump to waste, eliminating the need for intermediate waste containers. The pump is designed for quiet operation, and the vacuum level is compliant with regulatory standards. The EZ-product family is complemented by the EZ-Fluo™ Rapid Detection System, an easy-to-use, non-destructive, fluorescent staining-based system for rapid detection and quantification of microbial contamination in filterable samples.

Process Solutions

The Clarisolve® system is one of the latest products launched by the Process Solutions business unit

The Process Solutions business unit is also continuously working to develop new products. For instance, **Clarisolve® Depth Filters,** used in cell culture processing, were launched in September 2013. Their greater volumetric capacity and reduced turbidity over currently available depth filters significantly improve the clarification of pretreated feed streams. In addition, the Clarisolve® system does not require a secondary stage of clarification, while eliminating the need for centrifugation and reducing the pre-use flushing volume by up to 93%. This lowers the environmental burden and helps customers to improve overall process economics. In December 2013, Clarisolve® Depth Filters received an Innovation Award from "Pharmaceutical Manufacturing Magazine", a U.S. trade publication.

Bioscience

The Bioscience business unit is a prime example of innovation. For instance, the Life Science Tools division has developed, among others, the Muse™ Cell Analyzer, which is one of the world's leading analytical devices. The Muse™ Cell Analyzer provides real-time, multidimensional information on cell populations. This semistationary flow cytometer enables faster, more accurate decision-making based on greater insight into cell health. As a result, the speed and efficiency of cell analysis are enhanced. In 2013, the Muse™ Cell Analyzer was presented with the renowned silver R&D Magazine 100 Award (Stevie Award), as well as the Good Design Award of the Chicago Athenaeum: Museum of Architecture and Design.

→ *Research and Development at the Group*

Collaborations: Efficiency and innovation through partnerships

It is not always possible to precisely plan the process of researching and developing new products and solutions. Nevertheless, we aim to improve the efficiency of our R&D activities in this respect, which is why we are constantly enhancing our organization and also engaging in new types of collaborative partnerships.

Through our collaboration activities, we constantly maintain contact with leading scientists at universities and institutes worldwide. For example, the company is a partner in the Industrial Liaison Program of the Massachusetts Institute of Technology (MIT) in the United States, and we cooperate with the University of Heidelberg. In addition, we collaborate within the scope of initiatives and joint projects funded, for instance, by the European Union or German federal ministries.

Further collaborations formed in 2013:

- In April 2013, the Group inaugurated its "New Business R&D and Application Lab" in Taiwan. The aim of the laboratory is to work with customers locally to develop materials and first-rate services for the development of OLED panels, LED lighting, 3D technology and flexible displays. This will make it possible to considerably shorten new product development lead times.
- In May 2013, the Group announced the launch of a project sponsored by the German Federal Ministry of Education and Research (BMBF) to develop high-efficiency cobalt-based dye-sensitized solar cells. Merck KGaA, Darmstadt, Germany, the consortium leader, is participating in the research project together with 3GSolar from Jerusalem, Israel, and Color Synthesis Solutions Ltd. (CSS) from Manchester, United Kingdom. The partners to the project are pursuing the goal of significantly increasing the efficiency and stability of dye-sensitized solar cells.
- In July 2013, the Group entered into a partnership with the Kymeta Corporation, a company headquartered in the United States. Kymeta is developing ultra-thin antennae for satellite communication that are based on liquid crystal technology. Liquid crystals allow these antennae to be made in such a way that they can someday be used for satellite communication in moving objects such as cars, planes, and trains.
- In November 2013, the Group announced the start of the POPUP research project funded by the German Federal Ministry of Education and Research (BMBF). This aims to help achieve the breakthrough of organic photovoltaics (OPV). The research consortium coordinated by the Group consists of ten technology leaders working in various areas of OPV. The objectives of POPUP are to develop significantly more efficient and stable OPV materials for cost-effective industrial printing and coating processes.

→ *Research and Development at the Group*

→ In December 2013, Merck KGaA, Darmstadt, Germany, joined forces with market-leading partners from the automobile industry to launch a project sponsored by the German Federal Ministry of Education and Research (BMBF). This initiative aims to develop liquid crystal-based headlight systems with components that can be selectively turned on or off to provide optimal illumination, for instance during complex traffic situations.

MS Ventures is a strategic corporate venture capital fund that makes early-stage investments in innovative biotech firms. The investments focus on the Biopharmaceuticals division's fields of research and therapy. The fund was set up in 2009. In order for the Biopharmaceuticals division to be able to invest more in early innovation, in 2013 the size of MS Ventures was increased to € 100 million. In addition, MS Ventures also manages the € 10 million MS Israel Bioincubator Fund as well as spin-off companies funded through the € 30 million Entrepreneur Partnership Program.

Open Innovation: In 2013, a total of 30 students from around the world participated for the third time in the one-week Innovation Cup of our Biopharmaceuticals division. The winning team developed a convincing business plan for a new approach to enhance the efficacy of cancer vaccines. Internal R&D experts are currently looking at ways to advance the idea. Apart from competitions, the company also offers attractive open innovation opportunities to talented future scientists, for example via the University of Heidelberg and MIT in the United States.

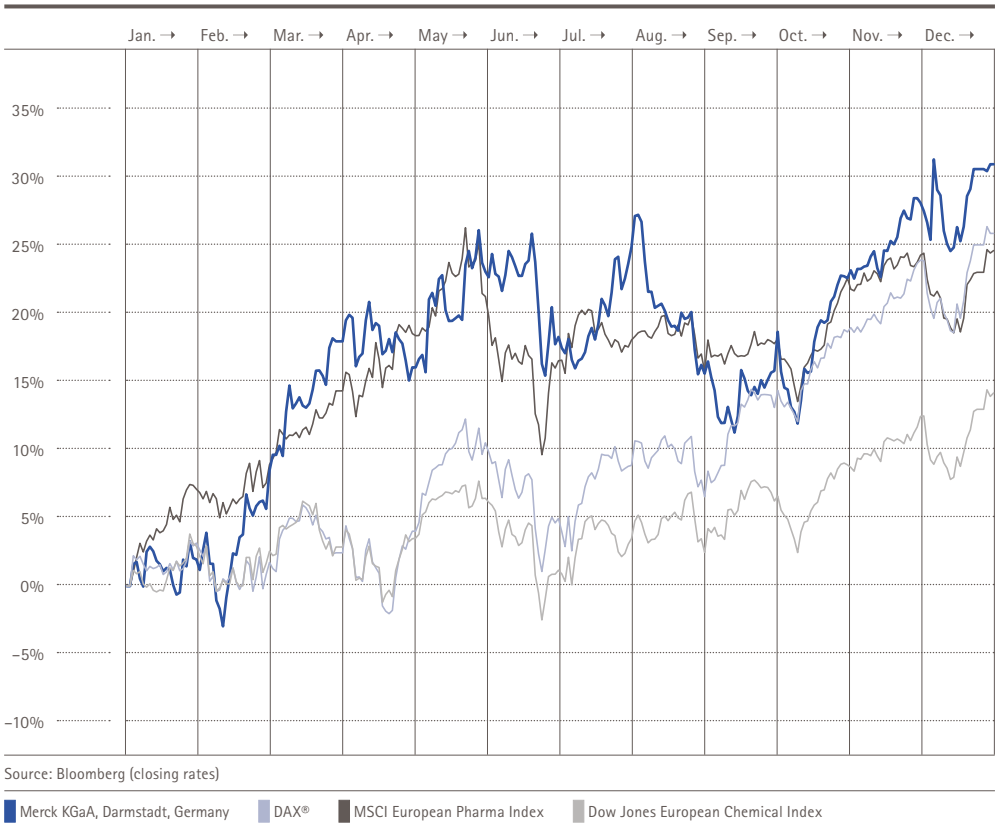
Company Shares

At a glance

In 2013, the share price of Merck KGaA, Darmstadt, Germany, rose by more than 30%, thus outperforming the DAX® by five percentage points. Company shares were six percentage points stronger than the relevant pharmaceutical industry index and also outperformed the relevant chemical industry index by nearly 17 percentage points. Reaching an annual high of € 130.50 at the beginning of December 2013, company shares also hit a new all-time high, closing not far from this level at € 130.25 at the end of December 2013.

The average daily trading volume decreased by 25%, from around 300,000 in 2012 to more than 230,000 shares in 2013. The North America region continued to dominate with around 43% of shares in free float, slightly down compared to 51% in 2012. By investor type, GARP (growth at reasonable price) and value investors dominated, as in 2012. At the end of 2013, the top five investors held around 28% of the free float*.

Share price development from January 1, 2013 to December 31, 2013



Source: Bloomberg (closing rates)

Merck KGaA, Darmstadt, Germany | DAX® | MSCI European Pharma Index | Dow Jones European Chemical Index

*Relative to the Group's net shareholding

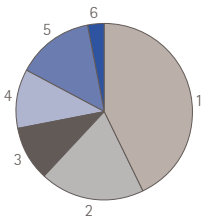
→ *Company Shares*

Share data [1]

		2013	2012
Dividend	/ €	1.90	1.70
Share price high	/ €	130.50	106.55
Share price low	/ €	97.06	72.37
Year-end share price	/ €	130.25	99.83
Daily average number of shares traded [2]	/ in units	234,308	310,608
Market capitalization [3] (at year-end)	/ € million	28,315	21,702
Market value of authorized shares [4] (at year-end)	/ € million	8,417	6,451

[1] Share-price relevant figures relate to the closing price in XETRA® trading on the Frankfurt Stock Exchange
[2] Based on the floor trading systems of all German exchanges and the regulated market on XETRA®
[3] Based on the theoretical number of shares (217.4 million)
[4] Based on the number of shares in free float (64.6 million)
Source: Bloomberg, Thomson

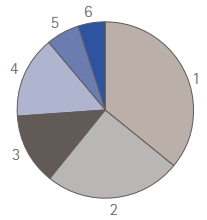
Identified investors by region as of December 2013



1	North America	43%
2	United Kingdom	18%
3	German Retail/Undisclosed	10%
4	Germany	11%
5	Rest of Europe	14%
6	Rest of World	3%

Source: King Worldwide (as of December 2013)
Total number of shares outstanding: 64,621,126

Identified investors by type as of December 2013



1	GARP (Growth at reasonable price)	36%
2	Value	25%
3	Growth	13%
4	Index	15%
5	Hedge	6%
6	Other	5%

Source: King Worldwide (as of December 2013)

Report on Economic Position

Macroeconomic and sector-specific environment

The year 2013 was marked by a strengthening in advanced economies and a slowdown of growth in emerging markets. However, emerging markets continued to account for the bulk of global growth. According to projections by the International Monetary Fund (IMF), global gross domestic product (GDP) increased by 2.9% in 2013. While advanced economies only generated an increase of 1.2%, the GDP of emerging economies and developing countries grew by 4.5%.

The GDP of the United States, the world's largest economy, grew by 1.6% in 2013, a lower rate than expected a year ago. Growth in the United States was hampered by the fiscal consolidation and conflicts over the increasing debt ceiling. For the eurozone, the IMF noted a decline in gross domestic product by 0.4%. While the southern European countries still struggled, the core economies showed signs of recovery. Spurred by fiscal policy changes, Japan also showed signs of economic recovery.

The overall global trends and increased weight of emerging markets are supporting the development at Merck KGaA, Darmstadt, Germany, with the Emerging Markets region contributing around three-quarters of total organic sales growth in 2013.

Pharmaceutical market

Emerging economies main driver of pharmaceutical market growth

IMS Health, a provider of market information for the health care industry, reported a 2.9% increase in pharmaceutical market sales in 2013. This growth was driven by emerging economies; among others the Chinese pharmaceutical market grew by 14.5% and the Latin American market grew by 10.8%. By contrast, due to continued cost-containment measures and patent expiries, the U.S. and EU markets declined slightly. Remarkably, the global market for multiple sclerosis treatments, which includes the Biopharmaceuticals division's top-selling product Rebif®, grew by 10%, which was significantly above the market average, among others spurred by recent launches of new products according to research by Evaluate Pharma.

The pharmaceutical research firm Nicholas Hall reported that the over-the-counter (OTC) drug market grew by 4.7% in the year 2013. The growth was driven by Latin America and Asia, while Europe, where the Consumer Health division of Merck KGaA, Darmstadt, Germany, generates the largest share of its sales, grew by 3.7% in 2013.

Markets for high-tech materials

LC remains dominant display technology

With its Liquid crystals business the Group is the leading supplier of LC mixtures to the display industry, which experienced a sluggish year in 2013 after years of significant growth. The market analysis provided by Display Search came to the conclusion that only a slight increase of 1.4% in the annual area of flat panel display shipments in 2013 occurred. Notably, with more than 90% of the total market, LC remains the dominant display technology with TV display size as the major growth driver.

→ *Macroeconomic and sector-specific environment*

Cosmetics and automotive coatings represent major markets for the company's Pigments business. The German Automotive Industry Association (VDA) reported a positive development for global sales of passenger cars, which exceeded expectations and grew by 5% in 2013. The growth was driven by the U.S. (+7%) and China (+21%) with China becoming the world's largest market for passenger cars, while markets in Japan and western Europe slightly declined.

Life science market

Within the life science sector, the Life Science Tools division of Merck KGaA, Darmstadt, Germany, is a leading supplier of products and services which are used in the research, development and production of biotech and pharmaceutical drugs as well as general laboratory applications.

Modest development in U.S. and European laboratory products market

The market researchers from Frost & Sullivan reported modest growth of 1.2% for the global laboratory products market in 2013, below last year's expectations. Significant differences in growth between regions existed: Markets in Europe (+0.1%) and the United States (+0.3%) remain challenging due to uncertain economic conditions and due to budget sequestration measures in the academic and governmental sectors in the United States. Emerging economies and developing countries grew significantly faster, however, with approximately 11% of the global market volume remaining relatively small in size.

Dependent on the sales and R&D spending of pharmaceutical companies, the market for Process Solutions suffered from a 1.5% decline in industry R&D spending in 2013, as reported by Evaluate Pharma. At the same time, the market was positively influenced by pharmaceutical sales, which grew by 2.9% in 2013.

Review of forecast against actual business developments

At the beginning of 2013 we forecast moderate organic sales growth for the Group driven by the good performance of the Biopharmaceuticals and the Life Science Tools divisions of Merck KGaA, Darmstadt, Germany. As we continued to focus on the implementation of our "Fit for 2018" transformation and growth program, we expected EBITDA pre one-time items to increase further as a result of realized net savings. We forecast a high free cash flow and expected bigger cash-outs for the restructuring cost, while for business free cash flow, the Group's third financial key performance indicator, we expected a moderate decrease compared to 2012, as we had already delivered major working capital reductions in 2012 and as we planned an increase in investments in property, plant and equipment in 2013.

Accelerated implementation of efficiency measures leads to strong improvement in profitability

Based on the successful acceleration of our transformation process, which led to faster implementation of the cost-savings initiatives, we were able to announce in spring 2013 that we would deliver our mid-term financial targets for 2014 one year earlier than originally expected. The good operational development of our Consumer Health and Performance Materials divisions further contributed to this, which led to the fact that we further upgraded our view on the financial performance of the company with the announcement of our third-quarter results.

When assessing the results of 2013 versus the original projections, it can be stated that we have achieved our strategic objectives of the "Fit for 2018" transformation and growth program to realize efficiencies and to deliver organic growth of the business in 2013. The Group's actual business figures for 2013 confirmed our forecast. As forecast in the Annual Report for 2012, we achieved organic sales growth of 4.2% and we increased our EBITDA pre one-time items by € 288 million. Thereby, the Biopharmaceuticals and the Life Science Tools divisions developed positively in line with the expected development. Sales and EBITDA pre one-time items of the Consumer Health division increased more than expected due to the strong development of core brands and the substantial progress in driving the turnaround of the business. A favorable Liquid Crystals mix and leaner Pigments & Cosmetics organization led to higher EBITDA pre one-time items of the Performance Materials division. Driven by the significant increase of EBITDA pre one-time items and further reduction of working capital, we exceeded our expectations and delivered business free cash flow at the previous year's level for the Group as well as the Biopharmaceuticals and Performance Materials divisions.

→ *Review of forecast against actual business developments*

Review of forecast against actual business developments in 2013

	Actual results 2012 € million	Forecast 2013 in Annual Report 2012	Guidance for 2013 provided in: Q1/2013 Interim Report	Q2/2013 Interim Report	Q3/2013 Interim Report	Actual results 2013 € million
Group						
Sales	10,740.8	moderate organic growth	€ 10.7 – 10.9 billion	€ 10.7 – 10.9 billion	€ 10.7 – 10.9 billion	10,700.1 +4.2% org.
EBITDA pre one-time items	2,964.9	increase	€ 3.1 – 3.2 billion	€ 3.1 – 3.2 billion	€ 3.2 – 3.25 billion	3,253.3 +9.7%
Business free cash flow	2,969.3	moderate decrease	–	–	–	2,960.0 –0.3%
Biopharmaceuticals						
Sales	5,995.8	moderate organic growth	moderate organic growth	moderate organic growth	moderate organic growth	5,953.6 +3.9% org.
EBITDA pre one-time items[1]	1,824.7	improvement	€ 1.9 – 2.0 billion	€ 1.9 – 2.0 billion	€ 1.9 – 2.0 billion	1,955.0 +7.1%
Business free cash flow[1]	1,880.2	moderate decrease	–	–	–	1,875.7 –0.2%
Consumer Health						
Sales	472.6	stable	stable	stable	moderate organic growth	476.9 +5.6% org.
EBITDA pre one-time items[1]	66.8	slight increase	€ 70 – 75 million	€ 70 – 75 million	€ 73 – 77 million	72.5 +8.5%
Business free cash flow[1]	88.8	moderate decrease	–	–	–	83.9 –5.5%
Performance Materials						
Sales	1,674.2	slight organic decline	stable	stable	stable	1,642.1 +3.0% org.
EBITDA pre one-time items[1]	741.9	remain on high level	€ 700 – 740 million	€ 730 – 750 million	€ 750 – 770 million	779.7 +5.1%
Business free cash flow[1]	798.1	moderate decrease	–	–	–	787.8 –1.3%
Life Science Tools						
Sales	2,598.2	moderate organic growth	moderate organic growth	moderate organic growth	moderate organic growth	2,627.5 +5.5% org.
EBITDA pre one-time items[1]	614.4	growth in line with sales	€ 620 – 640 million	€ 620 – 640 million	€ 620 – 640 million	642.8 +4.6%
Business free cash flow[1]	511.3	moderate decrease	–	–	–	493.8 –3.4%
Corporate and Other						
EBITDA pre one-time items[1]	–282.9	improvement	€ –210 million	€ –210 million	€ –210 million	–196.7 –30.5%

[1] The actual figures for 2012 have been adjusted. More information can be found in Note (52) of the consolidated financial statements.

Course of business and economic position Group

Overview of 2013

→ Sales stable – solid organic growth of 4.2% almost fully offsets negative foreign exchange effects of –4.7%
→ Accelerated implementation of efficiency measures within the scope of the "Fit for 2018" transformation and growth program
→ EBITDA pre one-time items increased by 10% to around € 3.25 billion – Key drivers are the positive business performance of all four divisions and the successful implementation of restructuring measures
→ Earnings per share pre one-time items up 15% to € 8.78
→ Business free cash flow again reaches the high previous year's level of around € 3.0 billion
→ Net financial debt lowered considerably to € 0.3 billion as of December 31, 2013
→ The Group's long-term credit ratings upgraded to "A" (Standard & Poor's) and "A3" (Moody's)

Group | Key figures

€ million	2013	2012	Change in %
Total revenues	11,095.1	11,172.9	–0.7
Sales	10,700.1	10,740.8	–0.4
Operating result (EBIT)	1,610.8	963.6	67.2
Margin (% of sales)	15.1	9.0	
EBITDA	3,069.2	2,360.2	30.0
Margin (% of sales)	28.7	22.0	
EBITDA pre one-time items	3,253.3	2,964.9	9.7
Margin (% of sales)	30.4	27.6	
Earnings per share pre one-time items (€)	8.78	7.61	15.4
Business free cash flow	2,960.0	2,969.3	–0.3

Development of total revenues and sales as well as results of operations

In 2013, Merck KGaA, Darmstadt, Germany, performed well in a challenging market environment. Despite adverse exchange rate movements, strong earnings improvements were achieved, thanks mainly to the accelerated implementation of the efficiency measures within the scope of the "Fit for 2018" transformation and growth program. In 2013, total revenues of the Group declined slightly by –0.7% to € 11,095 million (2012: € 11,173 million). Organic growth increased total revenues by 3.8%. Negative foreign exchange effects lowered total revenues by –4.6%. Apart from the negative exchange rate movements of Latin American currencies and the U.S. dollar, this decline was mainly due to the exchange rate development of the Japanese yen. Acquisitions contributed 0.1% to the increase. Royalty, license and commission income, which is disclosed as part of total revenues, decreased by –8.6% to € 395 million (2012: € 432 million). This was mainly the result of the expiration of two license agreements in the Biopharmaceuticals division.

→ *Course of business and economic position*

Sales (total revenues less royalty, license and commission income) saw solid organic growth of 4.2% in 2013 but the increase was outweighed by foreign exchange effects of –4.7%. Acquisitions increased sales by 0.1%. Overall, sales decreased slightly by € 41 million to € 10,700 million in 2013 (2012: € 10,741 million).

The development of sales in the individual quarters in comparison with 2012 as well as the respective organic growth rates are presented in the following table:

Group | Sales and organic growth by quarter[1]

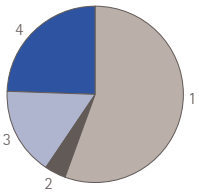
€ million/organic growth in %

[1] Quarterly breakdown unaudited

As regards the distribution of sales across the four operating divisions of the Group, no significant changes occurred in 2013 compared with 2012. The Biopharmaceuticals division once again generated 56% of Group sales, remaining the largest division in terms of sales. The Life Science Tools division and Performance Materials followed, contributing 25% (2012: 24%) and 15% (2012: 16%) to Group sales, respectively. As in 2012, the Consumer Health division accounted for 4% of Group sales.

Group | Sales by division – 2013

€ million/% of sales



1	Biopharmaceuticals	5,953.6	56%
2	Consumer Health	476.9	4%
3	Performance Materials	1,642.1	15%
4	Life Science Tools	2,627.5	25%

→ *Course of business and economic position*

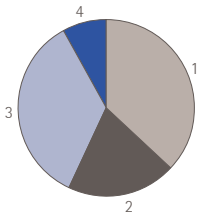
Group | Sales components by division – 2013

€ million/change in %	Sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Biopharmaceuticals	5,953.6	3.9	–4.6	–	–0.7
Consumer Health	476.9	5.6	–4.7	–	0.9
Performance Materials	1,642.1	3.0	–4.9	–	–1.9
Life Science Tools	2,627.5	5.5	–4.8	0.5	1.1
Group	**10,700.1**	**4.2**	**–4.7**	**0.1**	**–0.4**

All four divisions of the Group posted organic sales increases with growth rates between 3.0% and 5.6% as well as negative exchange rate effects of around –5% in each division. Achieving organic sales growth of 3.9%, which corresponded to an absolute increase of € 235 million, the Biopharmaceuticals division made the strongest contribution to organic sales growth, followed by the Life Science Tools division with organic sales growth of € 142 million and a growth rate of 5.5%, as well as Performance Materials with € 51 million, or 3.0%. With an organic sales growth rate of 5.6%, the Consumer Health division reported the highest percentage increase, corresponding to an absolute sales increase of € 26 million.

Group | Sales by region – 2013

€ million/% of sales



1	Europe	3,984.6	37%
2	North America	2,078.0	19%
3	Emerging Markets	3,795.6	36%
4	Rest of World	841.9	8%

From a regional perspective, the dynamic business performance in the Emerging Markets region, which encompasses Latin America and Asia with the exception of Japan, contributed first and foremost to the organic growth of the Group. At 9.3%, which corresponded to an absolute organic sales increase of € 347 million, the region delivered very strong organic growth, which was primarily driven by the Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany. Including currency headwinds of –7.1%, Group sales in the Emerging Markets region totaled € 3,796 million (2012: € 3,712 million). In 2013, the region thus increased its contribution to Group sales by two percentage points to 36%.

→ *Course of business and economic position*

In Europe, organic sales growth of 1.4% was partially cancelled out by negative foreign exchange effects of –0.7%. Acquisitions contributed 0.3% to the increase in sales. Overall, sales in Europe increased slightly by 1.1% to € 3,985 million € (2012: € 3,943 million). Europe's percentage contribution to Group sales thus remained unchanged at 37%.

The North America region posted sales amounting to € 2,078 million. (2012: € 2,128 million), which represents a year-on-year decrease of –2.4%. With a slight organic increase in sales of 0.6% coupled with negative exchange rate effects of –3.0%, North America's contribution to Group sales was 19% (2012: 20%). Higher demand from customers of the Process Solutions and Lab Solutions business units of the Life Science Tools division made up for the slight organic sales decline incurred by the Biopharmaceuticals division in the region.

The Rest of World region, i.e. Japan, Africa and Australia/Oceania, generated € 842 million (2012: € 958 million) or 8% of Group sales (2012: 9%). The decline in sales was largely the outcome of a substantial foreign exchange impact of –16.0% mainly attributable to the Japanese yen. Organic growth of 3.9% in this region was primarily generated by the Biopharmaceuticals division.

Group | Sales components by region – 2013

€ million/change in %	Sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	3,984.6	1.4	–0.7	0.3	1.1
North America	2,078.0	0.6	–3.0	–	–2.4
Emerging Markets	3,795.6	9.3	–7.1	–	2.2
Rest of World	841.9	3.9	–16.0	–	–12.1
Group	**10,700.1**	**4.2**	**–4.7**	**0.1**	**–0.4**

Cost of sales of the Group fell by –5.2% to € 2,993 million (2012: € 3,158 million). Despite lower royalty, license and commission income as well as negative foreign exchange effects, gross profit increased by 1.1% to € 8,103 million (2012: € 8,015 million). Gross margin, i.e. gross profit as a percentage of sales, grew by around one percentage point to 75.7% (2012: 74.6%). This improvement was primarily due to efficiency increases in connection with the "Fit for 2018" transformation and growth program as well as to a more favorable product mix, especially in the Liquid Crystals business unit.

Group marketing and selling expenses declined by –3.5% to € 2,326 million in 2013 (2012: € 2,411 million). Foreign exchange effects, yet also the faster achievement of the savings targets as part of the "Fit for 2018" program initiated in 2012 were primarily responsible for this. The decline in marketing and selling costs was mainly attributable to the Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany. Consequently, for the Group the proportion of these expenses to sales declined to 21.7% (2012: 22.4%). Administration expenses of the Group increased slightly to € 562 million (2012: € 552 million).

→ *Course of business and economic position*

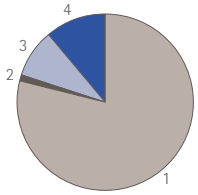
Royalty, license and commission expenses amounted to € 567 million in 2013 (2012: € 580 million), declining by –2.2%, which was largely the result of lower Rebif® co-marketing expenses in the United States.

In 2013, other operating expenses (net) declined by € –408 million to € 718 million (2012: € 1,126 million). This sharp drop in the net expense balance primarily reflects the level of one-time items recorded here. During 2013, one-time items, including impairments, fell by € –277 million to € 387 million (2012: € 664 million). In connection with "Fit for 2018", € 166 million consisting of restructuring charges of € 130 million and impairments of € 36 million were incurred in 2013. In 2012, one-time expenses amounting € 538 million consisting of restructuring charges of € 504 million and impairments of € 34 million were recorded in this context. In 2013, other operating expenses included an impairment of € 127 million on the intangible asset for Humira® in the Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, which was classified as a one-time item. The impairment loss resulted from an out-of-court settlement with AbbVie Biotechnology Ltd., Bermudas, and Abbott GmbH & Co. KG, Germany (together referred to as "AbbVie"). Under this settlement, Merck KGaA, Darmstadt, Germany, will receive no further royalty payments for this product from AbbVie as of the second half of 2014. Further reasons for the decline in other operating expenses included lower litigation expenses and impairments on receivables as well as gains from operational currency hedges. A detailed presentation of the development of other operating expenses and income can be found in the consolidated financial statements under Note [28].

Research and development (R&D) expenses decreased slightly by –0.5% compared to 2012, amounting to € 1,504 million (2012: € 1,511 million) and thus continued to represent 14.1% of sales. As in 2012, 79% of Group research and development expenses were attributable to the Biopharmaceuticals division. The Life Science Tools division accounted for 11%, the second-highest share of Group research and development expenses.

Group | Research and development expenses by division – 2013

€ million/in %



1	Biopharmaceuticals	1,182.8	79%
2	Consumer Health	17.1	1%
3	Performance Materials	143.0	9%
4	Life Science Tools	159.8	11%

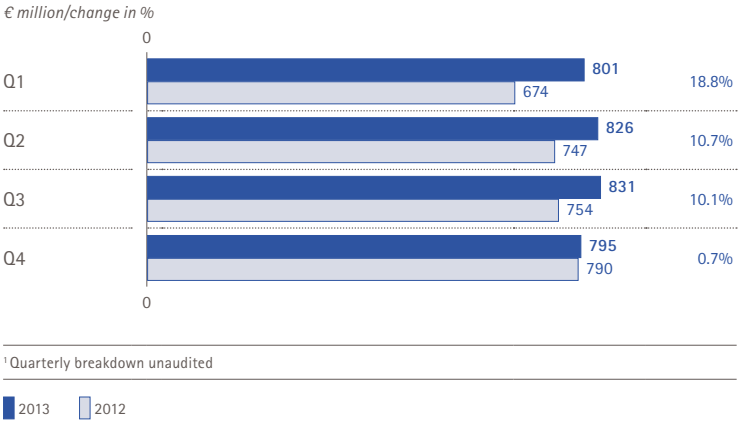
Amortization of intangible assets, which resulted primarily from the purchase price allocations for the acquisitions of Serono SA and the Millipore Corporation, decreased by –6.7% to € 813 million (2012: € 872 million). The decline was mainly due to the expiration of the amortization periods for the two intangible assets Avonex® and Enbrel®, which were acquired within the scope of the Serono SA acquisition.

→ *Course of business and economic position*

In 2013, the Group delivered a significant increase in the operating result (EBIT), which soared by 67.2% to € 1,611 million (2012: € 964 million), as well as in EBITDA (operating result before depreciation and amortization), which rose by 30.0% to € 3,069 million (2012: € 2,360 million). This was due on the one hand to the good performance of operating business and on the other hand to the sharp decline in the very high level of one-time items incurred in 2012. Adjusted for one-time expenses (excluding impairments) totaling € 184 million (2012: € 605 million), EBITDA pre one-time items, the key financial indicator used to steer operating business, grew 9.7% to € 3,253 million (2012: € 2,965 million). The resulting EBITDA pre margin thus increased from 27.6% to 30.4%. The profitability improvement of nearly three percentage points stemmed mainly from the organic sales growth achieved in 2013 as well as strict cost management. Above all, the faster implementation of the efficiency measures within the scope of the "Fit for 2018" transformation and growth program had a positive effect on profitability.

The development of EBITDA pre one-time items in the individual quarters in comparison with 2012 is presented in the following table:

Group | EBITDA pre one-time items and change by quarter[1]



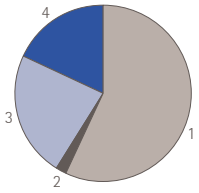
All divisions contributed to the increase in EBITDA pre one-time items and the EBITDA pre margin. With an improvement of € 130 million in EBITDA pre to € 1,955 million, the Biopharmaceuticals division achieved the strongest absolute increase of all the operating divisions. Consequently, at 57% (2012: 56%) the division's contribution to EBITDA pre was the highest among all the operating divisions (excluding the decline in Group EBITDA pre by € –197 million due to Corporate and Other). Contributing 23% of EBITDA pre as in 2012, the Performance Materials division reported EBITDA pre one-time items of € 780 million (2012: € 742 million). Owing to its good business performance, the division increased this key indicator by € 38 million or 5.1%. At 18%, the Life Science Tools division's percentage share of EBITDA pre one-time items declined slightly (2012: 19%,

→ *Course of business and economic position*

excluding Corporate and Other), although this division also posted earnings growth of 4.6% or € 28 million. With EBITDA pre one-time items of € 72 million (2012: € 67 million), the Consumer Health division once again contributed 2% to the EBITDA pre one-time items of all operating divisions.

Group | EBITDA pre one-time items by division – 2013

€ million/in %



1	Biopharmaceuticals	1,955.0	57%
2	Consumer Health	72.5	2%
3	Performance Materials	779.7	23%
4	Life Science Tools	642.8	18%

Not presented: Decline in Group EBITDA pre one-time items by € –197 million due to Corporate and Other

The financial result of the Group improved by 12.7% to € –222 million (2012: € –255 million). This mainly reflects the lower interest expense on borrowed capital following the sharp drop in net financial debt as well as the decline in net interest expense for pension provisions. More information on the financial result can be found in the consolidated financial statements under Note [31].

Income taxes amounted to € –180 million (2012: € –130 million) and led to a tax ratio of 12.9% (2012: 18.3%). The low tax ratio in 2013 resulted mainly from one-time deferred tax income owing to changes in the applicable tax rates. More information on income taxes can be found in the consolidated financial statements under Note [32].

Owing to this development of expenses and income, profit after tax more than doubled, totaling € 1,209 million (2012: € 579 million). Net income, i.e. profit after tax attributable to shareholders of Merck KGaA, Darmstadt, Germany, for 2013 was € 1,202 million (2012: € 567 million), yielding earnings per share of € 5.53 (2012: € 2.61). Adjusted for one-time items, earning per share (EPS adjusted by net of tax effect of one-time items and amortization of purchased intangible assets) increased by 15.4% to € 8.78 (2012: € 7.61).

→ *Course of business and economic position*

Net assets and financial position

Group | Balance sheet structure

	Dec. 31, 2013		Dec. 31, 2012		Change	
	€ million	in %	€ million	in %	€ million	in %
Current assets	7,384.5	35.5	6,626.1	30.6	758.4	11.4
of which:						
Cash and cash equivalents	980.8		729.7		251.1	
Current financial assets	2,410.5		1,797.9		612.6	
Trade accounts receivable	2,021.4		2,114.6		–93.2	
Inventories	1,474.2		1,533.9		–59.7	
Other current assets	497.6		450.0		47.6	
Non-current assets	13,434.1	64.5	15,017.2	69.4	–1,583.1	–10.5
of which:						
Intangible assets	9,867.2		10,944.5		–1,077.3	
Property, plant and equipment	2,647.2		2,953.6		–306.4	
Other non-current assets	919.7		1,119.1		–199.4	
Total assets	**20,818.6**	**100.0**	**21,643.3**	**100.0**	**–824.7**	**–3.8**
Current liabilities	3,898.8	18.7	4,561.6	21.1	–662.8	–14.5
of which:						
Current financial liabilities	440.4		1,091.4		–651.0	
Trade accounts payable	1,364.1		1,288.3		75.8	
Current provisions	494.7		684.3		–189.6	
Other current liabilities	1,599.6		1,497.6		102.0	
Long-term liabilities	5,850.6	28.1	6,666.9	30.8	–816.3	–12.2
of which:						
Non-current financial liabilities	3,257.5		3,362.1		–104.6	
Non-current provisions	1,011.1		891.7		119.4	
Provisions for pensions and other post-employment benefits	910.9		1,211.7		–300.8	
Other non-current liabilities	671.1		1,201.4		–530.3	
Equity	11,069.2	53.2	10,414.8	48.1	654.4	6.3
Total liabilities and equity	**20,818.6**	**100.0**	**21,643.3**	**100.0**	**–824.7**	**–3.8**

→ *Course of business and economic position*

The total assets of the Group declined in 2013 by € –825 million or –3.8% to € 20,819 million (2012: € 21,643 million). This decline was due, among other things, to the repayment of a bond with a nominal volume of € 750 million as well as the cash transfer of € 200 million to plan assets to cover pension obligations in Germany. Total assets decreased in 2013 because plan assets were netted with pension obligations. Exchange rate changes also lowered total assets. Whereas current assets increased by € 758 million, non-current assets declined by € –1,583 million. The increase in current assets resulted mainly from the development of cash and cash equivalents, which increased by € 251 million, as well as of liquid financial assets, which increased by € 613 million, despite the bond repayment and the cash transfer to the plan assets. This reflects the excellent liquidity position of the Group. The decline in non-current assets was due mainly to depreciation and amortization of intangible assets as well as property, plant and equipment. Goodwill included in intangible assets amounted to € 4,583 million (2012: € 4,696 million) and was thus approximately at the same level as in 2012. The ratio of non-current assets to total assets (asset ratio) declined from 69.4% to 64.5%.

On the liabilities side, equity increased by € 654 million to € 11,069 million (2012: € 10,415 million). The main driver of this increase was profit after tax of € 1,209 million in 2013. The increase was counterbalanced mainly by negative exchange rate changes as well as dividend payments for 2012. As of December 31, 2013, the equity ratio increased by more than five percentage points to 53.2% (2012: 48.1%). Owing to the increase in equity on the one hand and the decrease in non-current assets on the other hand, asset coverage as of December 31, 2013 improved significantly to 82.4% (2012: 69.4%). Asset coverage indicates to what extent non-current assets are covered by equity. Current liabilities declined mainly owing to the repayment of the bond with a nominal volume of € 750 million that matured in 2013. The decline in non-current liabilities was largely the result of lower pension provisions as well as the decline in deferred tax liabilities. The sum of current and non-current liabilities declined by € –1,479 million to € 9,749 million from € 11,228 million. This excellent decline of –13.2% strengthened the consolidated balance sheet further. The financing structure (ratio of current liabilities to total liabilities) also improved. As of December 31, 2013, short-term liabilities were 40.0% of total liabilities (2012: 40.6%).

→ *Course of business and economic position*

Group | Net financial debt

	Maturity	Interest rate (%)	Financial Covenant	Book value Dec. 31, 2013 € million	Book value Dec. 31, 2012 € million	Change € million	Change in %
Eurobond 2009/2013 (Nominal volume € 750 million)	Sep. 2013	4.875	No	–	749.1	–	–
Eurobond 2010/2015 (Nominal volume € 1,350 million)	March 2015	3.375	No	1,348.2	1,346.7	1.5	0.1
Eurobond 2009/2015 (Nominal volume € 100 million)	Dec. 2015	3.615	No	100.0	100.0	–	–
Eurobond 2006/2016 (Nominal volume € 250 million)	June 2016	5.875	No	222.4	228.2	–5.8	–2.5
Eurobond 2009/2016 (Nominal volume € 60 million)	Nov. 2016	4.000	No	60.0	60.0	–	–
Eurobond 2009/2019 (Nominal volume € 70 million)	Dec. 2019	4.250	No	69.0	68.8	0.2	0.3
Eurobond 2010/2020 (Nominal volume € 1,350 million)	March 2020	4.500	No	1,343.1	1,342.2	0.9	0.1
Total bonds				**3,142.7**	**3,895.0**	**–752.3**	**–19.3**
Other financial liabilities			No	555.2	558.5	–3.3	–0.6
Total financial liabilities				**3,697.9**	**4,453.5**	**–755.6**	**–17.0**
less							
Cash and cash equivalents				980.8	729.7	251.1	34.4
Current financial assets				2,410.5	1,797.9	612.6	34.1
Net financial debt				**306.6**	**1,925.9**	**–1,619.3**	**–84.1**

Financial liabilities were reduced by € –756 million in 2013, amounting to € 3,698 million as of December 31, 2013 (2012: € 4,454 million). Owing to the increase in cash and cash equivalents, the decrease in net financial debt was even greater than that of financial liabilities. In 2013, net financial debt decreased by € –1,619 million or –84.1% to € 307 million (2012: € 1,926 million). Expected future cash flows such as repayments and interest from financial liabilities are presented in the consolidated financial statements under Note [57] "Management of financial risks".

→ *Course of business and economic position*

Group | Working capital

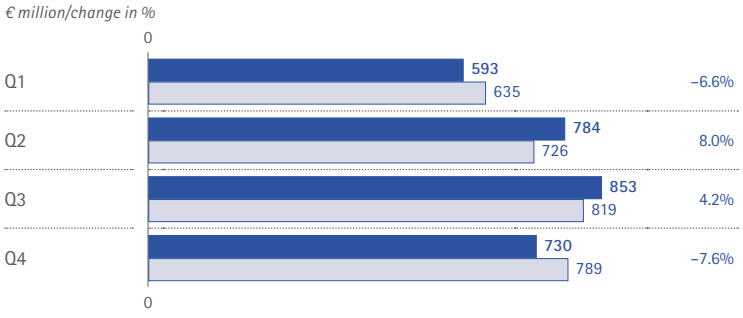
€ million	Dec. 31, 2013	Dec. 31, 2012	Change in € million	Change in %
Trade accounts receivable	2,021.4	2,114.6	–93.2	–4.4%
Inventories	1,474.2	1,533.9	–59.7	–3.9%
Trade accounts payable	–1,364.1	–1,288.3	–75.8	–5.9%
Working capital	**2,131.5**	**2,360.2**	**–228.7**	**–9.7%**
% of sales (last 12 months)	19.9%	22.0%		

Following a sharp reduction in working capital in 2012, a further substantial decrease of –9.7% to € 2,132 million was achieved in 2013. Consequently, working capital decreased to 19.9% of sales (2012: 22.0%).

Business free cash flow of the Group in 2013 amounted to € 2,960 million (2012: € 2,969 million), thus remaining at the previous year's high level. The composition of this figure is presented in the Group management report under "Internal Management System".

The distribution of business free cash flow across the individual quarters as well as the percentage changes in comparison with 2012 were as follows:

Group | Business free cash flow and change by quarter[1]



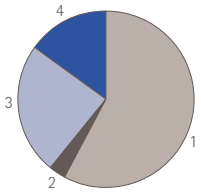
[1] Quarterly breakdown unaudited

2013 2012

→ *Course of business and economic position*

Group | Business free cash flow by division – 2013

€ million/in %



1	Biopharmaceuticals	1,875.7	58%
2	Consumer Health	83.9	3%
3	Performance Materials	787.8	24%
4	Life Science Tools	493.8	15%

Not presented: Decline in Group business free cash flow by € –281 million due to Corporate and Other

The Biopharmaceuticals division of Merck KGaA, Darmstadt, Germany, generated business free cash flow amounting to € 1,876 million (2012: € 1,880 million), thus raising its contribution to Group business free cash flow to 58% (2012: 57%). This excludes the decline of € –281 million due to Corporate and Other. Performance Materials contributed € 788 million (2012: € 798 million) to Group business free cash flow, which once again represented 24%. Taken together, the Life Science Tools and Consumer Health divisions contributed 18% (2012: 19%) to Group business free cash flow.

Investments in property, plant, equipment and software included in the calculation of business free cash flow as well as advance payments for intangible assets increased in 2013 by 21.7% to a total of € 446 million (2012: € 367 million). In 2013, investments in property, plant and equipment included in this figure amounted to € 408 million (2012: € 329 million), corresponding to an increase of € 79 million or 24.0% compared with 2012. Investments in property, plant and equipment, which totaled € 408 million, included € 248 million in numerous smaller investment projects (total volume of each project below € 2 million). At the beginning of 2013, the Group acquired six office buildings in Darmstadt, which the company had previously leased. The buildings also house the headquarters of the Biopharmaceuticals division. In addition, major projects to expand production were also approved in 2013. Special mention is made here of an investment by the Biopharmaceuticals division in a new production plant in China with a total volume of € 80 million. The new facility will become the Biopharmaceuticals division's second-largest pharmaceutical production site worldwide. Commercial production is scheduled to begin in 2017. In December 2013, work began on a major investment project for the Allergopharma unit in Reinbek near Hamburg. The estimated investment of around € 40 million will, in particular, serve to expand production capacities for products to diagnose and treat type 1 allergies. Within the scope of "Fit for 2018", extensive investment projects to raise efficiency, particularly in the Life Science Tools and Performance Materials divisions were approved that relate to sites in Germany, the United States as well as Ireland and Spain.

In 2013, the two credit rating agencies Moody's and Standard & Poor's upgraded the company's credit rating as an issuer of long-term and senior unsecured bonds. Moody's raised the Group's long-term issuer rating to "A3" with stable outlook, and in May 2013, Standard & Poor's upgraded the Group's rating to "A" with stable outlook. An overview of the development of the Group's rating for the period from 2008 to 2013 is presented in the Report on Risks and Opportunities. Both ratings ensure that the company will be able to benefit in the future from attractive financing terms.

Due to the reduction in debt as well as strong cash flows from operating activities, the ratio of net financial debt to cash flows from operating activities decreased from 0.8 on December 31, 2012 to 0.1 on December 31, 2013.

→ *Course of business and economic position*

In September 2013, the Group increased the volume of its Debt Issuance Program to € 15 billion. The Debt Issuance Program forms the contractual basis for issuing bonds, thus giving the company flexibility in its issuing activities. It therefore represents an important element of the Group's financing activities.

The development of key balance sheet figures is as follows:

Group | Key balance sheet figures

in %		Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Dec. 31, 2009
Equity ratio	Equity / Total assets	53.2	48.1	47.4	46.3	56.9
Asset ratio	Non-current assets / Total assets	64.5	69.4	71.1	74.7	66.9
Asset coverage	Equity / Non-current assets	82.4	69.4	66.7	62.0	85.1
Finance structure	Current liabilities / Liabilities (total)	40.0	40.6	37.5	28.0	39.2

Overall assessment of business performance and economic situation

In 2013, the Group once again performed well in a market environment that remained challenging. The robust organic growth achieved almost fully offset the adverse exchange rate effects that impacted the development of total revenues and sales. The good operating business performance along with the accelerated implementation of the efficiency measures within the scope of the "Fit for 2018" transformation and growth program led to a strong increase in EBITDA pre. The EBITDA pre margin was 30.4% (2012: 27.6%), reflecting the high profitability of the Group. In 2013, the business free cash flow of the Group amounted to € 2,960 million (2012: € 2,969 million), thus reaching the previous year's excellent level.

The solid accounting and finance policy of the Group is reflected by the very good key balance sheet figures, which improved even further in 2013 owing to good business performance. For example, the strong equity ratio of 48.1% in 2012 rose further to 53.2%. Following the sharp reduction in working capital in 2012, another notable improvement was achieved in 2013. Taken together with the successful performance of operating business, this led to a high inflow of funds. Among other things, this cash flow was used to repay financial liabilities, making it possible to lower net financial debt to € 307 million (2012: € 1,926 million).

Against the backdrop of the superb liquidity position and financing base as well as the excellent business development, the economic position of the Group can be assessed positively overall. It offers an ideal starting basis for the further execution of the successfully commenced "Fit for 2018" transformation and growth program, the focus of which is now shifting to organic and inorganic growth. In this connection, special reference is made to the announcement made in December 2013 of the intention to acquire AZ Electronic Materials S.A., Luxembourg, in 2014.

→ *Biopharmaceuticals*

Biopharmaceuticals

Overview of 2013

→ Solid organic sales growth unable to prevent slight decline in sales due to currency headwinds
→ Rebif® achieves stable full-year organic growth despite increasing competition
→ Erbitux® delivers good organic growth thanks to registration in Japan in head and neck cancer indication as well as healthy demand in Emerging Markets
→ Restructuring program within the scope of "Fit for 2018" successfully continued in 2013
→ Significant increase of 2.4 percentage points in EBITDA pre margin despite negative foreign exchange effects and lower royalty income

Biopharmaceuticals | Key figures

€ million	2013	2012	Change in %
Total revenues	6,325.8	6,405.2	–1.2
Sales	5,953.6	5,995.8	–0.7
Operating result (EBIT)	893.0	547.7	63.1
Margin (% of sales)	15.0	9.1	
EBITDA	1,886.5	1,480.0	27.5
Margin (% of sales)	31.7	24.7	
EBITDA pre one-time items	1,955.0	1,824.7	7.1
Margin (% of sales)	32.8	30.4	
Business free cash flow	1,875.7	1,880.2	–0.2

Development of total revenues and sales as well as results of operations

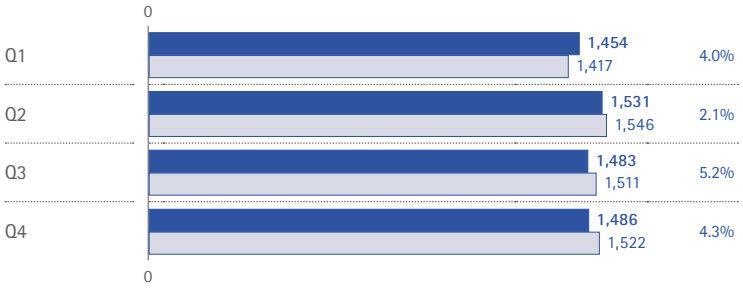
In 2013, total revenues of the Biopharmaceuticals division grew organically by 3.2%. Owing to negative foreign exchange effects amounting to –4.5%, total revenues of the division nevertheless declined by –1.2% to € 6,326 million (2012: € 6,405 million). Despite solid organic growth of 3.9%, sales decreased by –0.7% to € 5,954 million (2012 : € 5,996 million). This slight decline was attributable to strong currency headwinds of –4.6%, which stemmed mainly from Latin American currencies, the Japanese yen as well as the U.S. dollar. All the division's franchises contributed to the organic sales growth, with the highest absolute organic sales increases coming from the General Medicine franchise (including CardioMetabolic Care) and the oncology drug Erbitux®. In geographic terms, the Emerging Markets region and Japan fueled organic sales growth in 2013, posting increases of 12.2% and 16.9%, respectively. Royalty, license and commission income declined by –9.1% to € 372 million (2012: € 409 million). This was primarily the result of the termination of two licensing agreements owing to the expiration of a patent for Avonex® (as of May 2013) and one for Enbrel® (as of November 2013) and adverse foreign exchange effects. The agreement reached with Bristol-Myers Squibb on the co-promotion of Glucophage in China started to positively impact commission income in the third quarter of 2013.

→ *Biopharmaceuticals*

The development of sales in the individual quarters in comparison with 2012 as well as the respective organic growth rates are presented in the following table:

Biopharmaceuticals | Sales and organic growth by quarter[1]

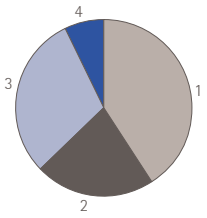
€ million/organic growth in %



[1] Quarterly breakdown unaudited

Biopharmaceuticals | Sales by region – 2013

€ million/% of divisional sales



1	Europe	2,481.8	42%
2	North America	1,279.8	21%
3	Emerging Markets	1,784.6	30%
4	Rest of World	407.4	7%

From a geographic perspective, organic sales growth in the Biopharmaceuticals division was bolstered by the Emerging Markets and Rest of World regions, which generated sales increases of 12.2% and 9.9%, respectively.

Europe, the Group's top-selling region, posted a slight organic decline in sales of –0.1%, with a negative foreign exchange impact of –0.6%, thereby generating sales of € 2,482 million (2012: € 2,502 million). While Russia, Turkey, Germany, and eastern European countries in particular delivered organic sales growth, France as well as countries in southern Europe suffered sales declines. Overall, the division continued to feel the

→ *Biopharmaceuticals*

negative effects of the budget constraints in several European countries as well as the resulting health care cost containment measures. At 42%, Europe continued to account for the largest proportion of the division's sales, as in 2012.

Emerging Markets, the division's second-largest region by sales, posted very strong organic growth of 12.2%, which was offset by a negative foreign exchange impact of –9.5%. Consequently, sales increased from € 1,737 million to € 1,785 million. All of the Biopharmaceuticals division's franchises in this region contributed to organic growth. The main drivers were products to treat cardiovascular diseases, diabetes and thyroid disorders. The share of divisional sales generated by the Emerging Markets region increased by one percentage point to 30%, which reflects the growing importance of this region to the Biopharmaceuticals division.

In 2013, sales in North America amounted to € 1,280 million, declining by –4.1% compared to 2012 (€ 1,335 million), which comprised an organic sales decrease of –1.1% and unfavorable foreign exchange effects of –3.0%. This slight organic decline is primarily attributable to the Fertility franchise. The North America region contributed 21% (2012: 22%) to the division's sales.

In the Rest of World region, sales grew organically by 9.9%, mainly powered by the good sales performance of Erbitux® and strong demand for products from the Fertility franchise. Including strong currency headwinds of –13.4%, which were primarily attributable to the Japanese yen, sales totaled € 407 million (2012: € 422 million). Once again, the Rest of World region contributed 7% to divisional sales.

Biopharmaceuticals | Sales components by region – 2013

€ million/change in %	Sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	2,481.8	–0.1	–0.6	–	–0.8
North America	1,279.8	–1.1	–3.0	–	–4.1
Emerging Markets	1,784.6	12.2	–9.5	–	2.7
Rest of World	407.4	9.9	–13.4	–	–3.5
Biopharmaceuticals	**5,953.6**	**3.9**	**–4.6**	**–**	**–0.7**

In 2013, sales of the key products of the Biopharmaceuticals division developed as follows:

The Group's top-selling drug Rebif®, which is used to treat relapsing forms of multiple sclerosis, achieved slight organic growth of 1.4% in 2013. This was especially attributable to its good performance in the first half of 2013, during which sales grew organically by 4.7%. Yet in the second half of 2013, Rebif® suffered an organic decline in sales, primarily in North America. Taking adverse foreign exchange effects of –2.9% into account, Rebif® sales decreased by –1.5% to € 1,865 million (2012: € 1,893 million). In North America, which generated 51% of Rebif® sales (2012: 52%) and is the largest market for this product, sales saw slight organic growth of 0.3% to € 956 million (2012: € 983 million). In particular, this was the result of a tougher competitive environment in North America in the second half of 2013, where lower sales volumes could not be completely compensated for by price increases. In Europe, sales of Rebif® grew organically by 2.8%, totaling

→ *Biopharmaceuticals*

€ 745 million (2012: € 731 million). Including a foreign exchange impact of –0.9%, sales grew by a total of 1.9%. Consequently, Europe accounted for 40% of total Rebif® sales (2012: 39%). The Emerging Markets and the Rest of World regions posted organic increases in Rebif® sales of 1.1% and 5.4%, respectively, with adverse foreign exchange effects of –11.5% and –5.8%, respectively. Overall, this resulted in Emerging Markets sales declining by –10.4% to € 130 million (2012: € 145 million). In the Rest of World region, the Biopharmaceuticals division generated sales of € 34 million, as in 2012. At around 9%, the combined contribution of these two regions to Rebif® sales remained comparatively low.

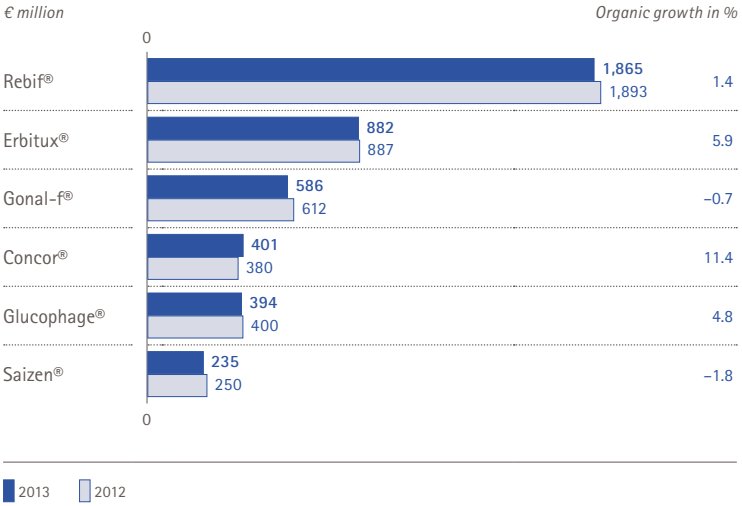
In 2013, sales of the oncology drug Erbitux® showed organic growth of 5.9%. Including a foreign exchange impact of –6.5%, which primarily stemmed from the Japanese yen and Latin American currencies, sales declined slightly by € –5 million to € 882 million (2012: € 887 million). The Biopharmaceuticals division achieved organic growth in all three regions in which it holds the marketing rights. In 2013, 57% of Erbitux® sales were generated in Europe (2012: 56%), making it the top-selling region for this product. Erbitux® sales in this region grew organically by 0.5% in 2013, thereby totaling € 501 million, which includes adverse foreign exchange effects of –0.4% (2012: € 500 million). Despite strong organic growth of 8.9%, sales in Emerging Markets declined slightly to € 232 million (2012: € 236 million) as a result of currency headwinds of –10.3%. This region contributed 26% (2012: 27%) of total Erbitux® sales. At 18.8%, the Rest of World region generated the strongest organic growth for this oncology drug, delivering sales of € 149 million (2012: € 152 million). Posting organic growth of 22.1%, business in Japan performed well. However, this was canceled out by adverse exchange rate effects stemming from the weak Japanese yen against the euro. In particular, the approval of Erbitux® in head and neck cancer as well as higher market shares in other Erbitux® indications were the main drivers of the increase in organic sales.

Biopharmaceuticals | Sales and organic growth of Rebif® and Erbitux® by region – 2013

		Total	Europe	North America	Emerging Markets	Rest of World
Rebif®	€ million	1,864.7	744.8	956.1	130.2	33.6
	Organic growth in %	1.4	2.8	0.3	1.1	5.4
	% of sales	100	40	51	7	2
Erbitux®	€ million	882.2	500.9	–	232.4	148.9
	Organic growth in %	5.9	0.5	–	8.9	18.8
	% of sales	100	57	–	26	17

→ *Biopharmaceuticals*

Biopharmaceuticals | Sales and organic growth of key products – 2013



Sales of Gonal-f®, the leading recombinant hormone used in the treatment of infertility, totaled € 586 million in 2013 (2012: € 612 million). This decline was largely attributable to adverse foreign exchange effects of –3.5%. Gonal-f® sales saw a slight organic decrease of –0.7%. Strong organic growth in the Emerging Markets and Rest of World regions could not offset the weaker sales performance in Europe and North America, where the correlation between economic developments and the demand for fertility products remained visible. However, other products from the Fertility franchise achieved strong organic growth, thereby generating total organic sales growth of 2.4% for the franchise and, including adverse foreign exchange effects, sales of € 807 million (2012: € 817 million).

At € 394 million (2012: € 399 million), sales by the Endocrinology franchise, which mainly consists of products to treat metabolic and growth disorders, decreased slightly by –1.3% since organic growth of 2.1% was more than offset by an adverse foreign exchange impact of –3.4%. Sales of the growth hormone Saizen® saw an organic decline of –1.8% as well as negative foreign exchange effects of –4.0%. As a result, sales declined by a total of –5.8% to € 235 million. The Biopharmaceuticals division achieved double-digit organic growth rates with Serostim® for HIV-associated wasting, as well as with Kuvan® for the treatment of hyperphenylalaninemia, a metabolic disorder.

→ *Biopharmaceuticals*

The General Medicine franchise (including CardioMetabolic Care), which commercializes the Biopharmaceuticals division's products to treat cardiovascular diseases and diabetes, among others, generated organic sales growth of 6.5%. Including negative foreign exchange effects, sales amounted to € 2,005 million (2012: € 1,998 million). Overall, sales volumes in this business franchise developed well. This reflected the performance of the three leading product franchises, namely Glucophage® for the treatment of diabetes, the beta-blocker Concor®, and the Group's portfolio for the treatment of thyroid disorders, all of which achieved high organic growth rates. However, negative exchange rate effects were registered here as well. Sales of Glucophage®, which grew organically by 4.8% primarily due to sales in the Emerging Markets region, totaled € 394 million (2012: € 399 million). Thanks mainly to strong demand in Emerging Markets and Europe, Concor® and thyroid products generated organic growth of 11.4% and 21.0%, respectively, posting sales of € 401 million (2012: € 380 million) and € 275 million, respectively (2012: € 234 million).

At € 1,106 million, the division's cost of sales declined by –7.3% (2012: € 1,193 million), with the decline exceeding the percentage decrease in sales. This was primarily due to higher yields in the manufacture of biotech products as well as strict cost control, which had a positive effect on the division's gross profit. Overall, however, gross profit improved only slightly by € 8 million to € 5,220 million (2012: € 5,212 million) as it was countered by the € 37 million decline in royalty, license and commission income. Accordingly, gross margin (in percent of sales) rose slightly to 87.7% (2012: 86.9%).

Both the resolute implementation of cost reduction measures and currency translation effects lowered the division's marketing and selling expenses as well as administration expenses. Marketing and selling expenses fell by –6.0% to € 1,289 million (2012: € 1,371 million) and administration expenses decreased by –2.5% to € 211 million (2012: € 217 million). In 2013, royalty, license and commission expenses totaled € 548 million (2012: € 562 million). This slight decline was primarily the result of currency translation effects as well as lower Rebif® co-marketing expenses in the United States. The significant decrease in other operating expenses (net) from € 669 million in 2012 to € 499 million in 2013 was largely due to the one-time items reported in this line. Whereas in 2012, one-time items (including impairments) amounted to € 391 million and were mainly incurred in connection with "Fit for 2018", one-time items (including impairments) in 2013 were only € 258 million. In 2013, other operating expenses included an impairment loss on intangible assets classified as a one-time item, of € 127 million, for Humira® in the Biopharmaceuticals division. The impairment loss resulted from an out-of-court settlement with AbbVie Biotechnology Ltd., Bermudas, and Abbott GmbH & Co. KG, Germany (together referred to as "AbbVie"). Under this settlement, Merck KGaA, Darmstadt, Germany, will receive no further royalty payments for this product from AbbVie as of the second half of 2014.

Research and development expenses were only slightly lower than in 2012, totaling € 1,183 million (2012: € 1,187 million). The ratio of R&D spending to sales thus remained at a high level of 19.9% (2012: 19.8%). The long-term development of the Biopharmaceuticals division and the pipeline continues to be a top priority.

Since the useful lives of the two intangible assets capitalized as part of the Serono SA purchase price allocation, namely Avonex® and Enbrel®, have expired, amortization of intangible assets declined significantly by –9.5% to € 597 million (2012: € 659 million).

→ *Biopharmaceuticals*

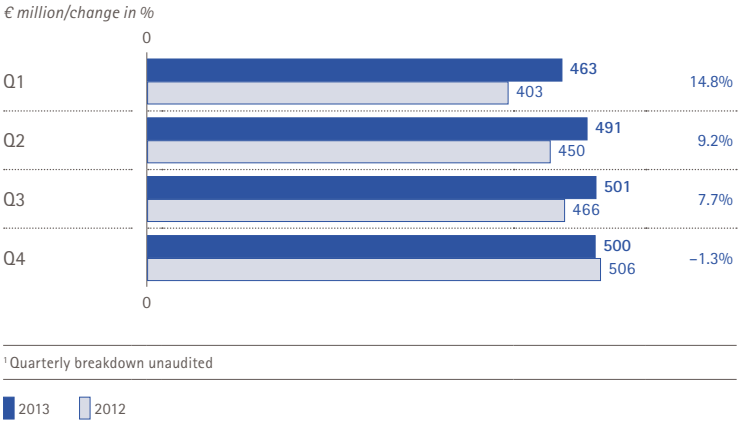
The presented development of income and expenses resulted in a very sharp increase in the division's operating result (EBIT) in 2013, of 63.1% to € 893 million (2012: € 548 million). After eliminating depreciation and amortization, and adjusted for one-time effects, EBITDA pre one-time items rose by 7.1% to € 1,955 million (2012: € 1,825 million), corresponding to a margin of 32.8% of sales (2012: 30.4%).

Biopharmaceuticals | Reconciliation EBIT to EBITDA pre one-time items

€ million	2013	2012	Change in %
Operating result (EBIT)	**893.0**	**547.7**	**63.1**
Depreciation/Amortization/Reversals of impairments	993.5	932.3	6.6
EBITDA	**1,886.5**	**1,480.0**	**27.5**
One-time items	68.5	344.7	–80.1
EBITDA pre one-time items	**1,955.0**	**1,824.7**	**7.1**

The development of EBITDA pre one-time items in the individual quarters in comparison with 2012 is presented in the following table:

Biopharmaceuticals | EBITDA pre one-time items and change by quarter[1]



[1] Quarterly breakdown unaudited

→ *Biopharmaceuticals*

Development of business free cash flow

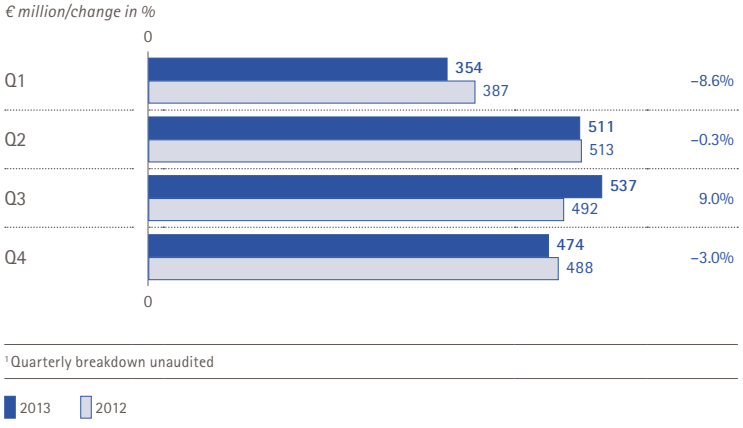
In 2013, the Biopharmaceuticals division's business free cash flow amounted to € 1,876 million, which represents only a slight decline compared with the very high level of € 1,880 million in 2012. The increase in EBITDA pre one-time items by € 130 million, or 7.1%, positively affected the business free cash flow. However, the changes in trade accounts receivable achieved in 2012 could not be reached in 2012. In 2013, receivables declined by only € –43 million, whereas in 2012 this balance sheet item was significantly reduced by € –180 million.

Biopharmaceuticals | Business free cash flow

€ million	2013	2012	Change in %
EBITDA pre one-time items	1,955.0	1,824.7	7.1
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–164.3	–160.5	2.4
Changes in inventories	41.7	35.8	16.3
Changes in trade accounts receivable	43.3	180.2	–75.9
Business free cash flow	**1,875.7**	**1,880.2**	**–0.2**

The development of business free cash flow in the individual quarters in comparison with 2012 is presented in the following table:

Biopharmaceuticals | Business free cash flow and change by quarter[1]



[1] Quarterly breakdown unaudited

Consumer Health

Overview of 2013

→ Successful turnaround achieved in 2013
→ EBITDA pre one-time items increases by 8.5% to € 72 million following the implementation of efficiency measures
→ EBITDA pre margin moves toward industry average thanks to profitability improvements
→ Solid base for development in future years established

Consumer Health | Key figures

€ million	2013	2012	Change in %
Total revenues	479.6	475.2	0.9
Sales	476.9	472.6	0.9
Operating result (EBIT)	62.2	7.6	–
Margin (% of sales)	13.0	1.6	
EBITDA	71.1	29.8	138.6
Margin (% of sales)	14.9	6.3	
EBITDA pre one-time items	72.5	66.8	8.5
Margin (% of sales)	15.2	14.1	
Business free cash flow	83.9	88.8	–5.5

Development of total revenues and sales as well as results of operations

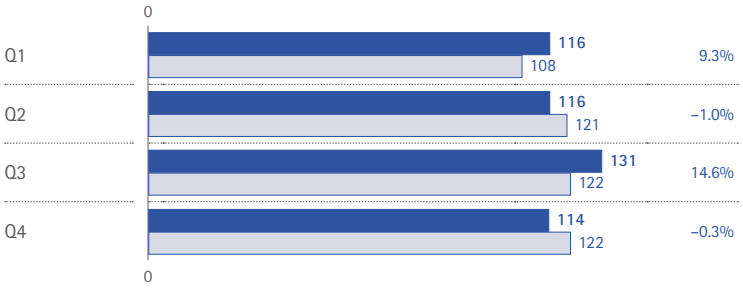
In 2013, the Consumer Health division of Merck KGaA, Darmstadt, Germany, reported a slight 0.9% increase in sales to € 477 million (2012: € 473 million). Strong organic growth of 5.6% was countered by a negative foreign exchange impact of –4.7%. Europe and Emerging Markets, the two largest regions in terms of sales, were the main drivers of the strong organic increases and the division's overall positive development. Four of the eight strategic brands (Cebion®, Sangobion®, Kytta® and Femibion®) delivered double-digit organic growth rates and gained market share in the division's key regions while the Bion®, Nasivin® and Sedalmex® brands all posted growth rates in the mid-to-high single digits. The negative foreign exchange impact was broad-based, but particularly strong with respect to Latin American currencies, the British pound, the Indonesian rupiah, and the South African rand.

→ *Consumer Health*

The development of sales in the individual quarters in comparison with 2012 as well as the respective organic growth rates are presented in the following table:

Consumer Health | Sales and organic growth by quarter [1]

€ million/organic growth in %

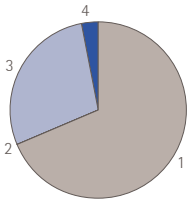


[1] Quarterly breakdown unaudited

2013 2012

Consumer Health | Sales by region – 2013

€ million/% of divisional sales



1	Europe	328.1	69%
2	North America	1.1	0%
3	Emerging Markets	131.9	28%
4	Rest of World	15.8	3%

From a geographic perspective, all of the division's key regions delivered strong organic sales growth while suffering from negative foreign exchange effects. Europe, which accounts for 69% of sales (2012: 67%) and is the division's largest region, posted organic sales growth of 5.0% lowered by a foreign exchange impact of –0.9%. The resulting 4.1% growth in this region thus generated sales of € 328 million (2012: € 315 million). Notable organic sales increases were achieved particularly in Germany, France and Russia, more than offsetting the weaker performance of the British subsidiary Seven Seas. In Germany, robust demand for Femibion® as well as the market launch of an odorless version of Kytta® had a visibly positive effect. France benefited in particular from the market launch of Bion® Energie Continue as well as from very good demand for cough and cold treatments in early 2013. Russia achieved strong growth with Nasivin® and Femibion®.

→ *Consumer Health*

In the Emerging Markets region, the division registered strong organic growth of 6.9%, which was mainly attributable to Cebion®, Sangobion®, Bion®3 and Nasivin®. Taking substantial foreign exchange headwinds of –12.3% into account, sales declined overall by –5.3% to € 132 million (2012: € 139 million). Good organic sales growth was achieved, for example, in India, Indonesia and Brazil. The share of divisional sales accounted for by the Emerging Markets region declined to 28% (2012: 29%), owing to negative foreign exchange effects that stemmed mainly from Latin American currencies.

With organic sales growth of 5.7% and significant currency headwinds of –12.2%, the Rest of World region generated sales of € 16 million (2012: € 17 million). The proportion of divisional sales accounted for by this region therefore also declined to 3% (2012: 4%).

Consumer Health | Sales components by region – 2013

€ million/change in %	Sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	328.1	5.0	–0.9	–	4.1
North America	1.1	–1.1	–0.8	–	–1.9
Emerging Markets	131.9	6.9	–12.3	–	–5.3
Rest of World	15.8	5.7	–12.2	–	–6.5
Consumer Health	**476.9**	**5.6**	**–4.7**	**–**	**0.9**

Cost of sales increased slightly by 1.9%, totaling € 161 million in 2013 (2012: € 158 million). Gross profit amounted to € 318 million (2012: € 317 million), remaining at the previous year's level and leading to a gross margin of 66.7% (2012: 67.0%).

Marketing and selling expenses declined by –2.5% to € 213 million (2012: € 218 million) since activities directed to consumers, pharmacies and health care professionals were focused on higher-return opportunities. Administration expenses dropped by –8.7% to € 18 million (2012: € 20 million) and R&D expenses fell by –12.2% to € 17 million (2012: € 19 million) as the division continued to sharpen the focus of its R&D activities.

The net decline in other operating expenses to € 4 million (2012: € 46 million) was due mainly to the drop in one-time items to € 1 million (2012: € 37 million). Furthermore, impairments of property, plant and equipment as well as intangible assets, which totaled € 11 million in 2012, did not reoccur in 2013. The high level of one-time items in 2012 was attributable to the restructuring measures within the scope of the "Fit for 2018" transformation and growth program.

The reported operating result (EBIT) of the Consumer Health division increased by around € 54 million to € 62 million (2012: € 8 million) and EBITDA more than doubled, climbing to € 71 million (2012: € 30 million). Adjusted for one-time items, EBITDA pre one-time items rose by 8.5% to € 72 million, or 15.2% of sales (2012: € 67 million or 14.1% of sales).

→ *Consumer Health*

The implementation of the measures initiated as part of the "Fit for 2018" transformation and growth program as well as better resource allocation improved the division's cost structure, leading to a visible increase in profitability and the aforementioned organic top-line growth. In particular, the division's strategic brands, which benefited most from more focused investment in marketing, sales and R&D activities, showed a strong improvement in this respect.

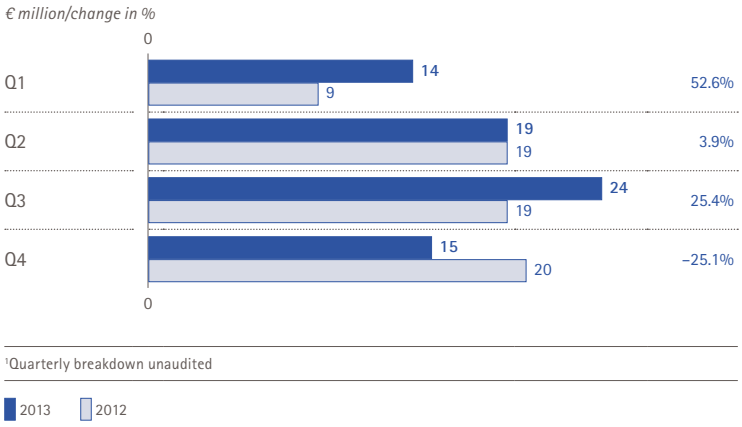
Structural adaptations, for example changes to the product portfolio and the exit from unprofitable markets, also resulted in a more profitable base for the division's business. Consumer Health thus established a good foundation and achieved a high profitability level, which should form a solid starting base for developments in the coming years.

Consumer Health | Reconciliation EBIT to EBITDA pre one-time items

€ million	2013	2012	Change in %
Operating result (EBIT)	**62.2**	**7.6**	**–**
Depreciation/Amortization/Reversals of impairments	8.9	22.2	–59.9
EBITDA	**71.1**	**29.8**	**138.6**
One-time items	1.4	37.0	–96.2
EBITDA pre one-time items	**72.5**	**66.8**	**8.5**

The development of EBITDA pre one-time items in the individual quarters in comparison with 2012 is presented in the following table:

Consumer Health | EBITDA pre one-time items and change by quarter[1]



[1]Quarterly breakdown unaudited

→ *Consumer Health*

Development of business free cash flow

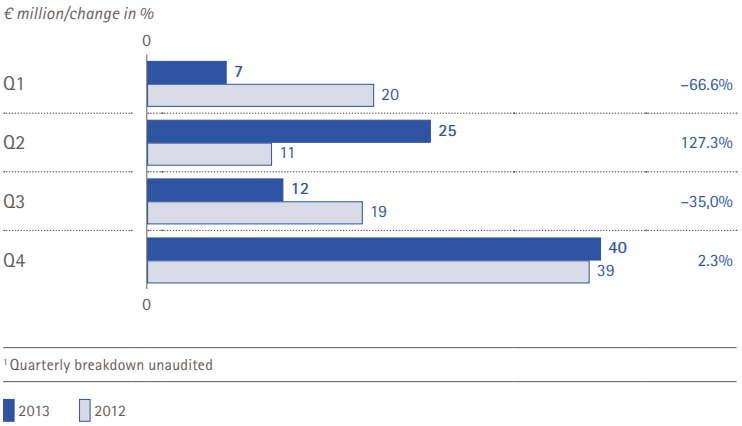
In 2013, business free cash flow of the Consumer Health division of Merck KGaA, Darmstadt, Germany declined by € –5 million or –5.5% to € 84 million (2012: € 89 million). This decrease was primarily due to changes in trade accounts receivable. The reduction in this balance sheet item by € –13 million in 2013 compares with an even higher reduction of € –23 million in 2012. The increase in EBITDA pre one-time items mitigated this impact on business free cash flow.

Consumer Health | Business free cash flow

€ million	2013	2012	Change in %
EBITDA pre one-time items	72.5	66.8	8.5
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–4.1	–4.4	–7.7
Changes in inventories	2.1	3.2	–33.7
Changes in trade accounts receivable	13.4	23.2	–42.2
Business free cash flow	**83.9**	**88.8**	**–5.5**

The development of business free cash flow in the individual quarters in comparison with 2012 is presented in the following table:

Consumer Health | Business free cash flow and change by quarter[1]



[1] Quarterly breakdown unaudited

Performance Materials

Overview of 2013

→ Slight decline in sales due to strong currency headwinds that outweighed organic growth
→ Strong market position of the Liquid Crystals business unit confirmed due to further development of existing products and high degree of innovation
→ Trend toward larger and higher-resolution television displays has a positive impact on the product mix of Liquid Crystals
→ EBITDA pre margin rises sharply by more than three percentage points due to structural improvements in the Pigments & Cosmetics business unit and a favorable product mix in Liquid Crystals

Performance Materials | Key figures

€ million	2013	2012	Change in %
Total revenues	1,644.4	1,675.6	–1.9
Sales	1,642.1	1,674.2	–1.9
Operating result (EBIT)	653.3	609.7	7.2
Margin (% of sales)	39.8	36.4	
EBITDA	765.8	734.6	4.3
Margin (% of sales)	46.6	43.9	
EBITDA pre one-time items	779.7	741.9	5.1
Margin (% of sales)	47.5	44.3	
Business free cash flow	787.8	798.1	–1.3

Development of total revenues and sales as well as results of operations

For the Performance Materials division of Merck KGaA, Darmstadt, Germany, 2013 was another very successful year. In comparison with 2012, a record year, sales increased organically by a further 3.0%. Taking into account currency headwinds of –4.9%, divisional sales decreased by –1.9% to € 1,642 million (2012: € 1,674 million), thus remaining at a high level. The adverse foreign exchange impact stemmed mainly from the Japanese yen, the Taiwanese dollar and the U.S. dollar.

The Liquid Crystals business unit, which accounts for more than 70% of divisional sales, increased its high market share, thus defending its market leadership in liquid crystal materials by continuously improving its flagship technologies. The Liquid Crystals business unit benefited from the shift in demand toward technically more complex liquid crystals. These include materials based on polymer-stabilized vertical alignment (PS-VA) technology, which are primarily used in large-sized, high-quality television displays.

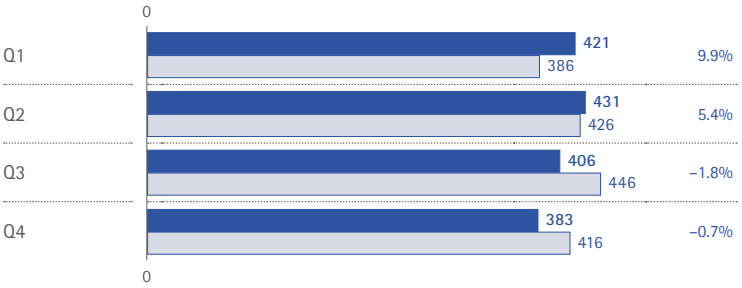
In 2013, the Pigments & Cosmetics business unit achieved good organic sales growth thanks to higher demand for decorative pigments, above all the Xirallic® product family, which is used in particular in automotive coatings. The business unit recorded a slight increase in organic sales of functional materials.

→ *Performance Materials*

The development of sales in the individual quarters in comparison with 2012 as well as the respective organic growth rates are presented in the following table:

Performance Materials | Sales and organic growth by quarter[1]

€ million/organic growth in %

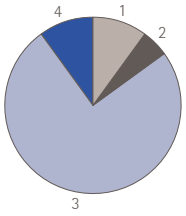


[1] Quarterly breakdown unaudited

2013 2012

Performance Materials | Sales by region – 2013

€ million/% of divisional sales



1	Europe	164.3	10%
2	North America	85.6	5%
3	Emerging Markets	1,236.6	75%
4	Rest of World	155.6	10%

In geographic terms, the Emerging Markets region accounted for 75% (2012: 73%) of sales by the Performance Materials division of Merck KGaA, Darmstadt, Germany. This two percentage-point increase was attributable to good organic sales growth of 4.9%. The high share of sales generated by this region is due to the concentration of liquid crystal customers in Asia. Including a negative foreign exchange impact of –3.4%, sales increased by 1.5% to € 1,237 million (2012: € 1,218 million).

With sales of € 164 million (2012: € 160 million, Europe generated 10% (2012: 10%) of divisional sales. Organic growth of 2.9% was achieved with both decorative pigments and functional materials.

The Rest of World region, which is dominated by Japan, recorded an organic sales decrease of –6.2%. Along with strong currency headwinds of –18.3%, this resulted in sales of € 156 million (2012: € 206 million). The Rest of World region's share of sales declined from 12% in 2012 to 10% in 2013.

→ *Performance Materials*

The North America region, where almost all sales are attributable to the Pigments & Cosmetics business unit, contributed 5% to divisional sales (2012: 5%). Including the negative foreign exchange impact, the slight decline in organic sales of –1.6% led to a total decline in sales of –4.4% to € 86 million (2012: € 90 million). The Xirallic® pigments business achieved high organic sales increases that could not compensate, however, for the weak demand for cosmetic active ingredients.

Performance Materials | Sales components by region – 2013

€ million/change in %	Sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	164.3	2.9	–0.4	–	2.5
North America	85.6	–1.6	–2.7	–	–4.4
Emerging Markets	1,236.6	4.9	–3.4	–	1.5
Rest of World	155.6	–6.2	–18.3	–	–24.5
Performance Materials	**1,642.1**	**3.0**	**–4.9**	**–**	**–1.9**

In 2013, the division's cost of sales decreased by –14% to € 616 million (2012: € 716 million). This decline was primarily attributable to a more favorable product mix in liquid crystal materials as well as to efficiency improvements in the Pigments & Cosmetics business unit achieved within the scope of the "Fit for 2018" transformation and growth program. In comparison with 2012, gross profit thus grew by 7.2% to € 1,028 million (2012: € 959 million). This led to a significantly higher gross margin as a percentage of sales, which rose by more than five percentage points to 62.6% (2012: 57.3%).

Marketing and selling expenses declined slightly by –1.6% to € 141 million (2012: € 143 million), and administration expenses dropped by –10.7% to € 28 million (2012: € 31 million). R&D expenses rose by 4.1% to € 143 million (2012: € 137 million). The Liquid Crystals business unit, which maintained its market position thanks to innovations and the further development of existing technologies, accounted for the vast majority of research and development spending. As a percentage of sales, R&D expenses therefore increased to 8.7% (2012: 8.2%). In 2013, the net rise in other operating expenses to € 48 million (2012: € 32 million) was mainly due to the disposal of intangible assets as well as to an increase in one-time items.

The aforementioned development of income and expenses led to a 7.2% increase in the reported operating result (EBIT) to € 653 million (2012: € 610 million). Without the depreciation and amortization included in EBIT, EBITDA rose by 4.3% to € 766 million (2012: € 735 million). Adjusted for one-time effects, EBITDA pre one-time items rose by 5.1% to € 780 million (2012: € 742 million). Despite negative foreign exchange effects,

→ *Performance Materials*

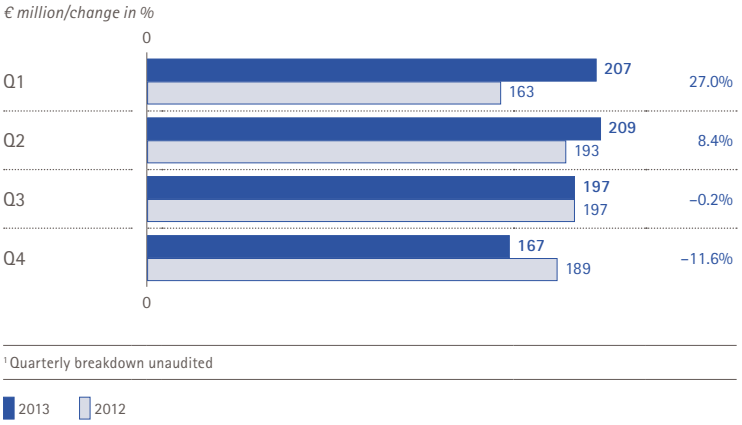
the division's profitability, i.e. the EBITDA pre margin, rose to 47.5% of sales (2012: 44.3% of sales). This profitability increase of more than three percentage points was primarily attributable to changes in the product mix of the Liquid Crystals business unit; it was also the result of cost structure improvements in the Pigments & Cosmetics business unit achieved through efficiency measures under the "Fit for 2018" transformation and growth program.

Performance Materials | Reconciliation EBIT to EBITDA pre one-time items

€ million	2013	2012	Change in %
Operating result (EBIT)	**653.3**	**609.7**	**7.2**
Depreciation/Amortization/Reversals of impairments	112.5	124.9	–9.9
EBITDA	**765.8**	**734.6**	**4.3**
One-time items	13.9	7.3	90.4
EBITDA pre one-time items	**779.7**	**741.9**	**5.1**

The development of EBITDA pre one-time items in the individual quarters in comparison with 2012 is presented in the following table :

Performance Materials | EBITDA pre one-time items and change by quarter[1]



[1] Quarterly breakdown unaudited

→ *Performance Materials*

Development of business free cash flow

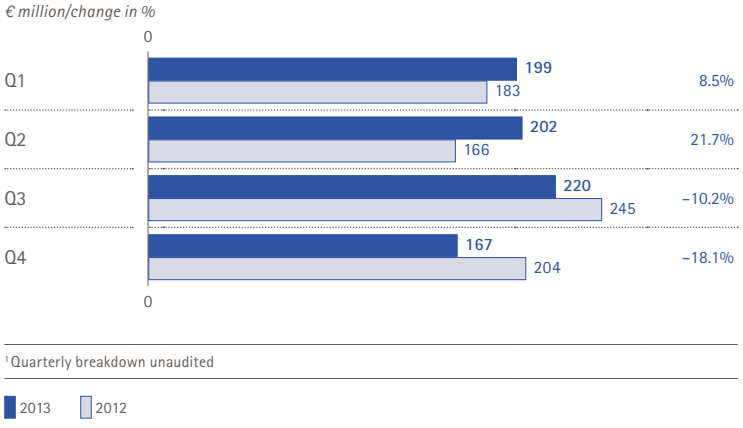
In 2013, the Performance Materials division of Merck KGaA, Darmstadt, Germany, generated business free cash flow of € 788 million (2012: € 798 million). Despite a € 38 million increase in EBITDA pre one-time items and the decrease in trade accounts receivable, business free cash flow declined slightly by –1.3% due to higher capital spending and a smaller reduction in working capital. Although the two relevant balance sheet items were further reduced by € –80 million in 2013, this total nevertheless fell short of the exceptionally high reduction of € –114 million achieved in 2012.

Performance Materials | Business free cash flow

€ million	2013	2012	Change in %
EBITDA pre one-time items	779.7	741.9	5.1
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–71.7	–57.9	23.8
Changes in inventories	37.2	117.9	–68.4
Changes in trade accounts receivable	42.6	–3.8	–
Business free cash flow	**787.8**	**798.1**	**–1.3**

The development of business free cash flow in the individual quarters in comparison with 2012 is presented in the following table:

Performance Materials | Business free cash flow and change by quarter[1]



[1] Quarterly breakdown unaudited

Life Science Tools

Overview of 2013

→ Robust portfolio and solid organic growth counterbalance difficult market environment and negative foreign exchange effects
→ All business units contribute to organic growth, especially in Emerging Markets
→ Profitability increases by approximately one percentage point owing to strong business performance and strict cost control

Life Science Tools | Key figures

€ million	2013	2012	Change in %
Total revenues	2,645.3	2,616.9	1.1
Sales	2,627.5	2,598.2	1.1
Operating result (EBIT)	262.0	251.7	4.1
Margin (% of sales)	10.0	9.7	
EBITDA	589.8	560.9	5.2
Margin (% of sales)	22.4	21.6	
EBITDA pre one-time items	642.8	614.4	4.6
Margin (% of sales)	24.5	23.6	
Business free cash flow	493.8	511.3	–3.4

Development of total revenues and sales as well as results of operations

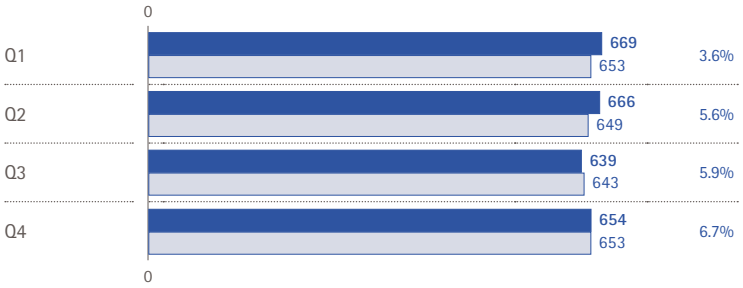
In 2013, the Life Science Tools division of Merck KGaA, Darmstadt, Germany, generated strong organic sales growth of 5.5% despite a challenging market environment. Biochrom AG, Berlin, which was acquired in 2012, contributed 0.5% to the increase in sales in 2013. Taking into account a negative foreign exchange impact of –4.8%, divisional sales increased by 1.1% to € 2,628 million (2012: € 2,598 million). Currency headwinds stemmed mainly from the Japanese yen, the U.S. dollar, and the Indian rupee. At € 18 million, the royalty, license and commission income recorded by the Bioscience and Process Solutions business units remained at the previous year's level.

→ *Life Science Tools*

The development of sales in the individual quarters in comparison with 2012 as well as the respective organic growth rates are presented in the following table:

Life Science Tools | Sales and organic growth by quarter[1]

€ million/organic growth in %

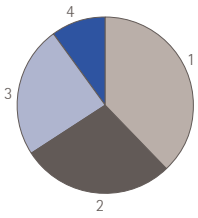


[1] Quarterly breakdown unaudited

2013 2012

Life Science Tools | Sales by region – 2013

€ million/% of divisional sales



1	Europe	1,010.5	39%
2	North America	711.5	27%
3	Emerging Markets	642.4	24%
4	Rest of World	263.1	10%

In 2013, the Life Science Tools division achieved positive organic growth rates in all regions. However, negative foreign exchange effects were registered in all regions as well.

As the division's largest geographic market accounting for 39% of divisional sales (2012: 37%), Europe generated sales of € 1,010 million (2012: € 966 million), representing organic sales growth of 4.2%. The rise in sales was driven by all three business units: Process Solutions, Lab Solutions and Bioscience.

→ *Life Science Tools*

In North America, sales grew organically by 4.1%, largely offset by negative foreign exchange effects. Reported growth was 1.2%, which represents an increase in sales to € 711 million (2012: € 703 million). The organic increase in sales in this region mainly came from products from the Process Solutions and Lab Solutions business units, offsetting weaker demand for laboratory materials from the Bioscience business unit.

The Emerging Markets region registered organic sales growth of 10.5% and a negative foreign exchange impact of –6.6%. Including acquisition effects of 0.1%, sales rose to € 642 million (2012: € 617 million). The strong organic sales development was fueled by good demand for products from all the division's business units. The share of divisional sales generated by the Emerging Markets region remained at the previous year's level of 24%.

As a result of significant currency headwinds of –18.2%, especially relative to the Japanese yen, sales in the Rest of World region declined to € 263 million (2012: € 312 million). With slight organic growth of 2.4%, this region's share of divisional sales declined to 10% (2012: 12%).

Life Science Tools | Sales components by region – 2013

€ million/change in %	Sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	1,010.5	4.2	–0.7	1.2	4.6
North America	711.5	4.1	–2.9	–	1.2
Emerging Markets	642.4	10.5	–6.6	0.1	4.1
Rest of World	263.1	2.4	–18.2	–	–15.8
Life Science Tools	**2,627.5**	**5.5**	**–4.8**	**0.5**	**1.1**

All three business units contributed to the organic growth of the division in 2013. In particular, Lab Solutions and Process Solutions, the two top-selling business units, generated good growth rates owing to price increases and higher sales volumes. Lab Solutions, which accounted for an unchanged 42% share of divisional sales, delivered good organic sales growth of 5.4% with its broad range of products for researchers and scientific laboratories. However, negative foreign exchange effects of – 5.4% completely canceled out this growth. The business unit's sales thus remained on par with 2012, amounting to € 1,097 million. Organic growth was mainly driven by elevated demand for biomonitoring solutions, particularly from customers in the pharmaceutical industry, as well as by price increases.

→ *Life Science Tools*

The Process Solutions business unit, which markets products and services for the pharmaceutical production value chain, generated organic sales growth of 7.7%, which was the highest rate within the Life Science Tools division of Merck KGaA, Darmstadt, Germany. Taking into account a negative foreign exchange effect of –4.1% as well as the increase in sales of 1.1% due to the acquisition of Biochrom AG, sales amounted to € 1,096 million in 2013 (2012: € 1,046 million). Process Solutions thus accounted for 42% of divisional sales (2012: 40%). The increase was driven by higher demand from the pharmaceutical industry for products used in biopharmaceutical manufacturing, especially in Asia and the United States.

The Bioscience business unit, which primarily markets products and services for pharmaceutical, biotechnology and academic research laboratories, recorded a slight increase in organic sales of 0.3%. Including an adverse foreign exchange impact of –4.8%, sales amounted to € 434 million (2012: € 455 million). In particular, across-the-board health care spending cuts in the United States softened demand. The share of divisional sales accounted for by Bioscience in 2013 was 16% (2012: 18%).

Life Science Tools | Sales components by business unit – 2013

€ million/change in %	Sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Bioscience	434.2	0.3	–4.8	–	–4.5
Lab Solutions	1,097.4	5.4	–5.4	–	–
Process Solutions	1,095.9	7.7	–4.1	1.1	4.8

In 2013, cost of sales amounted to € 1,104 million (2012: € 1,086 million) and rose by 1.7% compared with 2012. Nevertheless, this yielded a slightly higher gross profit of € 1,541 million (2012: € 1,531 million). Despite negative foreign exchange effects, gross margin, as a percentage of sales, remained virtually unchanged at 58.6% (2012: 58.9%).

Marketing and selling expenses increased by 1.1% to € 683 million (2012: € 676 million). In 2013, the division recorded a decline of –2.1% in administration expenses to € 99 million (2012: € 101 million). The net increase in other operating expenses from € 117 million to € 121 million was mainly due to one-time items (including impairments) of € 70 million (2012: € 54 million).

The Life Science Tools division's R&D expenses fell as a result of foreign exchange effects, among other things, to € 160 million (2012: € 166 million). In 2013, the ratio of R&D spending to sales was therefore 6.1% (2012: 6.4%). In order to ensure a steady stream of product innovations, R&D expenses will remain at a high level going forward. The Process Solutions business unit accounts for the vast majority of the R&D budget.

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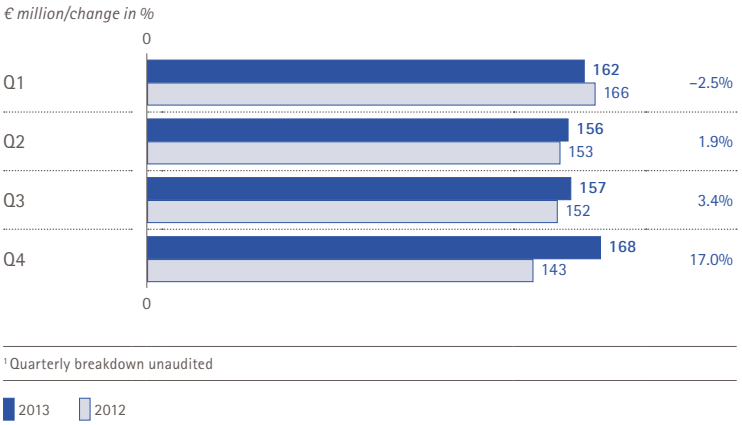
Currency translation effects were mainly responsible for the decline in amortization of intangible assets from € 204 million to € 200 million. Including these effects, the division's operating result (EBIT) rose by 4.1% to € 262 million (2012: € 252 million). After eliminating depreciation and amortization, EBITDA rose by 5.2% to € 590 million (2012: € 561 million). Adjusted for one-time charges, EBITDA pre rose by 4.6% to € 643 million, or 24.5% of sales (2012: € 614 million, 23.6% of sales). Despite unfavorable foreign exchange developments and the difficult market situation in North America, the Life Science Tools division increased its EBITDA pre margin, reflecting strong organic growth, a resilient portfolio, and strict cost control.

Life Science Tools | Reconciliation EBIT to EBITDA pre one-time items

€ million	2013	2012	Change in %
Operating result (EBIT)	**262.0**	**251.7**	**4.1**
Depreciation/Amortization/Reversals of impairments	327.8	309.2	6.0
EBITDA	**589.8**	**560.9**	**5.2**
One-time items	53.0	53.5	–0.9
EBITDA pre one-time items	**642.8**	**614.4**	**4.6**

The development of EBITDA pre one-time items in the individual quarters in comparison with 2012 is presented in the following table:

Life Science Tools | EBITDA pre one-time items and change by quarter[1]



[1] Quarterly breakdown unaudited

→ *Life Science Tools*

Development of business free cash flow

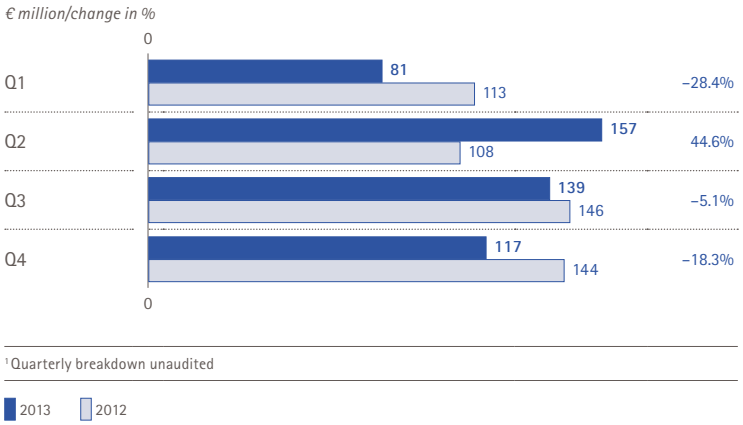
In 2013, the Life Science Tools division of Merck KGaA, Darmstadt, Germany, generated business free cash flow of € 494 million (2012: € 511 million). The –3.4% decline was largely due to the change in working capital. Whereas the total decrease of € –15 million in working capital had a positive impact on business free cash flow in 2012, the increase in the relevant balance sheet items by € 27 million in 2013 lowered this key figure accordingly. This effect was partially offset by the increase in EBITDA pre one-time items.

Life Science Tools | Business free cash flow

€ million	2013	2012	Change in %
EBITDA pre one-time items	642.8	614.4	4.6
Investments in property, plant and equipment, software as well as advance payments for intangible assets	–121.7	–118.0	3.1
Changes in inventories	–21.3	0.2	–
Changes in trade accounts receivable	–6.0	14.7	–
Business free cash flow	**493.8**	**511.3**	**–3.4**

The development of business free cash flow in the individual quarters in comparison with 2012 is presented in the following table:

Life Science Tools | Business free cash flow and change by quarter[1]



[1] Quarterly breakdown unaudited

Corporate and Other

Corporate and Other comprises Group administration expenses for Group functions that cannot be directly allocated to the divisions, 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 Group. Accordingly, Corporate and Other has no sales to report. Gains or losses on currency hedging are also disclosed in Corporate and Other.

Corporate and Other | Key figures

€ million	2013	2012	Change in %
Operating result (EBIT)	–259.7	–453.1	–42.7
EBITDA	–244.0	–445.1	–45.2
EBITDA pre one-time items	–196.7	–282.9	–30.5
Business free cash flow	–281.2	–309.1	–9.0

In 2013, administration expenses recorded under Corporate and Other increased to € 206 million (2012: € 183 million). "Other operating income and expenses" showed net expenses of € 47 million (2012: € 262 million) for Corporate and Other. The sharp decline in net expenses compared with 2012 was mainly attributable to one-time items as well as to the foreign currency result from operating activities. Expenses classified as one-time items amounted to € 47 million in 2013 (2012: € 162 million). The significant decrease in comparison with 2012 resulted mainly from the reduced restructuring charges for the "Fit for 2018" transformation and growth program as well as from gains/losses from businesses already divested. In 2013, the foreign currency result showed income of € 32 million, whereas a loss of € –58 million was posted in 2012.

Overall, the aforementioned effects improved EBIT by 42.7% to € –260 million (2012: € –453 million) and EBITDA by 45.2% to € –244 million (2012: € –445 million). Adjusted for one-time effects, EBITDA pre totaled € –197 million in 2013 (2012: € –283 million). The business free cash flow reported under Corporate and Other amounted to € –281 million in 2013 (2012: € –309 million).

Report on Risks and Opportunities

Risks and opportunities are inherent to entrepreneurial activity. The Group has put systems and processes in place to identify risks at an early stage and to counteract them by taking appropriate action. At Merck KGaA, Darmstadt, Germany, opportunity management is an integral component of internal decision-making processes such as short- and medium-term operational planning and intra-year business plans. We are pursuing the goal of exploiting opportunities and thereby enhancing the benefit to the Group.

Risk and opportunity management

The company is part of a complex, global business world and is exposed to a multitude of external and internal influences. Every business decision is therefore based on the associated risks and opportunities.

In our internal risk reporting, risks are defined as possible future events or developments that could lead to a negative deviation from our (financial) targets. In parallel, opportunities are defined as possible events or developments that imply a positive deviation from our planned (financial) targets.

Risk management process

The objective of our risk management activities is to recognize, assess and manage risks early on and to implement appropriate measures to minimize them. The responsibilities, objectives and process of risk management are described in our internal risk management guideline. Group Controlling & Risk Management forms the organizational framework for risk management and reports directly to the Group Chief Financial Officer.

Within the context of the Group-wide risk management process, the division heads, managing directors of Merck KGaA, Darmstadt, Germany, subsidiaries and heads of Group functions are specified as employees with responsibility for risk. The group of consolidated companies for risk reporting purposes is the same as the group of consolidated companies for the consolidated financial statements. Every six months, the risk owners assess their risk status and report their entire risk portfolio to Risk Management. In addition to presenting risks, this also includes reporting on measures to minimize risk. The Group uses special risk management software in the context of these activities.

Internal Auditing conducts regular reviews

Risks are assessed in the internal risk management process on the basis of their possible negative effect on the forecast financial targets and their anticipated probability of occurrence. If risk-mitigating measures can be taken, their impact on risk is also assessed. The residual risk after the implementation of mitigation measures is presented in the internal risk report as net risk. The planned timeframe for implementation and the assumed mitigation effect are tracked by Group Risk Management.

Group Risk Management uses the information reported to determine the current risk portfolio for the Group, presenting this in a report to the Executive Board, the Supervisory Board and the Finance Committee with detailed explanations twice per year. Furthermore, significant changes in the assessment of the risks already known and new significant risks can be reported at any time and are communicated to the corporate bodies on an ad hoc basis.

For the standard process, a lower limit for risk reporting is set at a value of € 5 million, and for the ad hoc process at a value of € 25 million. Risks below these limits are managed independently in the units. The relevant timeframe for internal risk reporting is five years. The effect of risks is presented as an annual value.

→ *Report on Risks and Opportunities*

The assessment of the risks presented relate to December 31, 2013. There were no relevant changes after the end of the reporting period that would have necessitated an amended presentation of the risk situation of the Group.

Within the scope of audits, Group Internal Auditing regularly reviews the performance of risk management processes within the units and, at the same time, the communication of relevant risks from the operating units to Group Risk Management.

In addition to these bottom-up processes, Group Risk Management addresses potential risks and risk areas on a top-down basis. This process is based on independent analyses of both internal and external information.

Opportunity management process

Selective investments in growth markets are part of the Group opportunity management process

The risk management system described concentrates on business risks, and not on opportunities at the same time. The Group's opportunity management process is integrated into our internal controlling processes and carried out in the operating units on the basis of the Group strategy. The divisions analyze and assess potential market opportunities as part of strategy and planning processes. In this connection, investment opportunities are examined and prioritized in terms of their potential value proposition to the Group in order to ensure an effective allocation of resources. Thereby, the Group selectively invests in growth markets to leverage the opportunities of dynamic development and customer proximity at a local level.

If the occurrence of the identified opportunities is rated as likely, they are incorporated into the business plans and the medium-term forecasts. Trends going beyond this or events that could lead to a positive development in the net assets, financial position and results of operations are presented in the following report as opportunities. These could result in a positive deviation from forecasts and the Group's medium-term prospects.

Risk and opportunity assessment

Risks

The significance of risks to the Group is calculated on the basis of their possible negative impact on the forecast financial targets in conjunction with the probability of occurrence of the respective risk. In line with these two factors, risks are classified as "high", "medium" or "low".

The underlying scales for measuring these factors are shown below:

Probability of occurrence

Probability of occurrence	Explanation
< 20%	Unlikely
20 – 50%	Possible
51 – 80%	Likely
> 80%	Very likely

→ *Report on Risks and Opportunities*

Degree of impact

Degree of impact	Explanation
> € 50 million	Critical negative impact on the net assets, financial position and results of operations
€ 20 – 50 million	Substantial negative impact on the net assets, financial position and results of operations
€ 5 – 20 million	Moderate negative impact on the net assets, financial position and results of operations
< € 5 million	Insignificant negative impact on the net assets, financial position and results of operations

In our process, individual risks are quantified as specifically as possible and the probability of occurrence of the risk is estimated. The combination of the two factors results in the risk matrix below, which shows the individual risks and their significance to the Group.

Risk matrix

Impact	Risk matrix			
> € 50 million	Medium	Medium	High	High
€ 20 – 50 million	Medium	Medium	Medium	High
€ 5 – 20 million	Low	Medium	Medium	Medium
< € 5 million	Low	Low	Low	Low
Probability of occurrence	< 20%	20 – 50%	51 – 80%	> 80%

Opportunities

Opportunities are assessed in their respective specific business environment. Marketing measures for operational planning are usually quantified in relation to sales and EBITDA. Net present value, the return on capital employed (ROCE) and the amortization period of the investment are used to assess and prioritize investment opportunities. Similarly, scenarios are frequently set up to simulate the influence of possible fluctuations and changes in the respective factors on results. There is no overarching, systematic classification of the probability of occurrence and impact of opportunities.

→ *Report on Risks and Opportunities*

Internal control system for the Group accounting process

The objective of the internal control system for the accounting process is to implement controls that provide assurance that the financial statements are prepared in compliance with the relevant accounting laws and standards. It covers measures designed to ensure the complete, correct and timely transfer and presentation of information that is relevant to the preparation of the consolidated financial statements and the management report of the Group.

The control system is subject to continuous further development and is an integral component of the accounting and financial reporting processes in all relevant local units and Group functions.

With respect to the accounting process, the measures of the internal control system are intended to minimize the risk of a material misstatement in the consolidated accounting process of the Group.

Key tools

The internal control system is geared to ensuring the accuracy of the consolidated accounting process and the implementation of internal controls for the preparation of compliant financial statements with reasonable assurance. The Group Accounting function centrally steers the preparation of the consolidated financial statements of Merck KGaA, Darmstadt, Germany, as the parent company of the Group. This Group function defines the reporting requirements that all Merck KGaA, Darmstadt, Germany, subsidiaries must meet as a minimum requirement. At the same time, this function steers and monitors the scheduling and process-related requirements of the consolidated financial statements. The Group-wide accounting guidelines form the basis for the preparation of the statutory financial statements of the parent company as well as of the German and foreign subsidiaries; the guidelines are adapted to reflect changes in the financial regulatory environment and are updated in accordance with internal reporting requirements. One of the requirements of the Group-wide guidelines is to present internal business processes as the basis for proper settlement of intercompany balances. Additional controls have been implemented in the consolidation process.

Group Accounting also ensures the timely central management of changes to the equity holding structure and correspondingly adapts the Group's scope of consolidation. The individual companies have a local internal control system. Where financial processes are handled by a Shared Service Center, the internal control system of the Shared Service Center is additionally applied. They ensure that accounting complies with IFRS (International Financial Reporting Standards) and with the Group accounting guidelines.

Group Accounting provides support to the local contacts and ensures a consistently high quality of reporting throughout the entire reporting process.

The accounting process is designed at all levels to ensure a clearly defined segregation of duties and assignment of responsibilities to the units involved in the accounting process at all times within the scope of continuous dual control.

For the assessment of balance sheet items, Group Accounting closely cooperates with Group Risk Management in order to correctly present potential balance sheet risks. For special issues, such as the measurement of intangible assets and pension obligations, external experts are additionally involved where necessary. For the Group accounting process, the company uses in most countries a standard SAP software tool. Via a detailed authorization concept to limit user rights on a need-to-have basis, and in line with the principles of the separation of duties, the system contains both single-entity reporting and the consolidated financial statements.

→ *Report on Risks and Opportunities*

The effectiveness of the Group's internal control system with regard to accounting and the compliance of financial reporting by the individual companies is confirmed by both the local managing director and the local chief financial officer when they sign the single-entity reporting. All the structures and processes described are subject to regular review by Group Internal Auditing based on an annual audit plan set out by the Executive Board. The results of these audits are dealt with by the Executive Board, the Supervisory Board and the Finance Committee.

The internal control system at the Group makes it possible to lower the risk of material misstatements in accounting to a minimum. However, no internal control system – regardless of its design – can entirely rule out a residual risk.

Business-related risks and opportunities

Changes in customer demand or new political conditions can impact the forecast results

The Group integrates its risk management into its ongoing business planning processes. Identified risks and opportunities are taken into account in internal planning provided that it can be assumed that these risks and opportunities are probable in the planning period. The risks and opportunities presented in the risk and opportunities report below are those possible future events that could respectively lead to a further negative or positive deviation from planning.

Potential extraordinary negative developments, such as changes in customer demand or new political conditions, are identified, described and assessed as part of the internal risk management process. We can therefore take countermeasures early on if any events lead to deviations from planning. Risks in connection with investment decisions are mitigated by the use of detailed guidelines.

During the planning processes, potential business opportunities are also analyzed and discussed alongside risks. As part of its Group strategy, Merck KGaA, Darmstadt, Germany, actively pursues the opportunities that arise, investing selectively in, for example, growth markets. Furthermore, deviations from the macroeconomic conditions assumed in planning, such as economic growth and expected segment-specific developments, e.g. change in the demand for key products of the Biopharmaceuticals division, can lead to positive deviations from the planned results.

Political and regulatory risks and opportunities

As a global company, the Group faces political and regulatory changes in a large number of countries and markets.

Risk of more restrictive regulatory requirements regarding drug pricing, reimbursement and approval

In its Pharmaceuticals business, the Group faced increasingly restrictive requirements in 2013 in terms of drug pricing, reimbursement and approval, a trend familiar in many countries. These requirements can negatively influence the profitability of the Group's products and jeopardize the success of market launches and new approvals. Close communication with health and regulatory authorities serves as a preventive measure to avert risks. The risks are classified on a market- and product-specific basis; overall this is rated as a medium risk to the Group.

→ *Report on Risks and Opportunities*

The Group is subject to the European chemicals regulation REACH

Risk of stricter regulations for the manufacture, testing and marketing of products

In its Chemicals business, Merck KGaA, Darmstadt, Germany, must adhere to a multitude of regulatory specifications regarding the manufacture, testing and marketing of many of its products. More stringent regulations worldwide can have a negative impact on the Group's production costs and product portfolio. Specifically in the European Union, the Group is subject to the European chemicals regulation REACH, which is designed to ensure a high level of protection for people and the environment. It demands comprehensive tests for chemical products. Test procedures can be costly and time-intensive, and lead to a rise in production costs. Moreover, the use of chemicals in production could be restricted, which would make it impossible to continue manufacturing certain products. As the Group is constantly pursuing research and development in substance characterization, and in the possible substitution of critical substances, the occurrence of this risk is thought unlikely. Nevertheless, it is still classified as a medium risk given its potential impact on the net assets, financial position and results of operations.

Risk of destabilization of political systems and the establishment of trade barriers

Like changes in monetary policy, the destabilization of political systems and the possible establishment of trade barriers can lead to declines in sales in certain countries and regions. Diversification in terms of products, industries and regions enables the mitigation of potential negative effects. The effects of corresponding risks are taken into account to the best of ability in the business plans for the countries and regions concerned. In particular, our business can furthermore be affected by macroeconomic developments in, for example, Venezuela and Argentina. Corresponding sales strategy measures have been introduced in these countries to minimize the impact on business. Nevertheless, the residual net risk could have a substantial effect on the net assets, financial position and results of operations and its occurrence is considered possible. The company rates this as a medium risk overall.

Opportunity of positive benefit/risk assessment of Erbitux® for patients with metastatic colorectal cancer (mCRC)

At the end of 2013, the European Commission approved the updated labeling for one of the main products of the Biopharmaceuticals division, Erbitux® (cetuximab) for metastatic colorectal cancer, to include patients with RAS wild-type tumors. In doing so the European Commission followed the positive opinion from the Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency (EMA) also issued at the end of 2013, which advocated the amendment of product information. The exact effect of the updated approval status can be quantified only with difficulty, but it could lead to slight additional increases in the sales assumed for Erbitux®.

Market risks and opportunities

The Group competes with numerous companies in the pharmaceutical, chemical and life science sectors. Rising competitive pressure can have a significant impact on the quantities sold and prices possible for the Group's products and services.

→ *Report on Risks and Opportunities*

Market risks at the Biopharmaceuticals division due to increasing competitive pressure, especially with respect to Rebif®

Risk and opportunity of a changing market environment for multiple sclerosis products in the EU

In 2014, the Biopharmaceuticals division will face tougher competition as a result of significant changes in the market environment for multiple sclerosis products in the EU. Several new competitors to our product Rebif® are expected to enter the market. Strategies for defending market share have been launched and their impact as well as the development of the market, are being monitored on an ongoing basis. The Biopharmaceuticals division has made assumptions to this effect in its planning, however there could probably be an additional moderate impact nevertheless on the net assets, financial position and results of operations. This is rated as a medium risk. If there are delays in the market entry of competitors, a slight improvement in the sales situation for Rebif® compared to planning is possible.

Risk of greater competitive pressure due to biosimilars

Furthermore, biological products from the Biopharmaceuticals division could come under greater competitive pressure from biosimilars. Specific regulatory directives apply to the development and approval of competing biosimilars that use the reference data of biological products already approved. Frameworks have been drawn up in both the EU and the United States to enable biosimilars to enter the markets as soon as the exclusive rights of the original products expire. The products Rebif® and Gonal-f® could be affected in particular. The effects of corresponding risks are taken into account as far as possible in the plans for the countries and regions concerned.

Market opportunities offered by partnership with Dr. Reddy's Laboratories Ltd. in India and economic recovery in Europe

Opportunity due to the existing partnership in the field of biosimilars

The prospects of the development and approval of biosimilars also entail opportunities for the Group. Over nearly the past two years, Merck KGaA, Darmstadt, Germany, has taken its first steps in this direction and, among other courses of action, has entered into a partnership with Dr. Reddy's Laboratories Ltd., Hyderabad, India, for the joint development of a portfolio of biosimilars in oncology. The cost of development has been taken into account in the Group's plans, while a significant contribution to sales development is not to be expected until the medium to long term.

Opportunity due to unexpectedly strong economic recovery in Europe and the United States

A stronger economic recovery in Europe and the United States than forecast by the company, and the associated rise in investment activity by the private and public sectors is an opportunity for the Life Science Tools division in particular, as well as for the other divisions. Both public spending on academic institutions and the research costs of pharmaceutical companies recently came under heavy pressure as a result of the financial crisis and the high sovereign debt of many key countries. However, the probability of a more rapid recovery is low, and a possible effect is therefore also rated as immaterial.

Opportunity due to screen size growth in the display market

The development in the display market is currently being driven by growing screen sizes in particular. In addition, major events such as the FIFA World Cup 2014 in Brazil could stimulate consumer demand for the latest TVs. Therefore, we by all means see the possibility of a somewhat more positive development in the display market than forecast for 2014. However, the effect on sales and EBITDA pre one-time items in the Performance Materials division would be rather marginal in such a case as the market is dominated by other effects such as price pressure and continuing competition.

→ *Report on Risks and Opportunities*

Opportunity due to positioning of core strategic brands in the Consumer Health division

Initiative launched to improve the positioning of Consumer Health

There is the opportunity for the Consumer Health division of Merck KGaA, Darmstadt, Germany, in particular to further consolidate the position of its core strategic brands and to expand its presence in the emerging markets. An initiative has been launched for this purpose that can sustainably contribute to growth in sales and EBITDA pre one-time items. The transfer of the products Neurobion® and Floratil® to the division as of January 1, 2014 could provide additional impetus since this will enable Consumer Health to expand its focus on strategic brands.

Risks and opportunities of research and development

For Merck KGaA, Darmstadt, Germany, innovation is a major element of the Group strategy. Research and development projects can experience delays, expected budgets can be exceeded, or targets remain unmet. Research and development are of special importance to the Pharmaceuticals business. Therefore, research and development projects are constantly monitored by the internal portfolio management system. In the course of portfolio management, we regularly evaluate and, if necessary, refocus research areas and all R&D pipeline projects.

Risks of discontinuing development projects and regulatory approval of developed medicines

Sometimes development projects are discontinued at a late phase of clinical development after high levels of investment. Decisions – such as those relating to the transition to the next clinical phase – are taken with a view to minimizing risk. Furthermore, there is the risk that the regulatory authorities either do not grant or delay approval, which can have an impact on earnings. Additionally, there is the danger that undesirable side effects of a pharmaceutical product could remain undetected until after approval or registration, which could result in a restriction of approval or withdrawal from the market.

The Group is currently not aware of any risks beyond general development risks that could significantly affect the net assets, financial position and results of operations.

Opportunities due to new initiatives in research and development

Implementation of a new organizational structure and strengthening external research

The Group has made major changes to pharmaceutical research and development in the past two years. A new organizational structure was implemented and the level of external research was raised. For example, the company's own strategic venture capital fund MS Ventures was increased to € 100 million and research collaborations in Israel were intensified. The Biopharmaceuticals division's pipeline was redesigned and new development agreements were entered into, for example with Threshold Pharmaceuticals Inc. Similarly, the company is pursuing an innovative approach in the development and performance of clinical trials, and has entered into a strategic alliance with Quintiles, the world's largest service provider for biopharmaceutical development and marketing. Owing to the relatively long cycles in active ingredient development, the Group expects that the effects of these changes will not be reflected in the results of the Biopharmaceuticals division until some point in the medium to long term, but feels that there are excellent prospects for future sales and profitability.

→ *Report on Risks and Opportunities*

Risks and opportunities of product quality and availability

Risk of a temporary ban on products/production facilities or of non-registration of products due to non-compliance with quality standards

The Group is required to comply with the highest standards of quality in the manufacture of pharmaceutical products (Good Manufacturing Practice). In this regard the company is subject to the supervision of the regulatory authorities.

Conditions imposed by national regulatory authorities could result in a temporary ban on products/production facilities, and possibly affect new registrations with the respective authority. The Group takes the utmost efforts to ensure compliance with regulations, regularly performs its own internal inspections and carries out external audits. Despite these quality assurance processes, the occurrence of a risk cannot be wholly ruled out, however it is considered unlikely. Depending on the product concerned and the severity of the objection, such a risk could have a critical negative impact on the net assets, financial position and results of operations. Therefore, the Group rates this as a medium risk.

Risk of an import ban on products to the United States due to an FDA warning letter

On December 15, 2011, Merck KGaA, Darmstadt, Germany, received a warning letter from the United States Food and Drug Administration (FDA) in connection with inspections of production facilities in Tiburtina (Italy) as well as Aubonne and Vevey (Switzerland). Rebif® and other products intended for sale in the United States are manufactured at these sites. Above all, the letter referred to various procedures in conjunction with the manufacture of Rebif® that, in the opinion of the FDA, were not fully in compliance with the standards of Good Manufacturing Practice. Over the past two years, the Group has worked closely with the FDA to eliminate these concerns. Corrective action was coordinated with the FDA and implemented in a timely manner. The FDA conducted follow-up inspections in 2013. The procedure had not yet been formally closed out by the FDA on the reporting date. However, in the successful follow-up inspections of all three production sites concerned, it was confirmed in writing that the action taken was considered adequate. Given the corrective action taken, the probability of occurrence of a possible import ban on the products concerned to the United States has been downgraded to unlikely. On the basis of the potentially damaging effect on the net assets, financial position and results of operations until the procedure is closed out by the FDA, the Group rates this as a medium risk.

Risks of dependency on suppliers

Quality controls along the entire value chain minimize the risks related to product quality and availability. This begins with the qualification of our suppliers and continues with comprehensive quality requirements for raw materials, purchased semi-finished goods and facilities as well as long-term strategic alliances for precursor products critical to supply and price. The company is dependent on individual suppliers of precursor products for some of its main products. In the event that one of these suppliers curtails or discontinues production, or supply is disrupted, this would possibly have a critical impact on the Group operations concerned. With long-term strategic alliances for precursor products critical to supply and price as well as alternative sourcing strategies, the company minimizes the probability of occurrence of these risks and rates them as unlikely. Overall, these are classified as medium risks.

→ *Report on Risks and Opportunities*

Damage and product liability risks

Further risks include the risk of operational failures due to force majeure, for example natural disasters such as floods or earthquakes, which could lead to a substantial interruption or restriction of business activities. Insofar as it is possible and economical to do so, the Group limits its damage risks with insurance coverage, the nature and extent of which is constantly adapted to current requirements. Although the occurrence of these risks is considered unlikely, an individual event could have a critical effect on the net assets, financial position and results of operations and is therefore classified as a medium risk.

Danger of product liability risks

Companies in the chemical and pharmaceutical industries are exposed to product liability risks in particular. Product liability risks can lead to considerable claims for damages and costs to avert damages. The Group has taken out the liability insurance that is standard in the industry for such risks. However, it could be that the insurance coverage available is insufficient for individual cases. Although the occurrence of product liability claims in excess of the existing insurance coverage is considered unlikely, individual cases could still have a critical effect on the net assets, financial position and results of operations. The Group therefore rates potential product liability risk as a medium risk.

Risks due to product-related crime and espionage

Anti-Counterfeiting Operational Network of Merck KGaA, Darmstadt, Germany, in place to fight product-related crime

As a manufacturer and supplier of high-quality pharmaceuticals and chemicals, Merck KGaA, Darmstadt, Germany, – like other companies in the chemical and pharmaceutical industries – faces certain risks due to crime. These include, among others, theft, misuse and counterfeiting of products (including attempts at these crimes). This often goes hand in hand with an infringement of trademark rights. The professionalism and complexity of product-related crime has increased significantly in recent years. In the relevant cases, the company works closely and trustfully with the competent prosecution authorities in the countries concerned. To combat product-related crime, several years ago the Group established an internal coordination network covering all functions and divisions ("Anti-Counterfeiting Operational Network of Merck KGaA, Darmstadt, Germany") headed by Group Security, which provides a reliable interface to authorities, associations and partner companies. Particularly with regard to the unknown number of cases in the area of product-related crime, the material damage to the Group cannot be estimated. Its influence on business activities depends on the individual case in question as well as factors specific to regions and products. Product-related crime is therefore categorized as a medium risk at the Group.

At the Group, the undesirable loss of information by any possible form of offence is subsumed under the risk category "espionage". Above all, particular importance is attached in this regard to the protection of sensitive business information, data protection and the protection of tangible and intangible expertise. On the one hand this intersects with risks resulting from digital data processing and communication, but it also covers threats that are not IT-based. With the aim of preventing unwanted diversion of information, a high-ranking Intellectual Property Management Committee (IPMC) was established in one division at the Group as a pilot scheme. Spearheaded by Group Security, it applies a holistic protection concept that, in addition to technical IT security, information and data protection measures, also comprises further targeted security measures. The risk of an unwanted loss of information due to espionage is classified as possible despite the measures taken and could significantly impact the net assets, financial position and result of operations.

→ *Report on Risks and Opportunities*

Opportunities due to local presence in high-growth markets
In the coming years, the Group is still anticipating strong growth in the emerging markets in all divisions. In order to further enable this growth, the Group has initiated several investment projects, such as the construction of new production facilities for liquid crystals and the establishment of a new site of the Biopharmaceuticals division in China. The greater local presence and customer proximity can lend the Group a key competitive edge and, in the medium to long term, offers the opportunity for significant additional growth in sales and EBITDA pre one-time items.

Financial risks and opportunities

As a corporate group that operates internationally and due to its presence in the capital market, the company is exposed to various financial risks and opportunities. Above all, these are liquidity and counterparty risks, market opportunities and risks, risks of fluctuations in the market values of operational tangible and intangible assets, as well as risks and opportunities from pension obligations.

Risk and opportunity management in relation to the use of financial instruments

In the area of financial risks and opportunities, the company uses an active management strategy to reduce the effects of fluctuations in exchange and interest rates. The management of financial risks and opportunities by using derivatives in particular is regulated by extensive guidelines. Speculation is prohibited. Derivative transactions are subject to constant risk controls. A strict separation of functions between trading, settlement and control functions is ensured.

Liquidity risks

Merck KGaA, Darmstadt, Germany, has a central Group-wide liquidity management process

In order to ensure its continued existence, a company must be able to fulfill its commitments from operating and financial activities at all times. Merck KGaA, Darmstadt, Germany, therefore has a central Group-wide liquidity management process to reduce potential liquidity risks. Furthermore, the Group has a multi-currency revolving credit facility of € 2 billion with a term of five years and two extension options of one year each that, above and beyond the Group's positive operating cash flow, ensures continuing solvency if any liquidity bottlenecks occur. As our loan agreements do not contain any financial covenants, these agreed lines of credit can be accessed even if the Group's credit rating should deteriorate. In addition, in fiscal 2009 the Group set up a debt issuance program that forms the contractual basis for the issue of bonds. In 2013, the volume of this program was increased from € 10 billion to € 15 billion. The liquidity risk is rated as unlikely overall.

Counterparty risks

Counterparty risks arise from the potential default by a partner in connection with financial investments, loans and financing commitments on the one hand and receivables in operating business on the other.

As for counterparty risks from financial transactions, the Group reviews all positions relating to trading partners and their credit ratings on a daily basis. The Group manages financial risks of default by diversifying its financial positions and thereby by the active management of its trading partners. Significant financial transactions involving credit risk are entered into with banks and industrial companies that have a good credit rating. Moreover, the company's large banking syndicate – the multi-currency revolving credit facility of € 2 billion was syndicated by 19 banks – reduces possible losses in the event of default.

→ *Report on Risks and Opportunities*

The solvency and operational development of trading partners is regularly reviewed as part of the management of operational counterparty risks. Sovereign risks are also analyzed; this focuses in particular on Italy, Spain, Greece, and Portugal. The volume of receivables of each customer is capped in line with their credit ratings. Risk-mitigating measures, such as credit insurance, are utilized as appropriate. Nevertheless, defaults by isolated trading partners, even those with outstanding credit ratings, cannot be entirely ruled out, although rated as unlikely (further information can be found in "Credit risks" under "Management of financial risks" in the notes to the consolidated financial statements). Counterparty risk is classified as a medium risk overall.

Market opportunities and risks

As a result of its international business activities and global corporate structure, the Group is is exposed to risks and opportunities from fluctuations in exchange rates. These result from financial transactions, operating receivables and liabilities, forecast future cash flows from sales and costs in foreign currency. The Group uses derivatives to manage and reduce the above risks and opportunities. The exchange rates for transactions already recognized, such as operating receivables and liabilities in foreign currency, are essentially hedged. In certain cases, the exchange rate for forecast sales and future costs in foreign currency are hedged up to 36 months in advance (further information can be found in "Derivative financial instruments" in the notes to the consolidated financial statements).

Future refinancing and cash investments are exposed to the risks and opportunities of interest rate fluctuations. These are also managed and reduced using derivatives. Currency risks are rated as possible and after hedging are classed as a medium risk; interest rate risks are considered unlikely and are classed as a low risk.

Risks of impairment on balance sheet items

The carrying amounts of individual balance sheet items are subject to the risk of changing market and business conditions and thus to changes in fair values as well. If required, impairment losses can result in significant non-cash reductions in earnings and affect the accounting ratios. This applies in particular to the high level of intangible assets including goodwill, which have become significantly more important in the consolidated financial statements as a result of the acquisitions of Serono SA in 2007 and the Millipore Corporation in 2010, and the associated purchase price allocation (further information can be found under "Intangible assets" in the notes to the consolidated financial statements). All relevant risks were assessed during the preparation of the consolidated financial statements and taken into account accordingly. The Group rates risks beyond this as low.

Risk and opportunities from pension obligations

The Group has commitments in connection with pension obligations. The present value of defined benefit obligations can be significantly increased or reduced by changes in the relevant valuation parameters, e.g. the interest rate or future salary increases. Pension obligations are regularly assessed as part of annual actuarial reports. Some of these obligations are covered by the pension provisions reported in the balance sheet, while other obligations are externally funded (further information can be found under "Provisions for pensions and other post-employment benefits" in the notes to the consolidated financial statements). To the extent that pension obligations are covered by plan assets consisting of interest-bearing securities, shares, real estate, and other financial assets, decreasing or negative returns on these assets can adversely affect the

→ *Report on Risks and Opportunities*

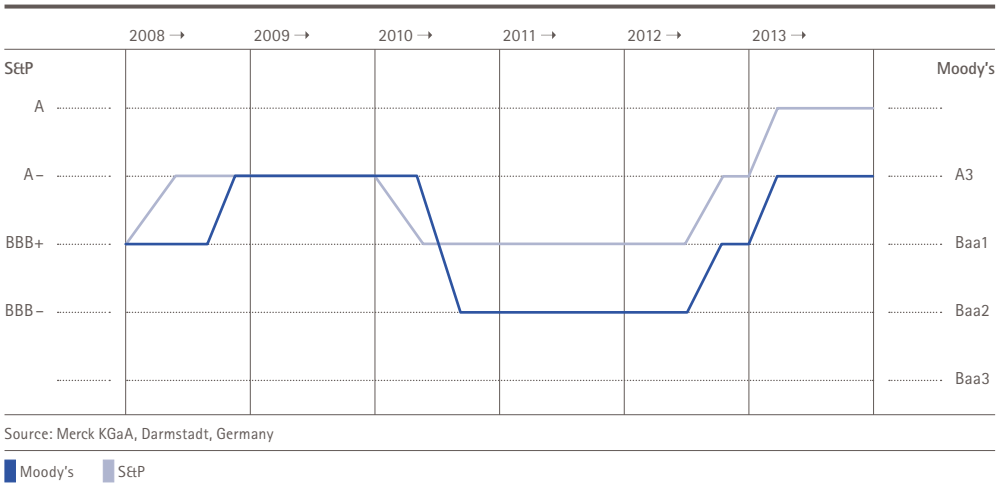
fair value of plan assets and thus result in further additions to pension provisions. By contrast, rising returns increase the value of plan assets, thereby resulting in excess cover of plan liabilities. The Group increases the opportunities of fluctuations in the market value of plan assets on the one hand and reduces the risks on the other by using a diversified investment strategy. The risk of pension liabilities is considered possible and is classed as a medium risk.

Assessments by independent rating agencies

Credit rating is the best in the Group's history

The capital market uses the assessments published by rating agencies to help lenders to assess the risks of a financial instrument. Merck KGaA, Darmstadt, Germany, is currently rated by Standard & Poor's and Moody's, and its ratings from these agencies rose in 2013 to the best level in the history of the Group: While Standard & Poor's issued a long-term rating of A with a stable outlook, Moody's issued it an A3 rating with a stable outlook. In line with market procedures, the Group's financing conditions are closely tied to its rating. The better a rating, the more favorably the Group can generally raise funds on the capital market or from banks.

Overview of rating development:



Source: Merck KGaA, Darmstadt, Germany

Legal risks

Our Code of Conduct helps to control legal risks

The company generally strives to minimize and control its legal risks. The Group has taken the necessary precautions to identify threats and defend our rights where necessary. A compliance program for our employees is in place around the world which requires them to comply with laws and guidelines, and which provides them with the relevant training and support. At the heart of this program is our Code of Conduct, which sets out guidelines for ethical behavior. This program helps to reduce the risk of major legal violations, for example of the regulations defined by antitrust or anticorruption law.

Nevertheless, the Group is still exposed to litigation risks or legal proceedings. In particular, these include risks in the areas of product liability, competition and antitrust law, pharmaceutical law, patent law, tax law, and environmental protection. As a research-based company, the Group has a valuable portfolio of industrial property rights, patents and brands that can become the target of attacks and infringements. The outcome

→ *Report on Risks and Opportunities*

of future proceedings or those currently pending is difficult to foresee. Court or official rulings or settlements can lead to expenses with a significant impact on our business and earnings.

Tax risks are reviewed regularly and systematically by Group Tax. Corresponding standards and guidelines are used in order to identify tax risks at an early stage as well as to review, evaluate and correspondingly minimize them. Risk minimization measures are coordinated by Group Tax together with the subsidiaries abroad.

In our opinion, the lawsuits described below constitute the most significant legal risks. This should not be seen as an exhaustive list of all legal disputes currently ongoing. Generally, it is not possible to rule out that the Group will face third-party claims arising from the same issue despite the conclusion of legal proceedings.

Risks from product-related and patent law disputes

Rebif®: In Israel, the Group is party to three legal disputes with Israel Bio-Engineering Project Limited Partnership ("IBEP"). IBEP is asserting claims for intellectual property rights and the payment of license fees. The legal disputes are connected to the financing of the development of Rebif®, a drug for the treatment of multiple sclerosis, and other products in the early 1980s. The company has taken appropriate accounting measures. In the liquidity assessment, the company rates this risk high as potential critical negative effects cannot be ruled out.

Merck KGaA, Darmstadt, Germany, is also involved in a patent dispute in the United States with Biogen IDEC Inc. (Massachusetts, USA) ("Biogen"). Biogen claims that the sale of Rebif® in the United States infringes on a Biogen patent. The disputed patent was granted to Biogen in 2009 in the United States. Subsequently, Biogen sued the company and other pharmaceutical companies for infringement of this patent. The company defended itself against all allegations and brought a countersuit claiming that the patent was invalid and not infringed on by the company's actions. A "Markman hearing" was held in January 2012. The parties are now engaged in court-ordered mediation proceedings. The company has taken appropriate accounting measures. Given the potential critical negative effects of the dispute in the liquidity assessment, the company nevertheless classifies this as a high risk.

Risks from antitrust law proceedings

Raptiva®: In December 2011, the Brazilian federal state of São Paulo sued the Group for damages owing to alleged collusion between various pharmaceutical companies and an association of patients suffering from psoriasis and vitiligo. This collusion is alleged to have been intended to increase sales of the medicines from the companies involved to the detriment of patients and state coffers. Moreover, patients are also suing for damages in connection with the product Raptiva®. The Group has taken appropriate accounting measures for these issues. Risks in excess of this with a substantial negative effect on the net assets, financial position and results of operations cannot be ruled out, but are considered unlikely. This is rated as a medium risk.

Risks from drug pricing by the divested Generics Group

The Group continues to bear the risk of having to defend against certain litigation brought against the Generics Group, which was sold to Mylan, Inc. (USA) in 2007. In this context, the Group remains responsible for risks from cases in the United States concerning drug pricing. The Group has taken appropriate accounting measures on the basis of possible scenarios. Since, in the worst case scenario, this would result in a substantial impact on the net assets, financial position and results of operations, with the possibility of the net risk occurring, the Group rates this as a medium risk.

→ *Report on Risks and Opportunities*

Paroxetine: In connection with the divested generics business, the Group is subject to antitrust investigations by the British Office of Fair Trading ("OFT") in the United Kingdom. In March 2013, the OFT informed the Group of the assumption that a settlement agreement entered into in 2002 between Generics (UK) Ltd. and GlaxoSmithKline in connection with the antidepressant drug paroxetine violates British and European competition law. As the owner of Generics (UK) Ltd. at the time, the Group was allegedly involved in the settlement negotiations and is therefore liable. The investigations into Generics (UK) Ltd. started in 2011, without Merck KGaA, Darmstadt, Germany, being aware of this. It is considered likely that the OFT will impose a fine on the Group. The Group has taken appropriate accounting measures. Given the lawsuit's potential substantial negative impact in the liquidity assessment, the company nevertheless classifies this as a medium risk.

Citalopram: In June 2013, the European Commission imposed a fine on the company for various agreements between its former subsidiary Generics (UK) Ltd. and the Danish company Lundbeck, which related to the antidepressant citalopram, patented by Lundbeck. Sufficient appropriate accounting measures have been taken for the risk. The company has filed an appeal with the European Court.

Risks and opportunities in human resources

Retaining employees is one of the Group's declared aims

The future growth of Merck KGaA, Darmstadt, Germany, is highly dependent on its innovative strength. Therefore, the expertise and engagement of employees in all areas in which the Group operates are crucial to the success of the company.

The markets relevant to the Group are characterized by intensive competition for qualified specialists and by demographic challenges. One of the key priorities for our company is therefore not just recruiting but also retaining specialists and talented employees in the long term. In this context, the focus on highly competitive and rapidly growing markets makes it especially necessary to have engaged employees. Fluctuation risks specific to countries and industries have to be identified ahead of time and specifically addressed in order to keep the skills and expertise critical to success and business within the company.

The company addresses these challenges firstly with globally implemented talent and succession processes that systematically identify and promote the potential of employees. Furthermore, the company uses targeted employee development programs to support young and experienced talented employees in their career development, particularly in our strategic markets, as well as to develop and retain expertise crucial to success within the company. These measures are supplemented by competitive compensation packages and attractive benefits that the company regularly reviews through ongoing peer comparisons and audits, thereby securing and maintaining its financial appeal as an employer.

Sourcing, recruiting and retaining specialists and talent at the Group are among the company's top priorities. Nevertheless, employee-related risks that affect business activities are likely, even though their impact is difficult to assess. The Group rates this as a medium risk.

Increasing the Group's employer appeal in strategic growth markets has great potential for future business performance. Based on the studies and findings available to date, our initial assessment of the opportunities leads to a rating similar to the previously described employee-related risks.

The company can therefore continue to increase the employer appeal of the "corporate brand" with the selective use of employer branding initiatives in the context of a defined talent sourcing strategy, thereby having a direct positive influence on recruiting and retaining key specialists and talent. Furthermore, the company intends to hone its talent and succession management even more closely to the requirements of specific markets.

→ *Report on Risks and Opportunities*

Risks and opportunities of information technology

Merck KGaA, Darmstadt, Germany, utilizes a wide range of IT systems and processes to provide optimum focus and appropriate support for its globalization. Trends in information technology offer various opportunities for the Group.

Opportunities from the use of mobile platforms and solutions

Mobility offers unique opportunities for reaching and networking employees, partners and customers, and stimulates synergies between value added for the company and individual interests. Mobility not only means the mobile use of online services; it is changing the way people see digital services and bringing business activities closer to employees, customers and partners without limiting them at all. The trend towards mobility suggests that mobile platforms and solutions will become important channels in terms of digital networking.

Opportunities from networked collaboration and digital media

"Connect 15" to improve communication Group-wide

New developments in the field of networked collaboration and digital media are opening up excellent opportunities for contact with employees, partners and customers, and establishing new channels for teamwork, interaction and communication. In R&D at the Group, these developments especially benefit collaboration within the company and with external partners. In addition, socially-driven information technology can also aid interaction in the field of life sciences and thereby foster innovation. The Group has launched a Group-wide program known as "Connect 15". Its objective is to harmonize corresponding IT systems, to simplify communications around the world and to facilitate cooperation between employees, external partners and customers. In the long term, the program offers the opportunity to reduce operating costs and to enhance productivity within the organization.

Opportunities due to further harmonization of IT systems

Harmonized IT systems that map standardized business processes allow management to steer business consistently worldwide. This enables efficient working, the fast and smooth integration of new businesses and the easier leverage of synergy effects. In addition, this trend is being driven by the growth of cloud solutions, which benefits from the use of configurable standard solutions. The effect of this harmonization will be seen firstly in the reduction of operating costs, while secondly the increased transparency will mean the opportunity to make decisions faster and to greater beneficial effect.

The value added by information technology in day-to-day work is countered by potential risks that arise directly from the advantages of the global availability of electronic data storage.

Risk from e-crime and cyber attacks

With the Internet as a means and the abuse of digital technologies as a new type of crime, e-crime as a whole is developing rapidly and poses a major challenge. This is giving rise to threats to the Group such as the failure of central IT systems, the exposure of confidential data from research and business activities, the manipulation of IT systems in chemical process steering, or greater burdens on or impairment of IT systems due to virus attacks. This scenario also includes the temporary takeover of exposed systems by hackers and consequently the possible revocation of drug registrations due to deficient validation of relevant IT systems.

→ *Report on Risks and Opportunities*

Group Security is a member of the Alliance for Cyber Security of the German Federal Office for Information Security

The entire Group has global security guidelines and information protection management for IT and "non-IT" areas, each with organizational and technical standards for access rights as well as information and data protection. Attention in the IT area is focused on hardening the corresponding systems and, for example, identifying cyber attacks. Group Security is a member of the Alliance for Cyber Security of the German Federal Office for Information Security. A pilot data leakage prevention project is currently being introduced at the Group to protect sensitive business information. The effectiveness of internal (IT) protection measures is monitored on an ongoing basis and reviewed by Group Security, Group Internal Auditing and third-party auditors.

The potential losses resulting from e-crime cannot be generally categorized, not least on account of the multitude of different possible ways it can be committed; its impact on the net assets, financial position and results of operations would depend on the individual case. Despite the protective measures already being taken by the company to great effect, the occurrence of the risk of e-crime is considered possible, with an estimated substantial impact. It is therefore classed as a medium risk.

Risks due to failure of business-critical IT applications or to failure of data center capacity

IT applications used globally in process steering form the basis for the contractual delivery of products and solutions to the customers of the Group around the world. Fluctuations in the quality of internal IT services can lead to the failure of business-critical IT applications, which would have a direct influence on the Group's ability to deliver. Similarly, the failure of a data center can impair service quality or trigger the complete failure of critical applications.

Quality management system certified to ISO 20000:2005 used to ensure consistent quality of IT services

The primary objective of Information Services in the Group is to maintain service quality in keeping with the service levels agreed with the Group functions and divisions. To achieve this objective, the Group uses a quality management system certified to ISO 20000:2005, which comprises steering measures to maintain a consistent standard of quality. In addition to day-to-day operating processes, this also provides directives on how to act in a crisis situation in the form of a regularly tested crisis management plan. As part of this crisis management, the Group operates several redundantly designed data centers so that service quality will be maintained even in the event of the failure of one data center.

Despite the mitigating measures taken, functional continuity plans and the unlikely probability of occurrence, the impact of a failure of business-critical IT applications owing to fluctuations in the quality of internal IT services and its influence on the net assets, financial position and results of operations is considered a medium risk.

Environmental and safety risks

As a company with global production operations, Merck KGaA, Darmstadt, Germany, is exposed to risks of possible damage to people, goods and its reputation. Audits, consulting and training on environmental protection and occupational health and safety minimize these risks to people and the environment. In order to ensure the continuity of plant and equipment, the company monitors these risks both at our own sites as well as at suppliers and contract manufacturers. By adhering to high technical standards, our rules of conduct, and all legal requirements in environmental protection and occupational health and safety, we ensure the preservation of goods and assets. Sufficient appropriate accounting measures have been taken for the environmental risks known to us. Nevertheless, the company classifies these as a medium risk since a critical negative impact to liquidity cannot be ruled out.

→ *Report on Risks and Opportunities*

Overall view of the risk and opportunity situation and management assessment

Although the number of risks reported is higher than the specific opportunities, the Group considers the distribution of risks and opportunities to be balanced. A balanced overall view within the Group is also supported by the fact that total revenues and business success are built on a diversity of pharmaceutical and chemical products for a variety of industries. As the markets differ in their structure and economic cycles, this diversification helps to lower risk. The overall view of the opportunity and risk profile of the four divisions would also be further balanced by the proposed acquisition of AZ Electronic Materials moving forward. This diversification also reflects the Group's strategy to continue its development as an integrated pharmaceutical and chemical company.

The most significant individual risks in the divisions have been named in the report above, with business-related risks being the most significant to us alongside legal risks.

Although the assessment of the individual risks has altered over the fiscal year as a result of changing external conditions, the risk situation of the Group as a whole is not significantly different compared to 2012. There have been no new additions in the area of high risks in particular. The company has observed only minor changes in the area of medium risks. Thanks to the mitigating measures taken – such as the consistent implementation of management action (organizational responsibility and process improvements), the increased insurance coverage and accounting precautions – the Group's significant risks in particular have been further minimized in net terms.

The overall view of the risk situation of the Group, which is derived from the summary of the risks described on the basis of their impact and probability of occurrence, leads the company to the assessment that the risks are not of a nature to threaten the existence of the Group as a going concern, either individually or collectively. The company is confident that it will continue to successfully master the challenges arising from the above risks in the future as well.

In terms of opportunities, we feel that the greatest potential lies in the business-related topics of the operational areas. Thanks in particular to the expansion of our business in emerging markets, the optimization of the Biopharmaceuticals division R&D organization, the newly founded biosimilars initiative and other activities as part of the "Fit for 2018" transformation and growth program, the Group has launched changes that hold significant opportunities in the medium to long term beyond the underlying forecast period.

The Group pursues the opportunities that arise and shows their expected effects in the forecast development of its key performance indicators – sales, EBITDA pre one-time items and business free cash flow. The Group will actively seek out opportunities beyond this and move ahead their implementation. In the event that opportunities arise in addition to the forecast developments, or that these occur more quickly than anticipated, this could have correspondingly positive effects on the Group's net assets, financial position and results of operations.

Report on Expected Developments

The following report provides a forecast for the development of the Group and its divisions in 2014 focusing on the three most significant financial key performance indicators (KPIs) for the Group and its businesses: sales, EBITDA pre one-time items and business free cash flow. We take into account the company's weighing up of risks and opportunities in accordance with our operational plans and medium-term assumptions.

In December 2013 Merck KGaA, Darmstadt, Germany, made an offer to AZ shareholders to acquire AZ Electronic Materials. From today's perspective the acquisition is expected to close in the course of 2014 (the successful completion of the transaction is conditional upon antitrust clearance, among other things). The following report provides on the one hand the expected developments of the Group excluding the impact from a potential acquisition of AZ Electronic Materials. On the other hand, we provide separately a forecast for the Group and for the Performance Materials division, which would be affected by the acquisition of AZ Electronic Materials assuming the first-time consolidation of AZ Electronic Materials in the Group in the second quarter of 2014.

Forecast for the Group

Group | Forecast 2014

€ million	Actual results 2013	Forecast 2014	Key assumptions
			Slight organic growth offset by currency headwinds in all divisions
Sales	10,700.1	slight organic growth	Organic development of the divisions: The Biopharmaceuticals division stable as Rebif® sales decline is offset by Emerging Markets growth, moderate organic growth in the Life Science Tools division and Consumer Health, volume growth in Performance Materials, which will be offset by price erosion
EBITDA pre one-time items	3,253.3	stable	Positive full-year impact from realized efficiencies offset by major investments in Biosimilars and the loss of royalty income EBITDA pre one-time items of Corporate and Other stable
Business free cash flow	2,960.0	slight decrease	Slight decrease due to higher investments in property, plant and equipment driven by strategic growth projects

We foresee stable sales for the Group in 2014 as slight organic growth is offset by an unfavorable impact from foreign exchange developments, which are anticipated to impact the sales of all divisions. While we expect the U.S. dollar-euro exchange rate to remain at around the 2013 level, an unfavorable foreign exchange development for the Group is expected to stem from Emerging Markets and Japan.

→ *Report on Expected Developments*

The Biopharmaceuticals division sales are expected to remain stable excluding foreign exchange effects. While Rebif® sales are expected to decline, we should see ongoing positive growth momentum from our Emerging Markets region. For the Consumer Health and Life Science Tools divisions, we expect moderate organic growth rates, while the positive volume growth in the Performance Materials division might be offset by price erosion, which is expected to occur next year.

From the second quarter of 2013 onwards, the Group saw the decline in royalty income at the Biopharmaceuticals division, which will fully come through in the course of 2014. The net decrease in EBITDA pre one-time items from expired royalty income and related royalty expenses with respect to Avonex® and Enbrel® amounts to approximately € 75 million. This reduction will be more pronounced due to the settlement agreement on the patent dispute with AbbVie concerning Humira®, which was reached at the beginning of 2014. On the other hand, the commercial agreement reached with Bristol-Myers Squibb in 2012 on the co-promotion of Glucophage® in China is expected to partly mitigate the negative impact.

Despite lower Rebif® sales, significant decline in royalty income and anticipated currency headwinds, the aim is to achieve the 2013 level of EBITDA pre

Despite the Rebif® sales decline, the significant reduction in royalty income and the anticipated unfavorable foreign exchange environment, the Group aims to achieve in 2014 EBITDA pre one-time items at the level of 2013. In the course of 2013 the Group realized most of the efficiencies from the "Fit for 2018" transformation and growth program, which will have a positive incremental effect reducing the cost base on a full-year basis in 2014. EBITDA pre one-time items of Corporate and Other is expected to remain stable. Restructuring costs on the current portfolio are planned to decrease from € 166 million in 2013 to approximately € 100 million in 2014. We expect an underlying improved tax ratio of 23% to 25% in 2014.

As publicly stated over the last two years, the company has embarked on a transformation journey that will last several years. The focus of this transformation journey will now shift more toward organic and inorganic growth. Therefore, the Group plans to accelerate R&D activities on strategic growth initiatives such as Biosimilars and OLED (organic light-emitting diodes) and to direct marketing and selling resources even more to growth markets. The Group's ambition to take M&A initiatives has become clear through the announcement of the intention to acquire AZ Electronic Materials. The Group's business free cash flow is expected to decrease slightly in comparison with 2013 as higher investments in property, plant and equipment in strategic projects such as the construction of a pharmaceutical production facility in China are planned.

The Executive Board of Merck KGaA, Darmstadt, Germany, decided to transfer two product groups, Neurobion® (a vitamin B-based analgesic) and Floratil® (a probiotic anti-diarrheal), from the Biopharmaceuticals division to the Consumer Health division as of January 1, 2014. This move, which transfers the sales and all related expenses for both product groups, will enable a better strategic focus for both divisions, while fostering synergies in the organization. Consequently, approximately € 265 million in sales, around € 100 million in EBITDA pre one-time items and around € 77 million in business free cash flow will be shifted from the Biopharmaceuticals division to Consumer Health based on 2013 results. Within Consumer Health, we expect these two product groups to grow moderately in line with the existing Consumer Health portfolio in 2014.

→ *Report on Expected Developments*

While the acquisition of AZ Electronic Materials is anticipated to lead to a moderate increase in sales and EBITDA pre one-time items and to a slight increase in business free cash flow of the Group in 2014 compared to 2013, a significant increase is expected in sales, EBITDA pre one-time items as well as business free cash flow for the Performance Materials division of Merck KGaA, Darmstadt, Germany.

Forecast for the Biopharmaceuticals division

Biopharmaceuticals | Forecast 2014

€ million	Actual results 2013	Forecast 2014	Key assumptions
			Balanced product portfolio and solid organic growth in Emerging Markets expected to offset Rebif® decline in the U.S. and Europe and expected biosimilar entries for Fertility in Europe
			Unfavorable impact from foreign exchange development will lead to slight decrease in nominal sales
Sales	5,953.6	organic stable on a comparable basis	Neurobion® and Floratil® transfer to Consumer Health division will reduce sales by ~€ 265 million based on actual 2013 results
			Development in line with sales, tight cost management will help to balance the reduction in royalties from Avonex®, Enbrel® and Humira®
			Higher R&D expenses in Biosimilars unit
EBITDA pre one-time items	1,955.0	slight decrease on a comparable basis	Neurobion® and Floratil® transfer to Consumer Health division will reduce EBITDA pre one-time items by ~€ 100 million based on 2013 actual results
			Initiation of further investments in growth projects and slight decrease of EBITDA pre will lead to lower business free cash flow
Business free cash flow	1,875.7	moderate decrease on a comparable basis	Neurobion® and Floratil® transfer to Consumer Health division will reduce 2013 business free cash flow by ~€ 77 million based on actual 2013 results

Due to the aforementioned decision to transfer two product groups, Neurobion® and Floratil®, from the Biopharmaceuticals division to the Consumer Health division as of January 1, 2014, the base for the Biopharmaceuticals division will decrease by approximately € 265 million in sales, around € 100 million in EBITDA pre one-time items and around € 77 million in business free cash flow, based on 2013 results of the transferred brands. Accordingly, the 2014 forecast for the Biopharmaceuticals division is based on the 2013 results reduced by the transfer.

→ *Report on Expected Developments*

Strong product portfolio and footprint in Emerging Markets help protect sales of the Biopharmaceuticals division and balance Rebif® sales decline

Stable organic sales are expected for 2014, while an unfavorable expected impact from foreign exchange development might negatively weigh on the reported numbers. We assume that Rebif®, the Biopharmaceuticals division's top-selling product, will continue to face severe competitive pressure in the United States and that it will also start to lose market share in Europe as a result of the market entry of new products in the multiple sclerosis segment. Sales of the oncology drug Erbitux® are expected to grow moderately fueled by the recent update of the metastatic colorectal cancer labeling to patients with RAS wild-type tumors as well as due to continued good performance in Japan. For Gonal-f®, the largest drug in the Fertility franchise, the Group expects only a marginal improvement in 2014 coming from market expansions in Emerging Markets but offset by expected launches of biosimilar products in Europe. Slight growth is assumed for the Cardio-Metabolic Care and Endocrinology franchises.

We forecast the Biopharmaceuticals division's EBITDA pre one-time items to decrease slightly compared to 2013 driven by the reduction in royalties from Avonex®, Enbrel® and Humira® amounting to a net EBITDA pre one-time items effect of € 115 million versus 2013.

In the United States, the Group distributes Rebif® under a co-promotion agreement with the pharmaceutical company Pfizer until end of 2015. Based on the agreement the Group pays commission expenses, which are expected to decline in 2014 in line with lower Rebif® sales. From 2016 onwards the Group intends to take over the entire Rebif® distribution in the United States and consequently no longer be subject to commission expenses.

While the worldwide pharmaceutical market is expected to recover and to grow at mid-single-digit rates in 2014 according to IMS Health, geographic growth remains unevenly distributed. Mature markets show tentative signs of recovery, but remain sluggish. Austerity measures are expected to continue to put pressure on the health care industry in Europe, which is still the company's dominant regional market. By contrast, many Emerging Markets such as China and Brazil will grow at double-digit rates and remain growth drivers for the pharmaceutical industry.

Owing to geographic developments, the Biopharmaceuticals division intends to strengthen its profitability position in Europe and the United States, to further redirect its resources to Emerging Markets and to grow in these developing economies. At the same time cost development will be monitored closely.

Strategic growth projects in Supply and R&D lead to higher investment level

As part of the Group's strategy we will forge ahead with the build-up of the Biopharmaceuticals division's Biosimilars unit and therefore plan an increase in our divisional R&D expenses. Driven by the initiation of further growth projects such as the construction of a production facility in China, the Biopharmaceuticals division's investment in property, plant and equipment will increase in 2014. As a result of the lower EBITDA pre one-time items and these investments, a moderate decrease is expected for the Biopharmaceuticals division's divisional business free cash flow.

→ *Report on Expected Developments*

Forecast for the Consumer Health division

Consumer Health | Forecast 2014

€ million	Actual results 2013	Forecast 2014	Key assumptions
			Moderate organic growth driven by strategic core brands and all geographical markets, slightly offset by unfavorable foreign exchange development
Sales	476.9	moderate increase on a comparable basis	Neurobion® and Floratil® transfer from the Biopharmaceutical division will increase sales by ~€ 265 million based on actual 2013 results; the two product groups are expected to grow in line with existing portfolio
			Moderate increase in line with sales development
			Slight increase in marketing and selling as well as R&D expenses in order to support growth in Emerging Markets and to invest in other growth projects
EBITDA pre one-time items	72.5	moderate increase on a comparable basis	Neurobion® and Floratil® transfer from the Biopharmaceutical division will increase EBITDA pre one-time items by ~€ 100 million based on actual 2013 results
			Slight increase driven by EBITDA pre one-time items, Working capital to increase slightly in line with sales increase
Business free cash flow	83.9	slight increase on a comparable basis	Neurobion® and Floratil® transfer from the Biopharmaceutical division will increase business free cash flow by ~€ 77 million based on actual 2013 results

With the decision by the Executive Board of Merck KGaA, Darmstadt, Germany, to transfer the two product groups, Neurobion® and Floratil®, from the Biopharmaceuticals division to the Consumer Health division as of January 1, 2014, the base for the Consumer Health division will increase by approximately € 265 million in sales, around € 100 million in EBITDA pre one-time items and around € 77 million in business free cash flow, based on the actual 2013 results of the transferred brands. Accordingly, the 2014 forecast for the Consumer Health division is based on the combined 2013 result.

Course set for profitable growth based on core strategic brands in key markets

After having set up a new regional operating model and significantly improving its cost structures over the past two years, the Consumer Health division will continue to focus its activities on the development and selective expansion of core strategic brands and on strengthening its position in key markets. The division's goal is to achieve meaningful market shares in all relevant combinations of strategic core brands and focus markets. In doing that, profitable growth is expected from all regions, including Emerging Markets, where Consumer Health is presently underrepresented with its main consumer brands such as Bion®, Nasivin® or Femibion®.

→ *Report on Expected Developments*

As a consequence of a continued effort on focusing the portfolio and marketing efforts on core brands and markets, the Group expects sales of the Consumer Health division to increase moderately in 2014 and to develop in line with the over-the-counter (OTC) drug market in countries where the Group competes.

We expect the EBITDA pre one-time items of the Consumer Health division to increase moderately as marketing and selling expenses will be slightly increased to support growth in Emerging Markets and R&D spending will be raised to invest in developing a robust innovation pipeline beyond 2014. Business free cash flow is expected to be slightly above the level of 2013 as it is assumed that the EBITDA pre one-time items increase will be partly offset by increases in working capital proportionate to higher sales.

Forecast for the Performance Materials division

Performance Materials | Forecast 2014

€ million	Actual results 2013	Forecast 2014	Key assumptions
			Slight organic growth of divisional sales offset by slight contraction due to foreign exchange development
			Volume growth but normal price erosion in Liquid Crystals unit for established products
Sales	1,642.1	at best at previous year level	Pigments & Cosmetics to increase slightly
			Decline in Liquid Crystal product prices may put pressure on the gross margin
EBITDA pre one-time items	779.7	at best at previous year level	EBITDA pre one-time items expected at best at the previous year's level
			Development driven by EBITDA pre one-time items
Business free cash flow	787.8	moderate decrease	Investments in property, plant and equipment in 2014 will be raised to support the "Fit for 2018" transformation and growth program

After a strong 2013, the Performance Materials division will be able to maintain its leadership position in the liquid crystals market and to deliver slight growth in the Pigments & Cosmetics business unit in 2014.

→ *Report on Expected Developments*

Volumes in the display industry are expected to increase, but with continued pressure on prices

We expect in 2014 at best stable sales from the Liquid Crystals business unit. Despite volume growth, prices for established products will decline further. Volumes in the display industry are forecast to increase in 2014 after a moderate development in 2013 according to market researchers from Display Search. LC will remain by far the leading technology and display size will remain the main growth driver. New, innovative liquid crystal technologies will continue to strengthen the market. For example, the Group is advancing nicely with the development of SA-VA technology, which is likely to enter the market in 2015. Display production focus will be shifting gradually to China, where the Group's new facility in Shanghai will be inaugurated in 2014 to support growth close to main customers.

For the Group's Pigments & Cosmetics business unit, the markets are assumed to continue to offer attractive growth rates in the future. As in the Group's other divisions, the need for innovative products and the shift in demand to Emerging Markets and thereby in particular to China, can be observed. Sales by the Pigments & Cosmetics business unit are expected to increase slightly driven by Xirallic® effect pigments.

Overall Merck KGaA, Darmstadt, Germany, expects at best stable sales for the Performance Materials division in 2014 as stable organic growth might be offset by a slight contraction of reported sales due to an unfavorable foreign exchange development. Lower prices in Liquid Crystals and additional volumes will put some pressure on the divisional gross margin, whereas marketing & selling expenses and administration costs will be maintained largely at the 2013 level. R&D expenses will be slightly increased with a focus on investments in the OLED area and future LC technologies. As a result of this, we forecast for 2014 at best an EBITDA pre one-time items for Performance Materials at the level of 2013. Business free cash flow is expected to decrease moderately as the division raises its investments in property, plant and equipment in 2014 to support the "Fit for 2018" transformation and growth program and to optimize its capacities.

If the acquisition of AZ Electronic Materials takes place, the Group expects a significant increase in sales, EBITDA pre one-time items as well as business free cash flow for the Performance Materials division in 2014 compared to 2013.

Forecast for the Life Science Tools division

Life Science Tools | Forecast 2014

€ million	Actual results 2013	Forecast 2014	Key assumptions
			Moderate organic growth, slightly offset by foreign exchange development
Sales	2,627.5	slight increase	Growth fueled by Process Solutions and Lab Solutions, Bioscience continues to be challenged by sluggish demand
EBITDA pre one-time items	642.8	slight increase	Marginal addition to marketing and selling as well as R&D expenses, improvement driven by slight sales increase
Business free cash flow	493.8	stable	Investments in property, plant and equipment in 2014 raised to support the "Fit for 2018" transformation and growth program, which slightly offsets the EBITDA pre one-time items increase

The Life Science Tools division is expected to remain on a healthy growth path throughout 2014. All business units have been forecast to contribute to a slight increase in sales.

→ *Report on Expected Developments*

Healthy growth of the Life Science Tools division is driven by the Process Solutions and Lab solutions business units

The pharmaceutical market is expected to recover and to grow at middle single-digit rates compared to 2013 according to IMS Health, strongly driven by sales of biotech products. After two years of decline, R&D spending by the pharmaceutical industry is expected to resume according to Evaluate Pharma. The Process Solutions business unit, which supplies consumables and services to major pharmaceutical and biotech manufacturing companies, is expected to deliver solid organic sales growth fueled by these favorable market dynamics.

The company expects solid performance in the Lab Solutions business unit in 2014 as the global laboratory products market is expected to grow by +1.5% to +2.0% compared to last year (Frost & Sullivan market research).

The Bioscience business unit, whose main customer groups are academic and government laboratories and institutions as well as pharmaceutical and biotechnological research organizations, is likely to continue to face a challenging economic environment in 2014. Sluggish development is forecast in the major markets of Europe and North America due to budget sequestration measures, while Emerging Markets are expected to drive growth.

Marketing and selling expenses and R&D expenses are planned to develop in line with sales, leading to a further slight improvement of divisional EBITDA pre one-time items. Investments in property, plant and equipment will be at higher levels in 2014 as the division is in the process of enhancing its production and supply network. As a result business free cash flow is projected to remain stable at the level of 2013.

Summary

The Executive Board of Merck KGaA, Darmstadt, Germany, continues to see neither any major technology shifts in its Chemical businesses nor any major new product launches in the Pharmaceutical business in 2014. The Group will continue with the implementation of the "Fit for 2018" transformation and growth program and enter a phase of continuous improvement. We plan to accelerate our R&D activities on strategic business initiatives such as Biosimilars and OLED and to direct our marketing and selling resources to growth markets.

We forecast slight organic sales growth for the Group driven by the Life Science Tools and Consumer Health divisions for 2014. Despite the Rebif® sales decline, the significant reduction in royalty income and an anticipated unfavorable foreign exchange environment, we aim to achieve the 2013 level of Group EBITDA pre one-time items. Business free cash flow is expected to decrease slightly as several strategic growth projects will require investments in property, plant and equipment.

Report in accordance with Section 315 (4) of the German Commercial Code (HGB)

The following information is provided in accordance with Section 315 (4) of the German Commercial Code and the explanatory report pursuant to Section 176 (1) sentence 1 of the German Stock Corporation Act (AktG).

As of the balance sheet date, the company's subscribed capital is divided into 64,621,125 no-par bearer shares plus one registered share. Each share therefore corresponds to € 2.60 of the share capital. The holder of the registered share is E. Merck Beteiligungen KG, Darmstadt, Germany. It is entitled and obliged to appoint one-third of the members of the Supervisory Board representing the limited liability shareholders. If the holder of the registered share is a general partner, he or she has no such right of appointment. The transfer of the registered share requires the company's approval. The approval is granted at the sole discretion of the personally liable general partner with an equity interest, namely E. Merck KG, Darmstadt, Germany.

On December 31, 2013, no shareholders owned direct or indirect investments exceeding more than 10% of the voting rights.

According to the Articles of Association of Merck KGaA, Darmstadt, Germany, the general partners not holding an equity interest who form the Executive Board are admitted by E. Merck KG, Darmstadt, Germany, with the consent of a simply majority of the other general partners. A person may only be a general partner not holding an equity interest if he or she is also a general partner of E. Merck KG, Darmstadt, Germany. In addition, at the proposal of E. Merck KG, Darmstadt, Germany, and with the approval of all general partners not holding an equity interest, further persons who are not general partners not holding an equity interest may be appointed to the Executive Board.

The Articles of Association can be amended by a resolution by the Annual Meeting that requires the approval of the general partners. The resolutions of the General Meeting are, notwithstanding any statutory provisions to the contrary, adopted by a simple majority of the votes cast. Where the law requires a capital majority in addition to the voting majority, resolutions are adopted by a simple majority of the share capital represented in the vote. The Articles of Association of the company specify the authorized share capital. The Executive Board is authorized, with the approval of the Supervisory Board and of E. Merck KG, Darmstadt, Germany, to increase the share capital on one or several occasions until April 26, 2018 by up to a total of € 56,521,124.19 by issuing new shares against cash or contributions in kind. The Executive Board is authorized to exclude, with the approval of the Supervisory Board, the statutory subscription right of the limited liability shareholders in the case of capital increases against cash contributions if the issue price of the new shares is not significantly lower than the stock exchange price of already listed shares carrying the same rights, as defined in section 203 (1) and (2) and section 186 (3) sentence 4 of the German Stock Corporation Act (AktG), at the time when the Executive Board finally fixes the issue price, and if the proportion of the share capital represented by the new shares for which the subscription right is excluded does not exceed 10% of the share capital available at the time of the resolution of the Annual General Meeting or – if this amount is lower – of the share capital available at the time of exercising this authorization. This upper limit shall be reduced by the prorated amount of shares that are sold during the term of the authorized capital under exclusion of shareholders' subscription rights pursuant to section 71 (1) no. 8 sentence 5 and section 186 (3) sentence 4 of the German Stock Corporation Act, as well as shares that must be issued to redeem option or convertible bonds, as long as the bonds have been issued during the term of this authorization under exclusion of subscription rights. In addition, with the approval of the Supervisory Board, the subscription right of the shareholders can be excluded in order to enable E. Merck KG, Darmstadt, Germany, to exercise its right pursuant to Article 32 (3) of the Articles of Association to participate in a capital increase by issuing shares or freely transferable share subscription rights and to enable E. Merck KG, Darmstadt, Germany, to exercise its right pursuant to Article 33 of the Articles of Association to convert its equity interest into share capital. Moreover, with the approval of the Supervisory Board, the subscription right of the shareholders can be excluded as far as this is

necessary, in order to grant subscription rights for new shares to holders of warrants and convertible bonds issued by the company or its subsidiaries, to the extent to which they would be entitled after exercising their option and conversion rights or fulfilling their option and conversion obligations. Lastly, with the approval of the Supervisory Board, the subscription right of the shareholders can be excluded in order to exclude fractional amounts from the subscription right.

The Articles of Association also encompass conditional capital. Accordingly, the share capital is contingently increased by up to € 66,406,298.40 divided into 25,540,884 shares. The contingent capital increase serves to grant exchange rights to E. Merck KG, Darmstadt, Germany, in accordance with Article 33 of the Articles of Association to enable the conversion of its equity interest. The company is not authorized to acquire its own shares.

The company has not entered into any material agreements subject to a change of control pursuant to a takeover offer nor has it concluded any compensation agreements with the members of the Executive Board or employees in the event of a takeover offer.

Subsequent Events

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

#02

Corporate Governance

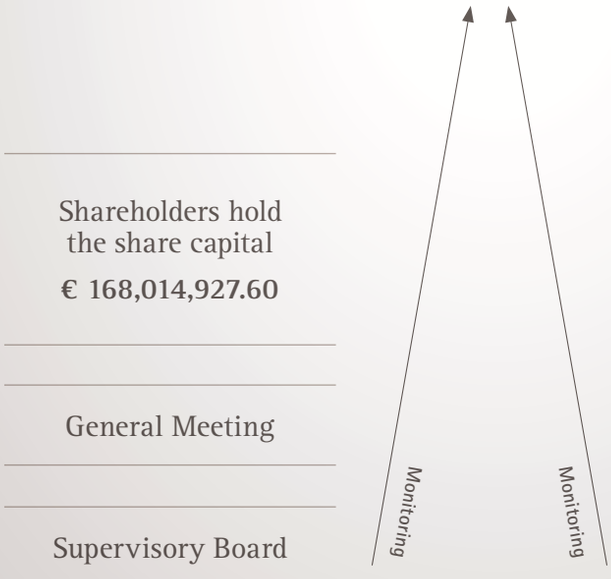
Capital structure and corporate bodies of Merck KGaA, Darmstadt, Germany

Merck KGaA, Darmstadt, Germany
Total capital

€ 565,211,241.95

Executive Board
of Merck KGaA, Darmstadt, Germany

General partners
with no equity interest



Shareholders hold the share capital

€ 168,014,927.60

General Meeting

Supervisory Board

The general partner E. Merck KG, Darmstadt, Germany, holds the equity interest

€ 397,196,314.35

Board of Partners of E. Merck KG, Darmstadt, Germany

→ see "Merck KGaA, Darmstadt, Germany" (p. 151)

Statement on Corporate Governance

The Statement on Corporate Governance contains the Statement of Compliance, relevant information on practices within the company as well as a description of the procedures of the corporate bodies.

Joint Report of the Executive Board and the Supervisory Board according to section 3.10 of the German Corporate Governance Code including Statement of Compliance

The German Corporate Governance Code is geared toward the conditions found in a German stock corporation ("Aktiengesellschaft" or "AG") and does not take into consideration the special characteristics of a corporation with general partners ("Kommanditgesellschaft auf Aktien" or "KGaA") such as Merck KGaA, Darmstadt, Germany. Given the structural differences between an AG and a KGaA, several recommendations of the German Corporate Governance Code are to be applied to a KGaA only in a modified form. Major differences between the two legal forms exist in terms of liability and management. While, in the case of an AG, only the AG is liable as a legal entity, the general partners of a KGaA also have unlimited personal liability for the company's obligations (section 278 (1) of the German Stock Corporation Act – "AktG"). At Merck KGaA, Darmstadt, Germany, this pertains to both E. Merck KG, Darmstadt, Germany, – which pursuant to Art. 8 (5) of the Articles of Association is excluded from management and representation – as well as to the managing general partners, who together make up the Executive Board of Merck KGaA, Darmstadt, Germany. The members of the Executive Board of Merck KGaA, Darmstadt, Germany, are therefore subject to unlimited personal liability. Unlike an AG, their executive authority is not conferred by the Supervisory Board, but rather by their status as general partners.

Consequently, in addition to other responsibilities typical of the supervisory board of an AG (see description of the procedures of the Supervisory Board on page 165), the supervisory board of a KGaA does not have the authority to appoint the management board, draw up management board contracts, or specify compensation of the management board. This legal form also involves special features with regard to the General Meeting. For example, in a KGaA, many of the resolutions made require the consent of the general partners (section 285 (2) AktG), particularly also the adoption of the annual financial statements (section 286 (1) AktG).

Merck KGaA, Darmstadt, Germany, applies the Code analogously where these regulations are compatible with the legal form of a KGaA. In order to enable shareholders to compare the situation at other companies more easily, to a broad extent we base corporate governance on the conduct recommendations made by the Government Commission of the German Corporate Governance Code and forego having our own, equally permissible, code. The recommendations of the Code, the intent and meaning of which are applied, were complied with in the period between the last Statement of Compliance and June 9, 2013, i.e. during the period of validity of the version of the Code dated May 15, 2012, with two exceptions, and in the period between the last Statement of Compliance and April 26, 2013 with one further exception. The recommendations of the Code have been complied with since the change in the Code announced on June 10, 2013 with two exceptions. In the future, the recommendations of the Code will again be adhered to with two exceptions. Further details can be found on page 153.

For a clearer understanding, the following gives a general explanation of application of German company law at the Group with additional references to the General Meeting and shareholder rights.

Merck KGaA, Darmstadt, Germany

See diagram on page 150

The general partner E. Merck KG, Darmstadt, Germany, holds around 70% of the total capital of Merck KGaA, Darmstadt, Germany (equity interest); the shareholders hold the remainder, which is divided into shares (share capital). E. Merck KG, Darmstadt, Germany, is excluded from the management of business activities. The

→ *Statement on Corporate Governance*

general partners with no equity interest (Executive Board) manage the business activities. Nevertheless, due to its substantial capital investment and unlimited personal liability, E. Merck KG, Darmstadt, Germany, has a strong interest in the businesses of Merck KGaA, Darmstadt, Germany, operating efficiently in compliance with procedures, and exercises its influence accordingly. The participation of Merck KGaA, Darmstadt, Germany, in the profit/loss of E. Merck KG, Darmstadt, Germany, in accordance with Articles 26 et seq. of the Articles of Association further harmonizes the interests of the shareholders and of E. Merck KG, Darmstadt, Germany. E. Merck KG, Darmstadt, Germany, appoints and dismisses the Executive Board. In addition, E. Merck KG, Darmstadt, Germany, has created bodies – complementing the expertise and activities of the Supervisory Board – to monitor and advise the Executive Board. This task applies primarily to the Board of Partners of E. Merck KG, Darmstadt, Germany. Based on the provisions of the German Stock Corporation Act, the Articles of Association of Merck KGaA, Darmstadt, Germany, and the rules of procedure of the various committees, Merck KGaA, Darmstadt, Germany has a set of rules for the Executive Board and its supervision that meet the requirements of the Code. The investors, who bear the entrepreneurial risk, are protected as provided for by the Code.

The General Meeting of Merck KGaA,Darmstadt, Germany

The eighteenth General Meeting of Merck KGaA, Darmstadt, Germany, was held on April 26, 2013 in Frankfurt am Main, Germany. At 67.54%, the proportion of share capital represented at the meeting was stable, exceeding the proportion of 63.5% in 2012.

In particular, the Annual General Meeting passes resolutions concerning the approval of the annual financial statements, the appropriation of net retained profit, the approval of the actions of the Executive Board members and the Supervisory Board members, as well as the choice of the auditor. Changes to the Articles of Association likewise require the adoption of a resolution by the General Meeting.

The shareholders of Merck KGaA, Darmstadt, Germany, exercise their rights at the General Meeting. They may exercise their voting rights personally, through an authorized representative, or through a proxy appointed by the company. The proxy is in attendance throughout the duration of the General Meeting. All the documents and information concerning upcoming General Meetings (including a summary explanation of shareholder rights) are posted on our website. Moreover, the General Meeting is webcast live on the Internet from its commencement until the end of the speech by the Chairman of the Executive Board. The introductory speeches by the Chairman of the Executive Board and the Chairman of the Supervisory Board are recorded in order to make them available to interested members of the public at any time after the meeting. In this way, we are satisfying the high transparency requirements of the Group.

→ *Statement on Corporate Governance*

Statement of Compliance

In accordance with section 161 AktG applying the provisions of the German Corporate Governance Code correspondingly, the Executive Board and the Supervisory Board issued the following statement of compliance with the recommendations of the Government Commission of the German Corporate Governance Code:

"Declaration of the Executive Board and the Supervisory Board of Merck KGaA, Darmstadt, Germany, on the recommendations of the Government Commission of the German Corporate Governance Code pursuant to section 161 AktG.

Since the last statement of compliance on March 6, 2013, the Group has complied with the recommendations of the Government Commission of the German Corporate Governance Code in the version dated May 15, 2012 and published in the official section of the German Federal Gazette during its period of validity with the following exception:

Contrary to section 5.4.1 sentence 2 of the German Corporate Governance Code, an age limit is not taken into account when proposing candidates for election to the Supervisory Board pursuant to the published objectives of the Supervisory Board. The age of Supervisory Board members is not a criterion for their qualifications and competence. Moreover, we do not wish to forego the many years of experience of Supervisory Board members.

Contrary to section 5.3.1 of the German Corporate Governance Code, the Supervisory Board has not established an audit committee. However, an audit committee does exist in the form of the Finance Committee of the Board of Partners of E. Merck KG, Darmstadt, Germany, which to a large extent exercises the duties described in section 5.3.2 of the Code. Due to the relatively limited authority of the supervisory board of a KGaA in comparison with that of an AG, this therefore satisfies the requirements of the German Corporate Governance Code.

Since the announcement of the amendment of 5.4.6 (2) of the German Corporate Governance Code on June 15, 2012, up until April 26, 2013 the compensation of the Supervisory Board of the company did not correspond to the current recommendations to the extent that, apart from reimbursement for expenses and fixed compensation, performance-related compensation was granted based on the dividend of the current fiscal year. With the version of the German Corporate Governance Code dated May 15, 2012, the recommendation was introduced that performance-related compensation should be oriented toward the sustainable development of the company. The 2013 Annual General Meeting passed a resolution on a new compensation system that, since April 27, 2013, has stipulated exclusively fixed compensation in line with the recommendations of the German Corporate Governance Code in force since June 15, 2012.

During the period from June 10, 2013 until the issuance of this Statement of Compliance, the recommendations of the Government Commission of the German Corporate Governance Code in the version dated May 13, 2013 and announced by the German Federal Ministry of Justice on June 10, 2013 in the official section of the German Federal Gazette were complied with apart from the aforementioned exceptions to 5.4.1 sentence 2 and 5.3.1.

In view of future compliance with the current recommendations of the Government Commission of the German Corporate Governance Code, the Executive Board and the Supervisory Board declare the following: With the exception of the aforementioned deviations from section 5.4.1 sentence 2 (age limit) and section 5.3.1 (audit committee), the company will comply with the recommendations of the Code in the version dated May 13, 2013."

Darmstadt, February 28, 2014

For the Executive Board	For the Supervisory Board
s. Karl-Ludwig Kley	**s. Rolf Krebs**

→ *Statement on Corporate Governance*

Compensation report

(The compensation report is part of the audited Notes to the Group accounts)

Compensation of members of the Executive Board of Merck KGaA, Darmstadt, Germany

Contrary to management board members of German stock corporations, the members of the Executive Board of Merck KGaA, Darmstadt, Germany, are not employed officers of the company. Rather, they are personally liable general partners of both Merck KGaA, Darmstadt, Germany, and the general partner E. Merck KG, Darmstadt, Germany, and in this capacity they receive profit-based compensation from E. Merck KG, Darmstadt, Germany. Given this context, the stipulations of the German Corporate Governance Code concerning the compensation of management board members of publicly listed German stock corporations as well as the individual disclosure thereof do not apply to the Executive Board members of Merck KGaA, Darmstadt, Germany. Nevertheless, Merck KGaA, Darmstadt, Germany, has decided to disclose the individual compensation of each Executive Board member in the following report.

Contrary to publicly listed German stock corporations, at Merck KGaA, Darmstadt, Germany, it is not the Supervisory Board, but the Board of Partners of E. Merck KG, Darmstadt, Germany, that decides on the amount and composition of compensation. E. Merck KG, Darmstadt, Germany, has transferred the execution of this right to its Personnel Committee. Among other things, the Personnel Committee is responsible for the following decisions: contents of contracts with Executive Board members, granting of loans and advance salary payments, approval for taking on honorary offices, board positions and other sideline activities, as well as the division of responsibilities within the Executive Board of Merck KGaA, Darmstadt, Germany. The compensation system defined by the Personnel Committee for Executive Board members takes into account various aspects relevant to compensation, including the responsibilities and duties of the individual Executive Board members and their status as personally liable partners, their individual performance, the economic situation, performance and prospects of the company, normal compensation levels (by way of peer comparison) and the rewards structure otherwise in place in the company. The relationship between Executive Board compensation and the compensation of top management and the workforce as a whole is also taken into account, also in a multi-year assessment. The Personnel Committee regularly commissions an independent compensation consultant to review the appropriateness of compensation.

Features of the compensation system

The compensation paid to the Executive Board members of Merck KGaA, Darmstadt, Germany, in fiscal 2013 comprises fixed components, variable compensation components and additions to pension provisions. Benefits in kind and other benefits are additionally granted.

Fixed compensation

Fixed compensation is paid in the form of 12 equivalent monthly installments. The table on page 157 provides an overview of the amount of the fixed compensation paid in 2012 and 2013.

→ *Statement on Corporate Governance*

Variable compensation

Variable compensation is based on the three-year rolling average of profit after tax of the Group formed by E. Merck KG, Darmstadt, Germany. The Board of Partners of E. Merck KG, Darmstadt, Germany, decides at its own discretion on consideration of exceptional factors that amount to more than 10% of the Group profit. The members of the Executive Board receive individually fixed per mille rates based on the net income of the Group formed by E. Merck KG, Darmstadt, Germany.

Additionally, in exceptional cases the Personnel Committee of E. Merck KG, Darmstadt, Germany, which is responsible for the compensation of the Executive Board, may grant one-time payments voluntarily and at its own discretion. In such cases, the Personnel Committee ensures that the one-time payments do not exceed the respective total compensation of the individual Executive Board member composed of fixed and variable compensation (excluding the one-time payment).

Additional variable compensation (Long-Term Incentive Plan of Merck KGaA, Darmstadt, Germany)

In 2012, a long-term variable compensation component known as the Long-Term Incentive Plan of Merck KGaA, Darmstadt, Germany, was added to the variable compensation of the members of the Executive Board. It aims to enhance the sustainability of the compensation system and to align it not only with target achievement based on key performance indicators, but above all with a sustainable performance of company shares.

Subject to the resolution of the Personnel Committee each year, under the company's Long-Term Incentive Plan the members of the Executive Board could be eligible to receive a certain number of virtual shares – Share Units of Merck KGaA, Darmstadt, Germany, (MSUs) – at the end of a three-year performance cycle. The number of MSUs that could be received depends on the total value defined for the respective person and the average closing price of company shares in Xetra® trading during the last 60 trading days prior to January 1 of the respective fiscal year (reference price). In order to participate in the Plan, members of the Executive Board must personally own an investment in company shares equivalent to 10% of their respective fixed annual compensation, taking into account the equity interest held in E. Merck KG, Darmstadt, Germany, as a personally liable general partner. It is not permitted to sell these shares during the performance cycle. After termination of the three-year performance cycle, the number of MSUs to be granted then is determined based on the development of two key performance indicators (KPIs). These are:

a) the performance of the company share price compared to the DAX® with a weighting of 70%, and
b) the development of the EBITDA pre margin during the performance cycle as a proportion of a defined target value with a weighting of 30%.

Depending on the development of the KPIs, at the end of the respective performance cycle, the members of the Executive Board are granted between 0% and 150% of the MSUs they could be eligible to receive.

Based on the number of MSUs granted, the members of the Executive Board receive a cash payment at a defined point in time in the year following the expiration of the three-year performance cycle. The value of an MSU corresponds to the average closing price of company shares in Xetra® trading during the last 60 trading days prior to January 1 after the performance cycle. The payment amount is limited to three times the reference price. The members of the Executive Board invest 50% of the payment amount in company shares. One third of these shares may be sold at the earliest one year after termination of the performance cycle, another third after two years, and another third after three years.

→ *Statement on Corporate Governance*

In fiscal 2013, the following total values were specified for members of the Executive Board, which resulted in the respective number of MSUs they were eligible to receive based upon the definitive reference price of company shares (60 trading days preceding January 1, 2013) of € 100.11: Karl-Ludwig Kley € 1.5 million (14,984 MSUs), Kai Beckmann € 1.0 million (9,990 MSUs), Stefan Oschmann € 1.0 million (9,990 MSUs), Bernd Reckmann € 1.0 million (9,990 MSUs), and Matthias Zachert € 1.0 million (9,990 MSUs). For fiscal 2014, the Personnel Committee authorized the Chairman of the Personnel Committee to assign potential numbers of MSUs to the Executive Board members for a performance cycle from January 1, 2014 to December 31, 2016. The following total values were defined as the initial basis: Karl-Ludwig Kley € 1.5 million, Kai Beckmann € 1.0 million, Stefan Oschmann € 1.0 million, and Bernd Reckmann € 1.0 million.

Additional benefits

The members of the Executive Board also receive certain additional benefits, mainly contributions to insurance policies as well as a company car, which they are entitled to use privately. Overall, the value of other additional benefits totaled € 120 thousand in 2013 (2012: € 122 thousand). Of this amount, in 2013 € 28 thousand was attributable to Karl-Ludwig Kley (2012: € 28 thousand); € 23 thousand to Kai Beckmann (2012: € 23 thousand); € 19 thousand to Stefan Oschmann (2012: € 21 thousand); € 26 thousand to Bernd Reckmann (2012: € 26 thousand); and € 24 thousand to Matthias Zachert (2012: € 24 thousand).

→ *Statement on Corporate Governance*

Total compensation

Accordingly, the following total compensation results for the members of the Executive Board of Merck KGaA, Darmstadt, Germany, broken down by performance-independent and performance-related components:

		Performance-independent components		Performance-related components			Total	Share-based compensation expensed in the period[4]
				with a long-term incentive effect				
		Fixed compensation	Additional benefits	Variable compensation[1]	Long-Term Incentive Plan			
		(€ thousand)	*(€ thousand)*	*(€ thousand)*	*Number of MSUs[2] (units)*	Fair value[3] *(€ thousand)*	*(€ thousand)*	*(€ thousand)*
Current members								
Karl-Ludwig Kley	2013	1,100	28	4,334	14,984	1,849	7,311	2,185
	2012	1,100	28	2,795	21,562	1,626	5,549	857
Kai Beckmann	2013	800	23	2,895	9,990	1,233	4,951	1,457
	2012	800	23	1,746	14,375	1,084	3,653	571
Stefan Oschmann	2013	1,000	19	3,534	9,990	1,233	5,786	1,457
	2012	1,000	21	2,295	14,375	1,084	4,400	571
Bernd Reckmann	2013	1,000	26	3,534	9,990	1,233	5,793	1,457
	2012	1,000	26	2,295	14,375	1,084	4,405	571
Matthias Zachert	2013	1,000	24	3,284	9,990	1,233[5]	5,541	1,457
	2012	1,000	24	2,045	14,375	1,084[5]	4,153	571
Total	**2013**	**4,900**	**120**	**17,581**	**54,944**	**6,780**	**29,382**	**8,012**
	2012	**4,900**	**122**	**11,176**	**79,062**	**5,962**	**22,160**	**3,141**

[1] The one-time payments for 2013 granted to Karl-Ludwig Kley, Kai Beckmann, Stefan Oschmann, Bernd Reckmann and Matthias Zachert are included in the variable compensation components for 2013.
[2] Number of the potential MSUs subject to target achievement. For details on the calculation thereof, see page 156. The actual number of MSUs to be granted after the expiration of the three-year performance cycle may deviate from this.
[3] Fair value on the date of the grant (date of the legally binding entitlement). The amount of a payment is not predefined. Payment is subject to target achievement and is only made on a specified date after the expiration of a three-year performance cycle. The fair value of the obligations was calculated using a Monte Carlo simulation based on the previously described KPIs. The expected volatilities are based on the implicit volatility of shares of Merck KGaA, Darmstadt, Germany, and the DAX® index in accordance with the remaining term of the LTIP tranche. The dividend payments incorporated into the valuation model orient towards medium-term dividend expectations.
[4] In accordance with IFRS the expense recorded for 2013 includes the values for the 2012 and 2013 LTIP tranches.
[5] The Personnel Committee of E. Merck KG, Darmstadt, Germany, decided on February 6, 2014 that Matthias Zachert will only receive payments under the LTIP for the 2012 tranche. The (9,990) MSUs granted in 2013 will not lead to a payment.

→ *Statement on Corporate Governance*

Pension provisions

The individual contractual pension obligations grant the members of the Executive Board entitlement to a lifelong old-age pension or surviving dependents' pension in the event of reaching the individual contractually agreed age limit, permanent disability, or death.

The amount of the old-age pension is determined by a percentage share of pensionable compensation defined by the Personnel Committee.

The individual values are presented in the following table:

	Pensionable compensation (€ thousand)	Percentage entitlement
Karl-Ludwig Kley	790	70
Kai Beckmann	300	45
Stefan Oschmann	500	45
Bernd Reckmann	500	60
Matthias Zachert	400	44

The percentage entitlement increases up until retirement by two percentage points per year of service up to 70% for Kai Beckmann, Bernd Reckmann and Matthias Zachert. Their pension entitlements were correspondingly increased in fiscal 2013.

The following amounts were added to pension provisions in 2013:

	Additions to pension provisions		
€ thousand	2013	2012	Amount of pension provisions as of Dec. 31, 2013
Karl-Ludwig Kley	803	2,023	8,093
Kai Beckmann	–47	653	2,431
Stefan Oschmann	483	156	1,137
Bernd Reckmann	–15	1,446	5,740
Matthias Zachert	280	195	628[1]
Total	**1,504**	**4,473**	**18,029**

[1] Due to Matthias Zachert's departure, he will no longer have any entitlement to pension payments.

The surviving dependents' pension grants the spouse a lifelong surviving dependents' pension amounting to 60% of the pension entitlement, dependent children either a half-orphan's or an orphan's pension maximally until the age of 25.

As an alternative to an old-age pension, upon reaching the age limit specified in their individual contracts, it is planned to offer the members of the Executive Board the possibility to receive their pension entitlement in the form of a one-time lump-sum payment calculated in accordance with actuarial principles.

→ *Statement on Corporate Governance*

Benefits in the event of termination of the duties as an Executive Board member

The employment contracts of Karl-Ludwig Kley, Kai Beckmann, Stefan Oschmann and Bernd Reckmann each contain a post-contractual non-competition clause. An amount equal to 50% of the average contractual benefits paid to the respective Executive Board member within the past 12 months prior to leaving the company shall be provided as compensation for each year of the two-year non-competition period. During the period of the non-competition clause, other employment income as well as pension payments will be credited toward this compensation. Within certain time limits, E. Merck KG, Darmstadt, Germany, has the possibility to dispense with adherence to the non-competition clause with the consequence that the obligation to make the compensation payments shall cease to apply.

Above and beyond existing pension obligations, no further obligations additionally exist in the event of the termination of the contractual relationships of the Executive Board members.

Miscellaneous

The members of the Executive Board do not receive additional compensation for serving on the boards of Group companies.

Should members of the Executive Board be held liable for financial losses while executing their duties, under certain circumstances this liability risk is covered by a D&O insurance policy from Merck KGaA, Darmstadt, Germany. The D&O insurance policy has a deductible in accordance with the legal requirements and the recommendations of the German Corporate Governance Code.

Payments to former Executive Board members and their surviving dependents

Pension payments to former members of the Executive Board or their surviving dependents amounted to € 7,494 thousand in 2013 (2012: € 10,478 thousand). Pension provisions totaling € 103,615 thousand exist for pension entitlements of this group of persons (2012: € 108,473 thousand).

Compensation of the Supervisory Board members of Merck KGaA, Darmstadt, Germany

The compensation of the Supervisory Board members is defined by Article 20 of the Articles of Association of Merck KGaA, Darmstadt, Germany. On April 26, 2013 the Annual General Meeting proposed a new compensation system in order to align it with the changes in the German Corporate Governance Code announced on June 15, 2012.

The rules that still applied until April 26, 2013 provided for the following: Apart from reimbursement of their expenses, the members of the Supervisory Board received fixed and variable compensation.

The fixed compensation amounted to € 7,000 per year. The Chairman received double this amount and the Vice Chairman receives one and a half times this amount.

The members of the Supervisory Board also received € 550 for each percent of the dividend resolved by the General Meeting in excess of 6% of the share capital, with a corresponding portion for fractions of a percent. The Chairman receives double this amount and the Vice Chairman received one and a half times this amount.

Supervisory Board members who had only been in office for part of the fiscal year received lower compensation in proportion to their term of office. The company reimburses the value-added tax levied on the compensation.

→ *Statement on Corporate Governance*

The rules applicable since April 27, 2013 stipulate that only fixed compensation be paid. The members of the Supervisory Board will now receive annual fixed compensation of € 47,000. The Chairman receives double and the Vice Chairman receives one and a half times this amount. In addition, the members receive additional compensation of € 750 per meeting.

Supervisory Board compensation for fiscal 2013 for the period from January 1, 2013 to April 26, 2013 was determined by the compensation rules applicable until April 26, 2013. For the period from April 27, 2013 to December 31, 2013, it is determined by the compensation rules applicable since April 27, 2013, whereupon the amounts stipulated in both provisions shall be respectively pro-rated in proportion to the amount of time. As of fiscal 2014, Supervisory Board compensation will be determined solely by the compensation rules applicable since April 27, 2013.

The individual values are presented in the following table:

Compensation of the Supervisory Board members of Merck KGaA, Darmstadt, Germany

	Fixed compensation				Variable compensation		Compensation for meeting attendance		Total compensation	
in €	2013			2012	2013	2012	2013	2012	2013	2012
	As of April 27, 2013	Until April 26, 2013	Total		Until April 26, 2013		As of April 27, 2013			
Rolf Krebs[1] (Chairman)	64,126.03	4,449.32	68,575.35	14,000.00	23,450.43	65,318.00	3,000.00	–	95,025.78	79,318.00
Heiner Wilhelm (Vice Chairman)	48,094.52	3,336.99	51,431.51	10,500.00	17,587.82	48,988.00	3,000.00	–	72,019.33	59,488.00
Crocifissa Attardo	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Mechthild Auge	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Johannes Baillou[2]	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Frank Binder[3]	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Wolfgang Büchele[2]	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Michael Fletterich	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Edeltraud Glänzer	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Jürgen Glaser	32,063.01	2,224.66	34,287.67	4,686.00	11,725.22	21,862.00	3,000.00	–	49,012.89	26,548.00
Jens Frank[5]	32,063.01	1,649.32	33,712.33	-	8,692.83	-	2,250.00	–	44,655.16	–
Michaela Freifrau von Glenck[4]	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Hans-Jürgen Leuchs[2]	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Albrecht Merck[3]	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	3,000.00	–	49,012.89	39,659.00
Karl-Heinz Scheider	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	2,250.00	–	48,262.89	39,659.00
Theo Siegert[1]	32,063.01	2,224.66	34,287.67	7,000.00	11,725.22	32,659.00	2,250.00	–	48,262.89	39,659.00
Total	**561,102.69**	**38,356.21**	**599,458.90**	**113,186.00**	**202,158.94**	**528,076.00**	**45,750.00**	**–**	**847,367.84**	**641,262.00**[6]

[1] As members of corporate bodies of E Merck KG, Darmstadt, Germany, these Supervisory Board members each received an additional payment of € 150,000 for performing this function in 2013 (2012: € 150,000).
[2] As members of corporate bodies of E Merck KG, Darmstadt, Germany, these Supervisory Board members each received an additional payment of € 140,000 for performing this function in 2013 (2012: € 140,000).
[3] As members of corporate bodies of E Merck KG, Darmstadt, Germany, these Supervisory Board members each received an additional payment of € 120,000 for performing this function in 2013 (2012: € 120,000).
[4] As members of corporate bodies of E Merck KG, Darmstadt, Germany, these Supervisory Board members each received an additional payment of € 80,000 for performing this function in 2013 (2012: € 80,000).
[5] Member of the Supervisory Board since January 31, 2013
[6] Supervisory Board members who left the Supervisory Board in 2012 are not listed in the table. Therefore, the total compensation shown here for fiscal 2012 deviates from the actual amount of total compensation paid and reported in the Annual Report for 2012, which was € 694,031.

→ *Statement on Corporate Governance*

Ownership, purchase or sale of shares in the company by members of the Executive Board and of the Supervisory Board

As of December 31, 2013, the members of the Executive Board and of the Supervisory Board either directly or indirectly held 13,692 shares of Merck KGaA, Darmstadt, Germany. Their total ownership represents less than 1% of the issued shares of Merck KGaA, Darmstadt, Germany. Transactions executed by members of the Executive Board and of the Supervisory Board are disclosed on the Group's website at www.emdgroup.com/investors → Corporate Governance → Directors' Dealings.

Information on Corporate Governance Practices

Reporting

It is the objective of Merck KGaA, Darmstadt, Germany, to provide the latest information to all shareholders, media, financial analysts and interested members of the public, while creating the greatest possible transparency. For this reason, the Group uses a wide range of communication platforms to engage in a timely dialogue with all interested parties about the situation of the company and business changes. The company's principles include providing factually correct, comprehensive and fair information.

Information subject to disclosure requirements, as well as information that is not, can be accessed worldwide on the Merck KGaA, Darmstadt, Germany, website (www.emdgroup.com), which is the company's most important publication platform. Apart from a detailed financial calendar, quarterly and half-year financial reports covering the past three years are available here in German and English. In addition, in line with the legal requirements, ad hoc announcements are published on the website. These contain information on circumstances that could impact the share price of Merck KGaA, Darmstadt, Germany.

Regular press conferences, investor meetings on the occasion of investor conferences as well as road shows offer another platform for dialogue. The company presentations prepared for this purpose are also available on the Merck KGaA, Darmstadt, Germany, website. In addition, the Investor Relations team is always available to private and institutional investors who wish to receive further information.

To ensure the greatest possible transparency, all documents concerning the General Meeting are available on the company website. Additionally, some parts of the General Meeting are webcast live on the Internet.

Dealing with insider information

Dealing properly with insider information is very important to us. Our insider committee examines the existence of insider information, ensures compliance with legal obligations, and prepares any necessary measures. The members of the insider committee are appointed by the Executive Board; at least two members work in Group Legal & Compliance. The insider committee meets at regular intervals, yet also meets when circumstances require. The Chief Financial Officer is vested with the authority to make the final decision on handling potential insider information.

In order to ensure a high level of protection for insider information, in 2011 the Executive Board issued an internal insider guideline applicable throughout the Group worldwide. This guideline informs employees about their responsibilities under insider trading laws and gives clear instructions for compliant behavior. In addition, it describes the function of the insider committee in detail. Moreover, our Code of Conduct, which is binding on all employees, also contains an explicit, detailed reference to the ban on using insider information. Within the scope of obligatory training courses on the Code of Conduct, all employees are instructed on the subject of insider trading.

→ *Statement on Corporate Governance*

Accounting and audits of financial statements

Merck KGaA, Darmstadt, Germany, prepares its consolidated financial statements and Group management report in accordance with International Financial Reporting Standards (IFRS), as applicable in the EU, as well as the supplementary rules applicable under section 315a (1) of the German Commercial Code (HGB) and as stipulated by our Articles of Association. The Group financial statements and the Group management report are prepared by the Executive Board and examined by an auditor, taking into account the generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW).

The Supervisory Board commissioned KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, to audit the Group financial statements and the Group management report for 2013. The auditor responsible for auditing the consolidated financial statements changes regularly in accordance with the statutory requirements. Manfred Jenal is currently leading the audit engagement. Neither party identified any conflicts of interest. Moreover, the Supervisory Board agreed with KPMG AG that the auditor shall inform the Supervisory Board without delay of any grounds for bias or disqualification occurring during the audit if these cannot be immediately rectified. Additionally, the auditor must immediately report to the Supervisory Board any findings and issues which emerge during the audit that have a direct bearing upon the tasks of the Supervisory Board. The auditor shall inform the Supervisory Board or note in the audit report any circumstances determined during the audit that would render inaccurate the Statement of Compliance made by the Executive Board and the Supervisory Board. It has also been agreed with the auditor that in order to assess whether the Executive Board has fulfilled its obligations in accordance with section 91 (2) AktG, the audit will also cover the company's early warning risk identification system. Moreover, the auditor is required to examine and evaluate the accounting-relevant internal control system insofar as this is necessary and appropriate for assessing the accuracy of financial reporting.

Values and compliance

Based on a corporate culture that places the fundamental company values – courage, achievement, responsibility, respect, integrity and transparency – at the center of our entrepreneurial actions, the Code of Conduct helps those involved in the business process to implement the values when dealing with one another on a daily basis.

The company has created the Code of Conduct as a set of rules and regulations intended to help our employees to act responsibly and to make the right decisions in their daily work.

The Code of Conduct explains the principles for dealings with business associates, general partners, colleagues, and employees, as well as the communities in which we operate. Thus, it supports all employees in acting ethically – not only in their dealings with one another, but also outside the company. The Code of Conduct is thus the main set of rules of our compliance program.

To the Group, compliance means observing legal and company-internal regulations and the basic ethical principles anchored in the company values. With the Code of Conduct and the various unit-specific ethical compliance rules, the values are integrated into daily work and business practice. The Code of Conduct is binding on all employees, both at headquarters as well as the subsdiaries. The Compliance Office monitors observance of the Code of Conduct with support from corresponding auditing and training programs throughout the Group. All employees are called upon to report compliance violations to their supervisor, Legal, HR or other relevant departments. The company created the position of Group Compliance Officer (GCO) in 2002. This employee is responsible for setting up, maintaining and further developing our global compliance program. By taking appropriate measures, the GCO and his team, including regional compliance officers, help to lower the risk of serious legal violations of, for instance, antitrust law or anticorruption rules. The role of the Group Compliance Officer is reflected in the subsidiaries, which ensure that

→ *Statement on Corporate Governance*

compliance measures are implemented in the countries. By reorganizing the Compliance function, as of 2013 Compliance tasks in the regions are largely performed by full-time Compliance Officers. As a result, a higher level of compliance expertise is based locally and the increasing tasks, above all in the pharmaceutical sector, are taken into account. At the same time, the management structure was streamlined and the reporting lines for the countries were consolidated regionally. Regular regional and global compliance meetings are held to promote the exchange of information within the compliance organization. Newcomer training seminars were introduced in 2010 for newly appointed compliance officers. These seminars serve to build up compliance expertise and strengthen cooperation within the compliance organization. This Group-wide network is used to steer the global compliance program.

Within the scope of this program, a high degree of importance is attached to regular compliance seminars of the Compliance Training Plan of Merck KGaA, Darmstadt, Germany, which are conducted as web-based training courses and on-site events. By presenting various training topics, particularly on the Code of Conduct, corruption, antitrust and competition law as well as health care compliance, they serve to sensitize employees and management to the consequences of compliance violations and to show ways of avoiding them. Since the company set up a central SpeakUp line, employees have been able to report compliance violations by telephone or via a web-based application in their respective national language. The SpeakUp line is available 24 hours a day, free of charge. Case numbers enable anonymous, two-way communication. The reports received are individually reviewed. If a compliance violation exists, corresponding corrective action is taken based on concrete action plans. If necessary, disciplinary measures are taken. These can range from a simple warning up to the dismissal of the employee who violated a compliance rule. In 2010, the company set up a compliance committee to guide these processes. The Compliance Committee consists of members from various Group functions; they are involved in reviewing compliance violations and introducing countermeasures. The joint work in the Compliance Committee enables processes between the various Group functions to be optimized. Further significant elements of the Compliance program include requirements on locally identifying and assessing risks and reporting these, both within the subsidiary abroad and to the Group functions. Group Compliance regularly reviews and assesses the implementation status of the Compliance program at the subsidiaries abroad. In cooperation with Group Internal Auditing, the Compliance Office regularly reviews the implementation of Group-wide compliance measures at the subsidiaries abroad. The audits regularly focus on the local compliance structure, the compliance measures taken, as well as the existence of corresponding compliance guidelines and processes.

The Compliance department reports regularly to the Executive Board, informing it of the status of compliance activities (including training status), compliance risks as well as serious compliance violations.

The Executive Board informs the supervisory bodies at least once a year about the key compliance issues.

→ *Statement on Corporate Governance*

Risk and opportunity management

The Executive Board, the Supervisory Board and the Finance Committee are regularly informed about the current risk portfolio of the Group and the individual companies. More detailed information can be found in the Report on Risks and Opportunities on page 120 et seq.

Avoidance of conflicts of interest

Within the framework of their work, all Executive Board and Supervisory Board members of Merck KGaA, Darmstadt, Germany, are exclusively committed to the interests of the company and pursue neither personal interests nor grant unjustified advantages to third parties.

Before an Executive Board member takes on honorary offices, board positions or other sideline activities, this must be approved by the Personnel Committee of the Board of Partners of E. Merck KG, Darmstadt, Germany. The Chairman of the Executive Board, Karl-Ludwig Kley, and the Chief Financial Officer, Matthias Zachert[1], are both members of the Executive Board of E. Merck KG, Darmstadt, Germany. This does not, however, lead to conflicts of interest.

In its report to the General Meeting, the Supervisory Board discloses any conflicts of interest involving its members and how they were dealt with. Consultancy agreements as well other service and work contracts of a Supervisory Board member with Merck KGaA, Darmstadt, Germany, require the approval of the Supervisory Board. In fiscal 2013, there were neither conflicts of interest nor consultancy agreements or other service or work contracts with Merck KGaA, Darmstadt, Germany, involving Supervisory Board members.

Adherence to environmental and safety standards

At the company, closed-loop thinking guides the way in which we address environmental concerns and environmental protection issues. To this end, we integrate precautionary measures into our planning processes. Our Environment, Health and Safety Policy with its principles and strategies implements the guidelines formulated by the national and international associations of the chemical industry in the Responsible Care guidelines. The Responsible Care Global Charter developed by the International Council of Chemical Associations (ICCA) in 2006 puts even more emphasis than before on overall responsibility for products, supply chains and the community. The company signed this expanded version of Responsible Care for the entire Group in February 2007. We report our ecological, economic and social performance transparently in accordance with the internationally recognized principles of the Global Reporting Initiative (GRI), taking into account the requirements of the German Sustainability Code and the principles of the UN Global Compact.

One of our major climate protection objectives is to achieve a 20% reduction in our greenhouse gas emissions by 2020 measured against the 2006 baseline.

Many guidelines specify how the sites and employees of the Group are to observe the principles in their daily work. The Group function Environment, Health, Safety, Security & Quality steers these global activities and ensures compliance with regulatory requirements, standards and business needs throughout the entire Group. In this way, Group-wide risks are minimized and continuous improvement is promoted in the areas of Environment, Health, Safety, Security, and Quality. Corporate Responsibility reports are also published at regular intervals.

[1] Mr. Zachert will leave the Executive Board of E. Merck KG, Darmstadt, Germany, as of March 31, 2014.

→ *Statement on Corporate Governance*

Procedures of the Executive Board, Supervisory Board, Board of Partners and its Committees

Members of the Executive Board of Merck KGaA, Darmstadt, Germany

Notes on memberships of statutory supervisory boards and comparable German and foreign supervisory bodies (section 285 No. 10 HGB in conjunction with section 125 (1) sentence 5 AktG).

Member	Memberships of (a) statutory supervisory boards and (b) comparable German and foreign supervisory bodies of corporations
Karl-Ludwig Kley Darmstadt, Chairman	(a) – Bertelsmann SE & Co. KGaA, Gütersloh – Bertelsmann Management SE, Gütersloh – BMW AG, Munich (Vice Chairman) – Deutsche Lufthansa AG, Cologne (since May 7, 2013) – 1. FC Köln GmbH & Co KGaA, Cologne (Chairman) (until June 30, 2013)
Kai Beckmann Darmstadt, Head of Group Human Resources	no board positions
Stefan Oschmann Munich, Responsible for the Biopharmaceuticals and Consumer Health divisions	no board positions
Bernd Reckmann Seeheim-Jugenheim, Responsible for the Performance Materials and Life Science Tools divisions	no board positions
Matthias Zachert[1] Bonn, Chief Financial Officer	no board positions

[1] Matthias Zachert will leave the Executive Board of Merck KGaA, Darmstadt, Germany, as of March 31, 2014.

The general partners with no equity interest (Executive Board) manage the business activities in accordance with the laws, the Articles of Association and the rules of procedure. They are appointed by E. Merck KG, Darmstadt, Germany, in accordance with the consent of a simple majority of the other general partners. The members of the Executive Board are jointly responsible for the entire management of the company. Certain tasks are assigned to individual Executive Board members based on a responsibility distribution plan. Each Executive Board member promptly informs the other members of any important actions or operations in his respective business area. The Executive Board is responsible for preparing the annual financial statements of Merck KGaA, Darmstadt, Germany, and of the Group as well as for approving the quarterly and half-year financial statements of the Group. In addition, the Executive Board ensures that all legal provisions, official regulations and the company's internal policies are abided by, and works to achieve compliance with them by all the companies of the Group. A Group-wide guideline defines in detail which transactions require prior Executive Board approval.

The Executive Board provides the Supervisory Board with regular, up-to-date and comprehensive reports about all company-relevant issues concerning strategy, planning, business developments, the risk situation, risk management and compliance. The rules of procedure of the Executive Board and of the Supervisory Board as well as a Supervisory Board resolution regulate further details on the information and reporting duties of the Executive Board vis-à-vis the Supervisory Board.

→ *Statement on Corporate Governance*

The Executive Board informs the Board of Partners and the Supervisory Board at least quarterly of the progress of business and the situation of the company. In addition, the Executive Board informs the aforementioned boards at least annually of the company's annual plans and strategic considerations.

The Executive Board passes its resolutions in meetings that are normally held twice a month.

Supervisory Board

Member	Memberships of (a) other statutory supervisory boards and (b) comparable German and foreign supervisory bodies of corporations
Rolf Krebs Mainz, Physician, Chairman	(a) – Ganymed Pharmaceuticals AG, Mainz (Chairman) – Merz GmbH & Co. KGaA, Frankfurt – Merz Pharmaceuticals GmbH, Frankfurt (b) – E. Merck KG, Darmstadt, Germany
Heiner Wilhelm Reinheim, Chairman of the Works Council of the Darmstadt site of Merck KGaA, Darmstadt, Germany, Vice Chairman (until April 30, 2013); as of May 1, 2013, Senior Manager Industrial Relations; Vice Chairman	no board positions
Crocifissa Attardo Darmstadt, Full-time member of the Works Council of Merck KGaA, Darmstadt, Germany, Darmstadt/Gernsheim	(b) – BKK of Merck KGaA, Darmstadt, Germany
Mechthild Auge Wehrheim, Full-time member of the Works Council of Merck KGaA, Darmstadt, Germany, Darmstadt/Gernsheim	no board positions
Johannes Baillou Vienna, Austria, Managing Partner of Bondi Immobilien-Consulting GmbH, Vienna	(b) – E. Merck KG, Darmstadt, Germany, Darmstadt [1] (Vice Chairman)
Frank Binder Monaco, Chief Executive Officer of Lloyd Yachts SAM, Monaco	(a) – Landbell AG für Rückhol-Systeme, Mainz (Chairman) (b) – E. Merck KG, Darmstadt, Germany, Darmstadt[1]
Wolfgang Büchele Römerberg, Chief Executive Officer of Kemira Oyj, Finland	(b) – E. Merck KG, Darmstadt, Germany, Darmstadt[1]
Michael Fletterich Gernsheim, Chairman of the Works Council of Merck KGaA, Darmstadt, Germany, Darmstadt/Gernsheim	no board positions
Jens Frank (since January 31, 2013) Rossdorf, Full-time member of the Works Council of Merck KGaA, Darmstadt, Germany, Darmstadt/Gernsheim	no board positions
Edeltraud Glänzer Hannover, Vice Chairman of the Managing Board of Industriegewerkschaft Bergbau, Chemie, Energie (IG BCE)	(a) – B. Braun Melsungen AG, Melsungen – Solvay Deutschland GmbH, Hannover (Vice Chairman)
Jürgen Glaser Bingen, Regional Director of the IG BCE Darmstadt	(b) – BKK of Merck KGaA, Darmstadt, Germany
Michaela Freifrau von Glenck [2] Zurich, Teacher	no board positions
Hans-Jürgen Leuchs Ingelheim, Graduate chemist	(b) – E. Merck KG, Darmstadt, Germany, Darmstadt[1] – Zeton B.V., Enschede, Netherlands – Zeton International Inc., Burlington ONT, Canada

→ *Statement on Corporate Governance*

Member	Memberships of (a) other statutory supervisory boards and (b) comparable German and foreign supervisory bodies of corporations
Albrecht Merck[2] Schriesheim, Commercial Director of the Castel Peter Winery, Bad Dürkheim	(b) – E. Merck KG, Darmstadt, Germany, Darmstadt[1]
Karl-Heinz Scheider Groß-Zimmern, Specialist Life Science Tools division Operations Strategy	no board positions
Theo Siegert Düsseldorf, Managing Partner of de Haen Carstanjen & Söhne, Düsseldorf	(a) – E.ON SE, Düsseldorf – Henkel AG & Co KGaA, Düsseldorf (b) – E. Merck KG, Darmstadt , Germany, Darmstadt[1] – DKSH Holding Ltd., Zurich, Switzerland

[1] Internal board position
[2] Members appointed by E. Merck KG, Darmstadt, Germany, according to Article 6 (5) of the Articles of Association

Tasks of the Supervisory Board of Merck KGaA, Darmstadt, Germany

The Supervisory Board performs a monitoring function. It supervises the management of the company by the Executive Board. In comparison with the supervisory board of a German stock corporation, the role of the supervisory board of a corporation with general partners (KGaA) is limited. This is due to the fact that the members of the Executive Board are personally liable partners and therefore are themselves responsible for the management of the company. In particular, the Supervisory Board is not responsible for appointing and dismissing general partners or for regulating the terms and conditions of their contracts. This is the responsibility of E. Merck KG, Darmstadt, Germany. Nor does the Supervisory Board have the authority to issue rules of procedure for the Executive Board or a catalogue of business transactions requiring approval. This authority likewise belongs to E. Merck KG, Darmstadt, Germany, (Article 13 (3) sentence 1 and (4) sentence 1 of the Articles of Association). However, the fact that the Supervisory Board has no possibilities to directly influence the Executive Board restricts neither its information rights nor audit duties. The Supervisory Board must monitor the Executive Board in terms of legality, regularity, usefulness, and economic efficiency. In particular, the Supervisory Board has the duty to examine the reports provided by the Executive Board. This includes regular reports on the intended business policy, as well as other fundamental issues pertaining to corporate planning, especially financial, investment and HR planning; the profitability of the Group; the progress of business; the risk situation; risk management (including compliance), and the internal auditing system. In addition, by means of consultation with the Executive Board, it creates the basis for supervision of the management of the company by the Supervisory Board according to section 111 (1) of the German Stock Corporation Act (AktG).

The Supervisory Board examines the annual financial statements and management report of Merck KGaA, Darmstadt, Germany, as well as the Group financial statements and the Group management report, taking into account in each case the reports of the auditor. Moreover, the Supervisory Board discusses the quarterly reports and the half-year financial report, taking into account in the latter case the report of the auditor on the audit review of the abridged financial statements and the interim management report of the Group. The adoption of the annual financial statements is not the responsibility of the Supervisory Board, but of the General Meeting. The Supervisory Board normally meets four times a year. Further meetings may be convened if demanded by a member of either the Supervisory Board or the Executive Board. As a rule, resolutions of the Supervisory Board are passed at meetings. At the instruction of the chairman, in exceptional cases a resolution may be passed by other means, details of which are given in the rules of procedure.

→ *Statement on Corporate Governance*

The members of the Board of Partners of E. Merck KG, Darmstadt, Germany, and of the Supervisory Board may be convened to a joint meeting if so agreed by the chairmen of the two boards.

The rules of procedure prescribe that the Supervisory Board may form committees as and when necessary. The Supervisory Board has formed a Nomination Committee comprising three shareholder representatives. Its members are Johannes Baillou, Rolf Krebs and Theo Siegert. The Nomination Committee is responsible for proposing to the Supervisory Board suitable candidates for its proposal to the Annual General Meeting. Apart from legal requirements and the recommendations of the German Corporate Governance Code, the "Objectives of the Supervisory Board with respect to its composition" are to be taken into consideration as well. Owing to the aforementioned limited authority, and since a corresponding need has not yet arisen, the Supervisory Board currently has no further committees.

The German Stock Corporation Act prescribes that the Supervisory Board of a publicly listed company must have at least one independent member on its Supervisory Board who has professional expertise in accounting or auditing. Theo Siegert satisfies these requirements and is furthermore the Chairman of the Finance Committee of the Board of Partners of E. Merck KG. Darmstadt, Germany.

Board of Partners of E. Merck KG, Darmstadt, Germany

Some of the responsibilities that lie with the supervisory board of a German stock corporation are fulfilled at the company by E. Merck KG, Darmstadt, Germany. This applies primarily to the Board of Partners of E. Merck KG, Darmstadt, Germany. Therefore, the Board of Partners and the composition and procedures of its committees are described in the following.

The Board of Partners has nine members. During fiscal 2013 and up until January 26, 2014, the Board of Partners was composed as follows:

Member	Memberships of (a) other statutory supervisory boards and (b) comparable German and foreign supervisory bodies of corporations
Frank Stangenberg-Haverkamp Darmstadt, Vice Chairman of the Executive Board and General Partner of E. Merck KG, Darmstadt, Germany, Chairman	(a) – Fortas AG, Rösrath (Chairman) – M.A.X. Automation AG, Düsseldorf (until November 5, 2013) (b) – Oras Invest Ltd, Helsinki/Finland (Member of the Board of Directors) – Travel Asset Group Ltd., London, United Kingdom (Chairman)
Johannes Baillou Vienna, Austria, Managing Partner of Bondi Immobilien-Consulting GmbH, Vienna	(a) – Merck KGaA, Darmstadt, Germany
Jon Baumhauer Munich, Chairman of the Executive Board and General Partner of E. Merck KG, Darmstadt, Germany	no board positions
Frank Binder Monaco, Managing Director of Lloyd Yachts SAM, Monaco	(a) – Merck KGaA, Darmstadt, Germany – Landbell AG für Rückhol-Systeme, Mainz (Chairman)
Wolfgang Büchele Römerberg, Chief Executive Officer of Kemira Oyj, Finland	(a) – Merck KGaA, Darmstadt, Germany
Rolf Krebs Mainz, Physician	(a) – Merck KGaA, Darmstadt, Germany – Ganymed Pharmaceuticals AG, Mainz (Chairman) – Merz GmbH & Co. KGaA, Frankfurt – Merz Pharmaceuticals GmbH, Frankfurt

→ *Statement on Corporate Governance*

Member	Memberships of (a) other statutory supervisory boards and (b) comparable German and foreign supervisory bodies of corporations
Hans-Jürgen Leuchs Ingelheim, Graduate chemist	(a) – Merck KGaA, Darmstadt, Germany (b) – Zeton B.V., Enschede, Netherlands – Zeton International Inc., Burlington ONT, Canada
Albrecht Merck Schriesheim, Commercial Director of the Castel Peter Winery, Bad Dürkheim	(a) – Merck KGaA, Darmstadt, Germany
Theo Siegert Düsseldorf, Managing Partner of de Haen Carstanjen & Söhne, Düsseldorf	(a) – Merck KGaA, Darmstadt, Germany – E.ON SE, Düsseldorf – Henkel AG & Co KGaA, Düsseldorf (b) – DKSH Holding Ltd., Zurich, Switzerland

On January 26, 2014 a new election of the Board of Partners was held. The Board of Partners now consists of the following members:

Member	Memberships of (a) other statutory supervisory boards and (b) comparable German and foreign supervisory bodies of corporations
Johannes Baillou Vienna, Austria, Vice Chairman of the Executive Board and General Partner of E. Merck KG, Darmstadt, Germany, Chairman	(a) – Merck KGaA, Darmstadt, Germany
Frank Stangenberg-Haverkamp Darmstadt, Chairman of the Executive Board and General Partner of E. Merck KG, Darmstadt, Germany	(a) – Fortas AG, Rösrath (Chairman) – M.A.X. Automation AG, Düsseldorf (until November 5, 2013) (b) – Oras Invest Ltd, Helsinki/Finland (Member of the Board of Directors) – Travel Asset Group Ltd., London, United Kingdom (Chairman)
Wolfgang Büchele Römerberg, Chief Executive Officer of Kemira Oyj, Finland	(a) – Merck KGaA, Darmstadt, Germany
Siegfried Karjetta Darmstadt, Physician	no board positions
Albrecht Merck Schriesheim, Commercial Director of the Castel Peter Winery, Bad Dürkheim	(a) – Merck KGaA, Darmstadt, Germany
Helga Rübsamen-Schaeff Langenburg, Managing Director of AiCuris GmbH & Co. KG, Wuppertal	no board positions
Gregor Schulz Umkirch, Chairman of the Board of Biotest AG, Dreieich	(b) – E. Merck KG, Darmstadt, Germany – Biotest US Corporation, Boca Raton/USA (President) – Biotest Pharmaceuticals Corporation, Boca Raton/USA – Biotest (UK) Ltd., Solihull/UK – Biotest Seralc NV, Evere/Belgium
Theo Siegert Düsseldorf, Managing Partner of de Haen Carstanjen & Söhne, Düsseldorf	(a) – Merck KGaA, Darmstadt, Germany – E.ON SE, Düsseldorf – Henkel AG & Co KGaA, Düsseldorf (b) – DKSH Holding Ltd., Zurich, Switzerland
Tobias Thelen Munich, Managing Partner at Altmann Analytik GmbH & Co. KG, Munich	no board positions

→ *Statement on Corporate Governance*

Tasks of the Board of Partners of E. Merck KG, Darmstadt, Germany

The Board of Partners supervises the Executive Board in its management of the company. It informs itself about the business matters of Merck KGaA, Darmstadt, Germany, and may inspect and examine the company's accounts and other business documents, and the assets for this purpose. According to Article 13 (4) of the Articles of Association of Merck KGaA, Darmstadt, Germany, the Executive Board requires the approval of E. Merck KG, Darmstadt, Germany, for transactions that are beyond the scope of the Group's ordinary business activities. For such transactions to be approved, approval must first be obtained from the Board of Partners of E. Merck KG, Darmstadt, Germany. The Board of Partners convenes as and when necessary; however, it meets at least four times a year. The members of the Executive Board of Merck KGaA, Darmstadt, Germany, are invited to all meetings of the Board of Partners, unless the Board of Partners resolves otherwise in individual cases. The members of the Board of Partners may convene a joint meeting with the Supervisory Board of Merck KGaA, Darmstadt, Germany, if so agreed by the chairmen of the two boards.

The Board of Partners may confer the responsibility for individual duties to committees. Currently the Board of Partners has three committees in place: the Personnel Committee, the Finance Committee, and the Research and Development Committee.

Personnel Committee

The Personnel Committee has four members. During fiscal 2013 and up until January 26, 2014 these were: Frank Stangenberg-Haverkamp (Chairman), Jon Baumhauer, Rolf Krebs and Theo Siegert. As of January 26, 2014, the Personnel Committee comprises Frank Stangenberg-Haverkamp (Chairman), Johannes Baillou, Wolfgang Büchele and Theo Siegert.

The Personnel Committee meets at least twice a year. Further meetings are convened as and when necessary. Meetings of the Personnel Committee are attended by the Chairman of the Executive Board of Merck KGaA, Darmstadt, Germany, unless the Committee decides otherwise.

The Personnel Committee is responsible for, among other things, the following decisions concerning members and former members of the Executive Board: contents of and entry into employment contracts and pension contracts, granting of loans and advance payments, changes to the compensation structure and adaptation of compensation, approval for taking on honorary offices, board positions and other sideline activities, as well as division of responsibilities within the Executive Board of Merck KGaA, Darmstadt, Germany. The Personnel Committee passes its resolutions by a simple majority – in matters concerning the Chairman of the Executive Board unanimity is required. The Chairman of the Committee regularly informs the Board of Partners of its activities.

Finance Committee

The Finance Committee has four members. During fiscal 2013 and up until January 26, 2014, these were: Theo Siegert (Chairman), Johannes Baillou, Wolfgang Büchele and Frank Stangenberg-Haverkamp. As of January 26, 2014, the Finance Committee comprises Theo Siegert (Chairman), Johannes Baillou, Wolfgang Büchele and Tobias Thelen.

The Finance Committee holds at least four meetings a year, at least one of which is a joint meeting with the auditor of Merck KGaA, Darmstadt, Germany. Further meetings are convened as and when necessary. Meetings of the Finance Committee are attended by the Chief Financial Officer of Merck KGaA, Darmstadt, Germany. Other members of the Executive Board of Merck KGaA, Darmstadt, Germany, may attend the meetings upon request by the Committee. These meetings regularly include the Chairman of the Executive Board. The Finance Committee is responsible for, among other things, analyzing and discussing the annual financial statements and the respective report of the auditor of the annual financial statements and management report, as well as the half-year financial report (including the report of the auditors for the audit review of the

→ *Statement on Corporate Governance*

abridged financial statements and interim management report contained in the half-year report) and the quarterly reports. Furthermore, the Finance Committee recommends to the Chairman of the Supervisory Board annual audit focuses for the auditors. It also recommends an auditor for the annual financial statements and management report as well as auditors for the audit review of the abridged financial statements and interim management report contained in the half-year financial report for the Board's corresponding suggestion to the General Meeting. In addition, the Finance Committee is concerned with the financial position, results of operations and liquidity of the company, as well as accounting, internal auditing, risk management and compliance issues. Upon request of the Board of Partners, the Finance Committee examines investment projects that must be approved by the Board of Partners and provides recommendations pertaining thereto.

Research and Development Committee

During fiscal 2013 and up until January 26, 2014, the Research and Development Committee had three members: Rolf Krebs (Chairman), Hans-Jürgen Leuchs and Frank Stangenberg-Haverkamp. Since January 26, 2014, the Research and Development Committee has consisted of four people, namely Johannes Baillou, Siegfried Karjetta, Helga Rübsamen-Schaeff, and Gregor Schulz.

The Research and Development Committee is convened as and when necessary, but holds meetings at least twice a year. Meetings of the Research and Development Committee are attended by members of the Executive Board of Merck KGaA, Darmstadt, Germany, upon request of the Committee. These meetings regularly include the Chairman of the Executive Board as well as the members of the Executive Board responsible for the Pharmaceuticals and Chemicals divisions. The Chairman of the Research and Development Committee is responsible, among other things, for analyzing and discussing the research activities of Pharmaceuticals and Chemicals. The Pharmaceuticals and Chemicals divisions present the status of their respective research to the Research and Development Committee in special meetings. The Committee deals thoroughly with the pharmaceutical research progress report and with developments of new medicines in Phases II and III of clinical research. The Chairman of the Committee reports to the Board of Partners on the insights gained from the meetings held.

Report of the Supervisory Board

The Supervisory Board again properly executed its duties in 2013 in accordance with the law as well as the company's Articles of Association and rules of procedure. In particular, the Supervisory Board monitored the work of the Executive Board diligently and regularly.

Cooperation with the Executive Board

The cooperation with the Executive Board was characterized by intensive, trustworthy exchange. During fiscal 2013, the Executive Board provided the Supervisory Board with regular written and verbal reports on the business development of Merck KGaA, Darmstadt, Germany, and the Group. In particular, the Supervisory Board was informed about the market and sales situation of the company against the background of macroeconomic development, the financial position of the company and its subsidiaries, along with their earnings development, as well as corporate planning. Within the scope of quarterly reporting, the sales and operating results were presented for the Group as a whole, and broken down by division. Aside from the Supervisory Board meetings, the Chairman of the Supervisory Board also maintained and continues to maintain a regular exchange of information with the Chairman of the Executive Board.

Key topics of the Supervisory Board meetings

Five Supervisory Board meetings were held in fiscal 2013. Four of the meetings were ordinary Supervisory Board meetings while the fifth one on December 3, 2013 was an extraordinary meeting. At these meetings, the Supervisory Board discussed the reports of the Executive Board in detail and discussed company developments and strategic issues together with the Executive Board.

At the meeting held on March 6, 2013, the Executive Board first reported on business performance in the fourth quarter of 2012. Moreover, the status of the "Fit for 2018" program was dealt with, as was the report by the head of Group Internal Auditing on the activities of Internal Auditing in 2012. In addition, the Supervisory Board intensively addressed the annual financial statements and consolidated financial statements for 2012 and the corresponding management reports. The auditor explained the audit report. The Executive Board reported on the financial statements. Furthermore, the Supervisory Board resolved upon its objectives, the Statement of Compliance with the German Corporate Governance Code as well as the Statement on Corporate Governance, which simultaneously includes the joint report of the Executive Board and Supervisory Board. The Supervisory Board also approved the proposals to be made to the Annual General Meeting. Lastly, the Executive Board presented the plans for fiscal 2013.

The meeting held on May 7, 2013 focused on current business developments in the first quarter of 2013. The report of the Research and Development Committee of the Board of Partners of E. Merck KG, Darmstadt, Germany, was a further focus of the meeting. The Supervisory Board also dealt with the report of the Group compliance officer and the report of the Group data privacy officer.

At its meeting on July 31, 2013, the Supervisory Board focused intensively on the report of the Executive Board on business performance in the second quarter of 2013. In addition, KPMG explained the report on the first half of 2013. Risk management within the company was a further topic. The head of Risk Management presented the status report for the first half of 2013. No risks that threaten the continued existence of the company were identified.

At its fourth meeting on November 12, 2013, the Supervisory Board discussed the results of the efficiency review conduced in 2013. Furthermore, the Supervisory Board dealt with the report of the Executive Board on the third quarter of 2013. The 2013 status reports by the head of Internal Auditing and the Group compliance officer were additional topics of focus. The report of the Research and Development Committee Chemicals and the report on the Group Executive Conference were also discussed. In particular, the reports focused on the company's strategic direction.

→ *Report of the Supervisory Board*

Annual financial statements

The annual financial statements of Merck KGaA, Darmstadt, Germany, the consolidated financial statements of the Group, and the management reports for Merck KGaA, Darmstadt, Germany, and the Group, including the accounts, were audited by KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin. The auditors issued an unqualified audit opinion on the annual financial statements and management report for Merck KGaA, Darmstadt, Germany, in accordance with German Auditing Standards. For the consolidated financial statements prepared in accordance with International Financial Reporting Standards, the auditors issued the auditor's report, reproduced in the Annual Report of the Group. In addition, the auditors audited the calculation of the participation of Merck KGaA, Darmstadt, Germany, in the profits of E. Merck KG, Darmstadt, Germany, in accordance with Art. 27 (2) of the Articles of Association. The annual financial statements of Merck KGaA, Darmstadt, Germany, the consolidated financial statements of the Group, the management reports for Merck KGaA, Darmstadt, Germany, and the Group, and the proposal by the Executive Board for the appropriation of the net retained profit were presented and distributed to the Supervisory Board, together with the auditor's reports.

In accordance with Art. 14 (2) of the Articles of Association, the Supervisory Board also examined the annual financial statements of Merck KGaA, Darmstadt, Germany. and the management report for Merck KGaA, Darmstadt, Germany, the proposal for the appropriation of net retained profit and the auditor's report presented in accordance with Article 27 (2) of the Articles of Association. It also examined the consolidated financial statements of the Group as well as the management report for the Group, and took note of the auditor's report of KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin.

The discussion of the relevant agenda item at the Supervisory Board's meeting on February 28, 2014 to approve the financial statements was also attended by the auditors who sign the audit opinion on the annual financial statements of Merck KGaA, Darmstadt, Germany, and the consolidated financial statements of the Group. These auditors furthermore reported on their audit at this meeting.

The Supervisory Board took note of and approved the results of the audit. On completion of its examination, the Supervisory Board raised no objections and thus approved the annual financial statements and management report for Merck KGaA, Darmstadt, Germany, the consolidated financial statements of the Group and the management report for the Group prepared by the Executive Board, as well as the report presented by the auditors in accordance with Article 27 (2) of the Articles of Association. Following its own examination of the situation, the Supervisory Board gave its consent to the proposal of the Executive Board for the appropriation of net retained profit.

Corporate governance and Statement of Compliance

Corporate governance is a topic of high priority for the Supervisory Board. In its own estimation, the Supervisory Board has an adequate number of independent members. There were no conflicts of interest, as defined by the German Corporate Governance Code, involving Supervisory Board members during 2013. After addressing corporate governance topics in detail, the Executive Board and Supervisory Board resolved to adopt and issue the updated Statement of Compliance on February 17, 2014 (Executive Board) and on February 28, 2014 (Supervisory Board) and jointly issued it on February 28, 2014 in accordance with section 161 of the German Stock Corporation Act. The statement is permanently available on the website of Merck KGaA, Darmstadt, Germany (www.emdgroup.com → Investors → Corporate Governance). More information about corporate governance at Merck KGaA, Darmstadt, Germany, including the compensation of the Executive Board and Supervisory Board is given in the Statement of Compliance on pages 151 et seq. of the Annual Report.

→ *Report of the Supervisory Board*

Committees

Apart from the Nomination Committee, the Supervisory Board of Merck KGaA, Darmstadt, Germany, currently has no further committees on account of the special features that apply to the Supervisory Board of a corporation with general partners (KGaA) under German company law and because a corresponding need for this has not emerged to date. The members of the Nomination Committee held meetings on November 8, 2013, and on February 6, 2014. In order to prepare for the election of the shareholder representative members of the Supervisory Board by the Annual General Meeting on May 9, 2014, they spoke with one another about the professional and personal qualifications of suitable candidates for the Supervisory Board. No report is given on the work of further committees.

Personnel matters

With the exception of Theo Siegert, who was absent from the meeting on May 7, 2013, all the Supervisory Board members attended all the ordinary Supervisory Board meetings. With the exception of Jens Frank and Karl-Heinz Scheider, all Supervisory Board members also attended the extraordinary Supervisory Board meeting. The following changes in the composition of the Supervisory Board took place in 2013: Effective January 31, 2013, Mr. Jens Frank was appointed by the court as a new member of the Supervisory Board. On conclusion of the Annual General Meeting on April 26, 2013, the terms of office of the Supervisory Board members elected at the 2008 Annual General Meeting Johannes Baillou, Frank Binder, Rolf Krebs and Theo Siegert as well as the Supervisory Board members elected at the 2009 Annual General Meeting Wolfgang Büchele and Hans-Jürgen Leuchs expired. All of these Supervisory Board members were reelected by the 2013 Annual General Meeting to serve until the end of the next Annual General Meeting. There were no new appointments to bodies beyond those described in the foregoing.

Darmstadt, February 28, 2014

The Supervisory Board of Merck KGaA, Darmstadt, Germany

Rolf Krebs
Chairman

Objectives of the Supervisory Board with respect to its composition

Initial situation

According to section 5.4.1 (2) and (3) of the German Corporate Governance Code, the Supervisory Board shall specify concrete objectives regarding its composition which, while considering the specifics of the enterprise, take into account the international activities of the enterprise, potential conflicts of interest, the number of independent Supervisory Board members, an age limit to be specified for the members of the Supervisory Board, and diversity.

General notes on the composition of the Supervisory Board

The Supervisory Board of Merck KGaA, Darmstadt, Germany, currently consists of 16 members, eight of whom represent the shareholders and a further eight who represent the employees. The eight employee representative members are elected by employee delegates pursuant to the provisions of the German Co-determination Act (Mitbestimmungsgesetz "MitbestG"). These consist of six company employees, including a senior executive, as well as two union representatives. The Supervisory Board has no statutory proposal right with respect to electing the delegates or employee representatives. Owing to a delegation right of E. Merck Beteiligungen KG, Darmstadt, Germany, two of the eight shareholder representatives are specified. The Supervisory Board likewise has no statutory proposal right with respect to exercising this delegation right. The remaining six shareholder representatives are elected by the General Meeting. In accordance with section 124 (3) sentence 1 AktG, the Supervisory Board shall propose to the General Meeting Supervisory Board members for election. These proposals require a majority of the votes of the shareholder representative members of the Supervisory Board. The next scheduled election to the Supervisory Board shall take place at the upcoming 2014 General Meeting. The General Meeting is not required to follow the election proposals. The appointment objectives that the Supervisory Board sets forth below therefore do not represent requirements to be met by those eligible to elect or to delegate members. Instead, they are intended to express the objectives pursued by the Supervisory Board in office with regard to its advisory and monitoring functions.

Objectives of the Supervisory Board with respect to its composition

In accordance with section 5.4.1 (2) of the German Corporate Governance Code, the Supervisory Board has specified the following objectives with respect to its composition and reports on the status of their implementation below.

Expertise and diversity

Professional qualifications and personal expertise are the two most important prerequisites for appointments to seats on the Supervisory Board. When proposing Supervisory Board candidates for election or delegation, the Supervisory Board will always give top priority to these prerequisites, which are essential for fulfilling its legal duties.

Overall, the Supervisory Board's policy is to optimally meet its monitoring and advisory duties by having a diversity of members. Diversity includes, in particular, internationality as well as different experience backgrounds and career paths. The proportion of women on the Supervisory Board is also considered to be an aspect of diversity. When preparing proposals for election or delegation, due consideration shall be given in individual cases to the extent to which different, yet complementary professional profiles, career and life experiences as well as appropriate representation of both genders can benefit the work of the Supervisory Board. Additionally, the Supervisory Board shall support the Executive Board in its efforts to increase diversity within the company.

→ *Objectives of the Supervisory Board with respect to its composition*

In-depth knowledge of the fields relevant to the company

The Supervisory Board shall have at least four members with in-depth knowledge and experience of fields that are important to the company, including at least one expert in pharmaceuticals and one in chemicals.

The company is currently meeting this objective for the composition of the Supervisory Board. At present, the Supervisory Board has more than four members who have in-depth knowledge and experience of the pharmaceutical and chemical industries. More than four Supervisory Board members also have executive experience in companies that operate specifically in the pharmaceutical and/or chemical sectors.

Management experience

The Supervisory Board shall have at least three members who have experience in managing or supervising a medium or large-sized company.

The Supervisory Board has more than three members who have the corresponding experience. This includes both Supervisory Board members who were or still are management board members or directors in such companies, as well as Supervisory Board members who have gained experience in supervisory bodies of German and/or foreign companies of this size.

Family company

The Supervisory Board shall have at least one member who has experience in managing medium- or large-sized family-owned companies.

The Supervisory Board currently has multiple members who have the appropriate management experience in family-owned companies of this size.

Internationality

The Supervisory Board shall have at least three members with business experience in the main sales markets of Merck KGaA, Darmstadt, Germany. Currently, the main sales markets of Merck KGaA, Darmstadt, Germany, are Europe, North and Latin America, and Asia-Pacific.

The present composition of the Supervisory Board satisfies this objective. More than three Supervisory Board members have entrepreneurial experience in Europe, covering a wide range of countries. More than three Supervisory Board members have experience in management positions in companies that operate globally. Two of these members worked in the United States, one in the United Kingdom, and one was responsible for the Asian region.

Women on the Supervisory Board

Four women are currently members of the Supervisory Board of Merck KGaA, Darmstadt, Germany. This corresponds to 25% of the Supervisory Board. When nominating candidates for election to the Supervisory Board or making proposals for delegation, the Supervisory Board shall examine whether the percentage of women can be increased by suitable candidates.

The Supervisory Board currently consists of 25% women, which it considers a satisfactory percentage. This is based on both the percentage of women in management positions at the company, as well as the fact that the supervisory boards of other companies have a comparable percentage of women.

→ *Objectives of the Supervisory Board with respect to its composition*

Number of independent members/no material conflicts of interest

The Supervisory Board is to have an adequate number of independent members. Assuming that the status of being an employee representative per se does not justify doubts of the independence criteria within the meaning of section 5.4.2 of the German Corporate Governance Code, normally all employee representatives should be independent within the meaning of the Code. In any case, at least four of the shareholder representatives on the Supervisory Board should be independent. According to the Articles of Association of Merck KGaA, Darmstadt, Germany, six members representing the shareholders are to be elected by the General Meeting and two members are to be delegated. Taking this into account, the Supervisory Board considers four shareholder representatives to be an appropriate number of independent members. In the Supervisory Board's estimation, the objectives concerning independent members are currently met. In particular, the Supervisory Board does not believe that membership of the Board of Partners of E. Merck KG , Darmstadt, Germany, conflicts with independence. The Board of Partners exists complementary to the competencies and the activities of the Supervisory Board. It is not to be expected that this will lead to material and not merely temporary conflicts of interest. It should also be taken into account that due to its substantial capital investment and unlimited personal liability, E. Merck KG, Darmstadt, Germany, has a strong interest in the businesses of Merck KGaA, Darmstadt, Germany, operating efficiently and in compliance with procedures, counteracting from the outset conflicts of interest between E. Merck KG, Darmstadt, Germany, and Merck KGaA, Darmstadt, Germany, and thus also corresponding conflicts of interest between the members of the respective corporate bodies.

Moreover, no one shall be proposed for election to the Supervisory Board who simultaneously serves on a body of or advises a major competitor of the company, or owing to another function, e.g. advisor to major contract partners of the company, could potentially become involved in a conflict of interest. No Supervisory Board member serves on a body of or advises a major competitor, or provides consultancy services thereto. No Supervisory Board member performs a function that could lead to a lasting conflict of interest.

No age limit

An age limit for Supervisory Board members is not specified since age is not a criterion for qualifications and expertise. Moreover, we do not wish to forgo the many years of experience of Supervisory Board members.

The achievement of the aforementioned objectives shall be pursued initially until 2015, taking into account applicable law within the scope of elections and reelections, delegations as well as court appointments of replacement members if these become necessary. All Supervisory Board members will correspondingly influence those eligible to elect or delegate. Taking into consideration the aforementioned criteria and in accordance with its duties under German stock corporation law, the Supervisory Board proposes to the General Meeting the candidates it believes to be best suited in each case and will continue to do so in the future.

Every year, the Supervisory Board will provide information in the Annual Report on the status of implementing its objectives.

#03

2013 Consolidated Financial Statements

Consolidated Income Statement

€ million	Note	2013	2012
Sales	→ 22	10,700.1	10,740.8
Royalty, license and commission income	→ 23	395.0	432.1
Total revenues		**11,095.1**	**11,172.9**
Cost of sales	→ 24	–2,992.5	–3,157.7
Gross margin		**8,102.6**	**8,015.2**
Marketing and selling expenses	→ 25	–2,326.5	–2,410.8
Royalty, license and commission expenses	→ 26	–567.0	–579.8
Administration expenses	→ 27	–562.4	–552.2
Other operating expenses and income	→ 28	–718.1	–1,125.9
Research and development costs	→ 29	–1,504.3	–1,511.3
Amortization of intangible assets	→ 30	–813.5	–871.6
Operating result		**1,610.8**	**963.6**
Financial result	→ 31	–222.2	–254.6
Profit before income tax		**1,388.6**	**709.0**
Income tax	→ 32	–179.5	–130.0
Profit after tax		**1,209.1**	**579.0**
of which attributable to Merck KGaA, Darmstadt, Germany, shareholders (net income)		1,202.2	566.7
of which attributable to non-controlling interests	→ 33	6.9	12.3
Earnings per share (in €)	→ 34		
basic		5.53	2.61
diluted		5.53	2.61

Consolidated Statement of Comprehensive Income

€ million	Note	2013	2012
Profit after tax		**1,209.1**	**579.0**
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	→ **49**	98.8	–304.3
Deferred taxes	→ **32**	–16.3	37.2
Changes recognized in equity		**82.5**	**–267.1**
		82.5	**–267.1**
Items of other comprehensive income that may be reclassified to profit or loss in subsequent periods:			
Available-for-sale financial assets			
Fair value adjustments		1.8	0.4
Reclassification to profit or loss		–1.6	–
Deferred taxes	→ **32**	–0.4	–
Changes recognized in equity		**–0.2**	**0.4**
Derivative financial instruments			
Fair value adjustments		125.5	3.6
Reclassification to profit or loss		–26.5	78.4
Reclassification to assets		–	–
Deferred taxes	→ **32**	–25.3	–16.9
Changes recognized in equity		**73.7**	**65.1**
Exchange differences on translating foreign operations			
Changes taken directly to equity		–204.9	–34.6
Reclassification to profit or loss		–8.9	–
Changes recognized in equity		**–213.8**	**–34.6**
		–140.3	**30.9**
Other comprehensive income		**–57.8**	**–236.2**
Comprehensive income		**1,151.3**	**342.8**
of which attributable to Merck KGaA, Darmstadt, Germany, shareholders		1,154.6	333.7
of which attributable to non-controlling interests	→ **33**	–3.3	9.1

Consolidated Balance Sheet

€ million	Note	Dec. 31, 2013	Dec. 31, 2012
Current assets			
Cash and cash equivalents	→ 35	980.8	729.7
Current financial assets	→ 36	2,410.5	1,797.9
Trade accounts receivable	→ 37	2,021.4	2,114.6
Inventories	→ 38	1,474.2	1,533.9
Other current assets	→ 39	360.7	271.5
Income tax receivables	→ 40	109.8	178.5
Assets held for sale	→ 4	27.1	–
		7,384.5	**6,626.1**
Non-current assets			
Intangible assets	→ 41	9,867.2	10,944.5
Property, plant and equipment	→ 42	2,647.2	2,953.6
Non-current financial assets	→ 43	77.8	97.1
Other non-current assets	→ 39	105.5	75.4
Deferred tax assets	→ 32	736.4	946.6
		13,434.1	**15,017.2**
Total assets		**20,818.6**	**21,643.3**
Current liabilities			
Current financial liabilities	→ 44	440.4	1,091.4
Trade accounts payable	→ 45	1,364.1	1,288.3
Other current liabilities	→ 46	1,134.5	1,096.2
Income tax liabilities	→ 47	465.1	401.4
Current provisions	→ 48	494.7	684.3
Liabilities directly related to assets held for sale	→ 4	–	–
		3,898.8	**4,561.6**
Non-current liabilities			
Non-current financial liabilities	→ 44	3,257.5	3,362.1
Other non-current liabilities	→ 46	5.6	9.4
Non-current provisions	→ 48	1,011.1	891.7
Provisions for pensions and other post-employment benefits	→ 49	910.9	1,211.7
Deferred tax liabilities	→ 32	665.5	1,192.0
		5,850.6	**6,666.9**
Equity	→ 50		
Equity capital		565.2	565.2
Reserves		9,341.1	8,552.3
Gains/losses recognized immediately in equity		1,113.7	1,243.9
Equity attributable to Merck **KGaA, Darmstadt, Germany, shareholders**		**11,020.0**	**10,361.4**
Non-controlling interests		49.2	53.4
		11,069.2	**10,414.8**
Total liabilities and equity		**20,818.6**	**21,643.3**

Consolidated Cash Flow Statement

€ million	Note	2013	2012
Profit after tax		**1,209.1**	**579.0**
Depreciation/amortization/impairment losses/reversals of impairments		1,458.4	1,396.6
Changes in inventories		–58.4	140.6
Changes in trade accounts receivable		–45.0	186.2
Changes in trade accounts payable		128.2	198.8
Changes in provisions		–203.0	378.6
Changes in other assets and liabilities		–260.4	–383.5
Neutralization of gain/loss on disposals of assets		–27.5	–31.6
Other non-cash income and expenses		24.1	7.5
Net cash flows from operating activities	→ 53	**2,225.5**	**2,472.2**
Investments in intangible assets		–109.6	–144.2
Investments in property, plant and equipment		–407.0	–329.1
Acquisitions		–15.1	–20.6
Investments in non-current financial assets		–15.0	–72.4[1]
Investments in current financial assets		–625.6	–685.2[1]
Disposal of non-current assets		297.8	93.6
Net cash flows from investing activities	→ 54	**–874.5**	**–1,157.9**
Dividend payments to Merck KGaA, Darmstadt, Germany, shareholders		–109.9	–96.9[1]
Dividend payments to non-controlling interests		–3.7	–5.7[1]
Dividend payments to E. Merck KG, Darmstadt, Germany		–304.5	–326.5[1]
New borrowings of financial liabilities from E. Merck KG, Darmstadt, Germany		128.8	32.6[1]
Payments from transactions with no change of control		–0.3	–15.0
Repayment of bonds		–750.0	–1,000.0
New borrowings of other current and non-current financial liabilities		64.6	37.5
Repayments of other current and non-current financial debt liabilities		–97.7	–145.4
Net cash flows from financing activities		**–1,072.7**	**–1, 519.4**
Changes in cash and cash equivalents		**278.3**	**–205.1**
Changes in cash and cash equivalents due to currency translation		–27.2	–3.0
Cash and cash equivalents as of January 1		729.7	937.8
Cash and cash equivalents as of December 31		980.8	729.7
Plus cash and cash equivalents included in assets held for sale		–	–
Cash and cash equivalents as of December 31 (consolidated balance sheet)	→ 35	**980.8**	**729.7**

[1]Previous year's figures have been adjusted, see the Notes to the consolidated cash flow statement

Consolidated Statement of Changes in Net Equity

For details see Note [50]

	Equity capital			Retained earnings	
€ million	General partner's equity Merck KGaA, Darmstadt, Germany	Subscribed capital Merck KGaA, Darmstadt, Germany	Capital reserves (share premium) Merck KGaA, Darmstadt, Germany	Retained earnings/ Net retained profit	Remeasurement of defined benefit plans
Balance as of January 1, 2012	**397.2**	**168.0**	**3,813.7**	**5,237.1**	**–378.2**
Profit after tax	–	–	–	566.7	–
Other comprehensive income	–	–	–	–	–266.7
Comprehensive income	**–**	**–**	**–**	**566.7**	**–266.7**
Dividend payments	–	–	–	–96.9	–
Profit transfers to/from E. Merck KG, Darmstadt, Germany, including changes in reserves	–	–	–	–304.5	–
Transactions with no change of control	–	–	–	–15.3	–
Changes in scope of consolidation/Other	–	–	–	–3.2	–0.4
Balance as of December 31, 2012	**397.2**	**168.0**	**3,813.7**	**5,383.9**	**–645.3**
Balance as of January 1, 2013	**397.2**	**168.0**	**3,813.7**	**5,383.9**	**–645.3**
Profit after tax	–	–	–	1,202.2	–
Other comprehensive income	–	–	–	–	82.6
Comprehensive income	**–**	**–**	**–**	**1,202.2**	**82.6**
Dividend payments	–	–	–	–109.9	–
Profit transfers to/from E. Merck KG, Darmstadt, Germany, including changes in reserves	–	–	–	–383.0	–
Transactions with no change of control	–	–	–	–3.1	–
Changes in scope of consolidation/Other	–	–	–	–	–
Balance as of December 31, 2013	**397.2**	**168.0**	**3,813.7**	**6,090.1**	**–562.7**

Gains/losses recognized in equity					
Available-for-sale financial assets	Derivative financial instruments	Currency translation difference	Equity attributable to Merck KGaA, Darmstadt, Germany, shareholders	Non-controlling interests	Total equity
0.8	**–94.6**	**1,304.0**	**10,448.0**	**46.3**	**10,494.3**
–	–	–	566.7	12.3	579.0
0.4	65.1	–31.8	–233.0	–3.2	–236.2
0.4	**65.1**	**–31.8**	**333.7**	**9.1**	**342.8**
–	–	–	–96.9	–5.7	–102.6
–	–	–	–304.5	–	–304.5
–	–	–	–15.3	0.3	–15.0
–	–	–	–3.6	3.4	–0.2
1.2	**–29.5**	**1,272.2**	**10,361.4**	**53.4**	**10,414.8**
1.2	**–29.5**	**1,272.2**	**10,361.4**	**53.4**	**10,414.8**
–	–	–	1,202.2	6.9	1,209.1
–0.2	73.7	–203.7	–47.6	–10.2	–57.8
–0.2	**73.7**	**–203.7**	**1,154.6**	**–3.3**	**1,151.3**
–	–	–	–109.9	–3.7	–113.6
–	–	–	–383.0	–	–383.0
–	–	–	–3.1	2.8	–0.3
–	–	–	–	–	–
1.0	**44.2**	**1,068.5**	**11,020.0**	**49.2**	**11,069.2**

Notes to the Group accounts

General

(1) Company information

The accompanying consolidated financial statements as at December 31, 2013 have been prepared with Merck KGaA, Frankfurter Strasse 250, 64293 Darmstadt, Germany, which manages the operations of the Group, as parent company. In accordance with the provisions of the German financial reporting disclosure law (Publizitätsgesetz), consolidated financial statements are also prepared for E. Merck KG, Darmstadt, Germany, the ultimate parent company and general partner of Merck KGaA, Darmstadt, Germany, with an equity interest of 70.27% as of December 31, 2013. These include Merck KGaA, Darmstadt, Germany, and its subsidiaries. The authoritative German versions of these financial statements are filed with the German Federal Gazette (Bundesanzeiger) and can be accessed at www.bundesanzeiger.de.

(2) Reporting principles

The consolidated financial statements of the Group have been prepared in accordance with consistent accounting policies and in euros, the reporting currency. Pursuant to section 315a of the German Commercial Code (HGB), the International Financial Reporting Standards in force on the reporting date and adopted by the European Union as issued by the International Accounting Standards Board and the IFRS Interpretations Committee (IFRS and IAS, as well as IFRIC and SIC) have been applied.

The following rule was applied in advance as of fiscal 2013:
→ Amendment to IAS 36 "Impairment of Assets"
This amendment was published in May 2013 by the International Accounting Standards Board, adopted by the European Union on December 20, 2013, and is effective for reporting periods beginning on or after January 1, 2014. The changes that early application involves are described in Note [5] "Accounting policies".

The following rules take effect as of fiscal 2013:
→ IFRS 13 "Fair Value Measurement"
→ Amendment to IAS 1 "Presentation of Financial Statements"
→ Amendment to IAS 12 "Income Taxes"
→ Revised version of IAS 19 "Employee Benefits"
→ Amendments to IFRS 1 "First-time Adoption of International Financial Reporting Standards"
→ Amendment to IFRS 7 "Financial Instruments: Disclosures"
→ "Improvements to International Financial Reporting Standards 2009–2011 Cycle"
→ IFRIC 20 "Stripping Costs in the Production Phase of a Surface Mine"

As of fiscal 2012, the Group began applying the revised version of IAS 19 "Employee Benefits" in advance.

IFRS 13 "Fair Value Measurement" provides a uniform definition of fair value as well as principles for measuring fair value. It stipulates how fair value is to be measured when another standard requires fair value measurement or disclosures about fair value. Moreover, the application of IFRS 13 leads to more extensive disclosures in the notes to the accounts.

→ *General*

In accordance with the amendment to IAS 1, the components of the statement of comprehensive income have been grouped into items based on whether they will be reclassified to profit or loss in the future or will never be reclassified to profit or loss.

The disclosures required by IFRS 7 about the effect of netting arrangements on the financial position have been included in the consolidated financial statements.

Apart from the early application of the revised version of IAS 19, none of the other new standards had a material effect on the consolidated financial statements.

The following standards take effect as of fiscal 2014:

→ IFRS 10 "Consolidated Financial Statements"
→ IFRS 11 "Joint Arrangements"
→ IFRS 12 "Disclosure of Interests in Other Entities"
→ Amendments to IAS 27 "Separate Financial Statements"
→ Amendment to IAS 28 "Investments in Associates and Joint Ventures"
→ Amendment to IAS 32 "Financial Instruments: Presentation"
→ Amendment to IAS 39 "Financial Instruments: Recognition and Measurement"
→ Amendments to IFRS 10 "Consolidated Financial Statements"
→ Amendment to IFRS 11 "Joint Arrangements"
→ Amendments to IFRS 12 "Disclosure of Interests in Other Entities"

The company currently does not expect the new rules to have any material effects on the consolidated financial statements. In particular, the rules contained in IFRS 10 to IFRS 12 will not lead to any material changes based on the current equity holding structures.

As of the balance sheet date, the following standards were published by the International Accounting Standards Board and the IFRS Interpretations Committee, but not yet adopted by the European Union:

→ IFRS 9 "Financial Instruments"
→ Amendment to IAS 19 "Employee Benefits"
→ Amendment to IAS 39 "Financial Instruments: Recognition and Measurement"
→ Amendments to IFRS 7 "Financial Instruments: Disclosures"
→ Amendments to IFRS 9 "Financial Instruments"
→ Annual Improvements to IFRSs 2010–2012 Cycle
→ Annual Improvements to IFRSs 2011–2013 Cycle
→ IFRIC 21 "Levies"

The impact that IFRS 9, which will become effective as of 2015 at the earliest, will have on the consolidated financial statements is currently being examined. At the present time, the other new rules are not expected to have any material effects on the consolidated financial statements.

Scope of consolidation

(3) Changes in the scope of consolidation

Including the parent company Merck KGaA, Darmstadt, Germany, 191 (2012: 203) German and foreign companies were fully consolidated in the annual financial statements of the Group. Of these companies, 165 (2012: 178) are located abroad. No companies were consolidated using the equity method or the proportionate consolidation method as of the balance sheet date. Overall, the following changes in the scope of consolidation had no material impact on the financial statements: Six newly established companies were included in the consolidated financial statements for the first time. Owing to eleven liquidations and four mergers and three disposals, 18 companies were deconsolidated.

Due to secondary importance, 22 (2012: 28) subsidiaries were not consolidated. Overall, the impact of these subsidiaries on sales, profit after tax, assets and equity was less than 1% relative to the entire Group. The interests in subsidiaries not consolidated due to secondary importance were classified as available-for-sale financial assets and presented under non-current financial assets. The list of shareholdings presents all of the companies included in the consolidated financial statements as well as all of the shareholdings of the Merck KGaA, Darmstadt, Germany (see Note [71]).

(4) Acquisitions and divestments, as well as assets held for sale and disposal groups

No acquisitions or divestments were made in fiscal 2013.

With respect to acquisitions made in 2012, no subsequent purchase price allocation adjustments occurred.

On December 20, 2013, the Group published an offer to acquire the entire share capital of AZ Electronic Materials S.A., Luxembourg, (AZ), by way of a cash payment. Among other things, the successful completion of the transaction is subject to antitrust clearances as well as the achievement of a minimum acceptance level of 95% of the share capital. The expected purchase price payment is being reported under other financial obligations (see Note [61]).

On January 8, 2014, Merck KGaA, Darmstadt, Germany, announced its intention to sell the Discovery and Development Solutions business field of the Life Science Tools division to Eurofins Scientific S.A., Luxembourg. The amount of the assets to be sold were shown as a disposal group and include property, plant and equipment in the amount of € 3.7 million, inventories in the amount of € 1.8 million and goodwill allocated to the business field in the amount of € 16.2 million. The transaction is expected to be concluded in the first quarter of 2014.

On December 13, 2013, Merck KGaA, Darmstadt, Germany, signed a contract with Theratechnologies Inc., Canada, regarding the termination of the research and development cooperation and the sale of the marketing rights to Egrifta® (tesamorelin for injection) in the United States. The transfer of the assets assigned to the Biopharmaceuticals division is effective as of March 3, 2014. In the consolidated balance sheet as of December 31, 2013, an intangible asset in the amount of € 5.4 million relating to this transfer was presented under the balance sheet item "assets held for sale".

Accounting policies

(5) Accounting and measurement principles

With the exception of the two changes described in the following, the accounting and measurement principles have remained unchanged in comparison with the previous year.

In May 2013, the International Accounting Standards Board approved the amended version of IAS 36 "Impairment of Assets," which was adopted by the European Union on December 20, 2013. The amended standard is effective for fiscal years beginning on or after January 1, 2014. Merck KGaA, Darmstadt, Germany, made use of the possibility to apply the standard earlier, and has been applying the rules contained in the amended IAS 36 since January 1, 2013. The amendments to IAS 36 rescind the consequences of IAS 36 caused by the adoption of IFRS 13 "Fair Value Measurement". At the company, the changes related to the amended standard mean that the recoverable amount of cash-generating units with a significant carrying amount of goodwill are only to be disclosed if during the period an impairment or reversal of an impairment was recognized.

Apart from this change, in fiscal 2013 the expenses for Group functions to the operating divisions in the Segment reporting are no longer allocated to the operating segments, but rather disclosed fully in the column "Corporate and Other". This change in disclosure relates exclusively to Segment Reporting and has no impact on the amounts disclosed in the consolidated income statement. A complete presentation of this disclosure change can be found under Note [52].

→ *Accounting policies*

The main assets and liabilities disclosed in the consolidated balance sheet are measured as follows:

Balance sheet items	Measurement principle
ASSETS	
Cash and cash equivalents	Nominal value
Financial assets (current/non-current)	
Held to maturity investments	Amortized cost
Available-for-sale financial assets	Fair value
Loans and receivables	Amortized cost
Assets from derivatives (financial transactions)	Fair value
Trade accounts receivable	Amortized cost
Inventories	Lower of cost and net realizable value
Other assets (current/non-current)	
Assets from derivatives (operating business)	Fair value
Receivables from non-income-related taxes	Amortized cost
Other receivables	Amortized cost
Income tax receivables	Expected tax refunds based on tax rates that have been enacted or substantively enacted by the end of the reporting period
Assets held for sale	Lower of carrying amount and fair value less costs to sell
Intangible assets	
With finite useful lives	Amortized cost
With indefinite useful lives	Amortized cost (subsequent measurement: impairment only approach)
Property, plant and equipment	Amortized cost
Deferred tax assets	Undiscounted measurement based on tax rates that are expected to apply to the period when the asset is realized or the liability is settled
EQUITY AND LIABILITIES	
Financial liabilities (current/non-current)	
Bonds	Amortized cost
Liabilities to related parties	Amortized cost
Bank loans and overdrafts	Amortized cost
Liabilities from derivatives (financial transactions)	Fair value
Finance lease liabilities	Amortized cost
Trade accounts receivable	Amortized cost
Other liabilities (current/non-current)	
Liabilities from derivatives (operating business)	Fair value
Liabilities from non-income-related taxes	Settlement amount
Other liabilities	Settlement amount
Income tax liabilities	Expected tax payments based on tax rates that have been enacted or substantively enacted by the end of the reporting period
Liabilities in connection with assets held for sale	Fair value less costs to sell
Provisions (current/non-current)	Present value of the expenditures expected to be required to settle the obligation
Provisions for pensions and other post-employment benefits	Projected unit credit method
Deferred tax liabilities	Undiscounted measurement based on tax rates that are expected to apply to the period when the asset is realized or the liability is settled

→ *Accounting policies*

(6) Management judgments and sources of estimation uncertainty

The preparation of the consolidated financial statements requires management to make judgments and assumptions as well as estimates to a certain extent. This affects the amount of assets and liabilities, disclosures on contingent assets and liabilities, as well as reported income and expenses. Actual values may differ from the estimates made and assumptions and judgments may subsequently prove inaccurate. This is of fundamental importance for the understanding of these consolidated financial statements and the assessment of the underlying risks. The relevant assumptions and estimates for the preparation of the consolidated financial statements are reviewed on an ongoing basis. Changes in estimates are considered in the period of the change and in subsequent periods if the change relates to both the reporting period and also future periods. Judgments, forward-looking assumptions and sources of estimation uncertainty with the greatest potential effects on these consolidated financial statements are presented below.

Sales deductions

The Group grants its customers various kinds of rebates and discounts. In addition, expected product returns, state compulsory charges and rebates from health plans and programs are also deducted from sales.

The most significant portion of these deductions from sales is attributable to the Biopharmaceuticals division. The most complex and most substantial rebates in this division relate to government rebate programs in North America such as the U.S. Federal Medicare Program and the U.S. Medicaid Drug Rebate Program. Other significant sales deductions in the division result from compulsory government rebate programs in certain European countries.

Insofar as sales deductions were not already made on payments received, the Group determines the level of required sales deductions on the basis of current experience and recognizes them as a liability or provision. The sales deductions reduce gross sales revenues. Adjustments of liabilities and provisions can lead to increases or reductions of sales in later periods.

Impairment tests of goodwill and other intangible assets with indefinite useful lives

The goodwill (carrying amount as of December 31, 2013: € 4,583.2 million/2012: € 4,695.7 million) and other intangible assets with indefinite useful lives (carrying amount as of December 31, 2013: € 214.9 million/2012: € 156.6 million) reported in the consolidated financial statements are tested for impairment when a triggering event arises or at least once a year.

The impairment tests include assumptions and estimates of the amount of future cash flows and the discount rate. Here, to be mentioned in particular are assumptions and estimates regarding future customers, saleable quantities, achievable prices, corresponding cost developments, the long-term growth rate and the weighted average cost of capital (WACC) used for discounting. All of these assumptions are considered a source of estimation uncertainty due to their inherent uncertainty. Changes in the long-term growth rate and the discount rate especially have an influence on the determination of value in use. Information on the sensitivity of these two factors can be found in Note [41].

Especially due to the acquisition of Serono SA and the Millipore Corporation, the goodwill reported in the consolidated financial statements represents a significant factor. Although the company expects no materially significant impairment of the goodwill in the near future, such impairment cannot be ruled out for the future in the event of unfavorable developments in the earnings situations of the relevant cash-generating units.

→ *Accounting policies*

Determination of the level of amortization of intangible assets with finite useful lives

In addition to goodwill and other intangible assets with indefinite useful lives, the Group has a significant amount of intangible assets with finite useful lives (carrying amount as of December 31, 2013: € 5,026.8 million/2012: € 6,056.8 million). Substantial assumptions and estimates are required to determine the appropriate level of amortization of these intangible assets. This relates in particular to the determination of the underlying remaining useful life. The parameter is reviewed by the Group and adjusted if necessary at least at the end of every fiscal year. In these estimates, the Group considers factors including the typical product life cycles for each asset and publicly available information about the estimated useful lives of similar assets. Despite these analyses, the assumed useful lives can prove false at a later date because of the high degree of uncertainty.

If the amortization of intangible assets from market authorizations, patents, licenses and similar rights, capitalized brand names and trademarks had been 10% higher, for example due to shortened remaining useful lives, profit before income tax would have been € 81.4 million lower in fiscal 2013 (2012: reduction of € 87.2 million). In fiscal 2013, a reduction of the useful lives of the intangible assets reported in connection with the drug Rebif® by one year would have lowered profit before income tax by € 61.4 million (2012: € 52.6 million).

In- and out-licensing of intangible assets

The Group regularly acquires intellectual property from research institutions, biotechnology companies and other contract partners. Such acquisitions typically involve the agreement of up-front payments and payments for the achievement of certain milestones. In this context, the Group has to judge to what extent up-front or milestone payments represent compensation for assets to be capitalized or how far these payments represent remuneration for purchased services (ongoing research and development expense).

The Group also acts as the seller of intellectual property in out-licensing agreements and usually receives up-front and milestone payments on this basis. In this context, it must be assessed to what extent all significant risks and rewards of the intangible asset in question are transferred to the acquirer and consequently whether revenue is required to be recognized.

Identification of impairment of non-financial assets

Judgments by company management are required in the identification of existing indications of impairment of intangible assets and property, plant and equipment. As of December 31, 2013, the carrying amounts of these assets amounted to € 12,514.4 million (2012: € 13,898.1 million). The Group uses external and internal information to identify indications of impairment. For example, the approval of a competing pharmaceutical product or the closure of a location can be an indicator of impairment. Nevertheless, the Group's analysis of indications of impairment can prove too optimistic, too pessimistic or incorrect in hindsight due to the high degree of uncertainty. This would result in impairment tests being carried out too late, too early or erroneously not carried out at all.

→ *Accounting policies*

Impairment of financial assets

On every reporting date, the Group reviews whether there is any objective evidence that a financial asset is impaired and, if this is the case, carries out the impairment to the extent estimated as necessary. Particularly important in this context are impairment losses on trade receivables whose carrying amount was € 2,021.4 million in 2013 (2012: € 2,114.6). Of these trade receivables, € 209.1 million related to receivables in Italy, Spain, Greece and Portugal (2012: € 258.1 million), which are a particular focus as part of the management of operating counterparty risks.

Significant indicators for the identification of impaired receivables and the subsequent impairment tests are in particular payment default or delay in the payment of interest or principal, negative changes in economic or regional economic framework conditions as well as considerable financial difficulties of a debtor. These estimates are discretionary and can later prove to be incorrect.

Other provisions

As a global pharmaceutical and chemical group, the Group is exposed to a multitude of litigation risks. In particular, these include risks from product liability, competition and antitrust law, pharmaceutical law, patent law, tax law and environmental protection. The Group is engaged in legal proceedings and official investigations, the outcomes of which are uncertain. A detailed description of the most important legal matters as of the balance sheet date can be found in Note [48]. The provisions recognized for legal disputes mainly relate to the Biopharmaceuticals division and amounted to € 772.3 million as of the reporting date (2012: € 678.9 million). To assess the existence of a reporting obligation and to quantify pending outflows of resources, the Group draws on the knowledge of the legal department as well as any other outside counsel.

In spite of this, both the assessment of the existence of a present obligation and the estimate of the probability of a future outflow of resources are highly subject to uncertainty. Equally, the evaluation of a possible payment obligation is to be considered a major source of estimation uncertainty.

To a certain extent, the Group is obliged to take measures to protect the environment and reported provisions for environmental protection of € 111.2 million as of December 31, 2013 (2012: € 106.7 million). The underlying obligations were located mainly in Germany and the United States. Provisions were recognized primarily for obligations from soil remediation and groundwater protection in connection with the discontinued crop protection business.

The calculation of the present value of the future settlement amount requires, among other things, estimates of the future settlement date, the actual severity of the identified contamination, the applicable remediation methods and the associated future costs. The measurement is carried out regularly in consultation with independent experts. In spite of this, the determination of the future settlement amount of the provisions for environmental protection measures is subject to a considerable degree of uncertainty.

→ *Accounting policies*

Provisions for pensions and other post-employment benefits

The Group maintains several defined benefit pension plans, particularly in Germany, Switzerland and the United Kingdom. The determination of the present value of the obligation from these defined benefit pension plans primarily requires estimates of the discount rate, future salary increases, future pension increases and future cost increases for medical care.

Detailed information on the existing pension obligations and a sensitivity analysis of the parameters named above are provided in Notes [21] and [49]. As of the reporting date, the amount recorded on the balance sheet for provisions for pensions and other post-employment benefits was € 910.9 million (2012: € 1,211.7 million). The present value of the defined benefit pension obligation was € 2,736.8 million as of December 31, 2013 (2012: € 2,830.1 million).

Income taxes

The calculation of the reported assets and liabilities from deferred and current income taxes requires extensive discretionary judgments, assumptions and estimates. The tax liabilities and the provisions for tax obligations resulted in total income tax liabilities of € 465.1 million as of December 31, 2013 (2012: € 401.4 million). The carrying amounts of deferred tax assets and liabilities amounted to € 736.4 million and € 665.5 million, respectively, as of the reporting date (2012: € 946.6 and € 1,192.0 million, respectively).

The recognized income tax liabilities and provisions are partially based on estimates and interpretations of tax laws and ordinances in different jurisdictions.

With regard to deferred tax items, there is a high degree of uncertainty concerning the date on which an asset is realized or a liability settled and concerning the tax rate applicable on this date. This particularly relates to deferred tax liabilities recognized in the context of the acquisitions of Serono SA and the Millipore Corporation. The recognition of deferred tax assets from loss carryforwards requires an estimate of the probability of the future realizability of loss carryforwards. Factors considered in this estimate are results history, results planning and any tax planning strategy of the respective Group company.

Other judgments, assumptions and sources of estimation uncertainty

The Group makes other judgments, assumptions and estimates in the following areas:

- → Identification, recognition and measurement of assets, liabilities and contingent liabilities in the context of business combinations
- → Classification of financial assets and financial liabilities
- → Determination of the fair value of financial instruments classified as available for sale and of derivative financial instruments
- → Determination of the fair value of the liability for share-based compensation
- → Determination of the fair value of plan assets

→ *Accounting policies*

(7) Consolidation methods

The consolidated financial statements are based on the single-entity financial statements of the consolidated companies as of the balance sheet date, which were prepared applying consistent accounting polices in accordance with IFRS.

Acquisitions are accounted for using the purchase method in accordance with IFRS 3. Subsidiaries acquired and consolidated for the first time were measured at the carrying values at the time of acquisition on the basis of financial statements prepared for this purpose. Differences resulting in this connection are recognized as assets and liabilities to the extent that their fair values differ from the values actually carried in the financial statements. A remaining positive difference is recognized as goodwill within intangible assets, and is subjected to an impairment test if there are indications of impairment, or at least once a year.

In cases where a company was not acquired in full, non-controlling interests are measured using the fair value of the proportionate share of net assets. The option to measure non-controlling interests at fair value (full goodwill method) was not utilized.

When additional shares in non-controlling interest are acquired, the purchase price amount that exceeds the carrying amount of this interest is recognized immediately in equity.

Interests in associates over which the Group has significant influence are – as far as they are material – included in accordance with IAS 28 using the equity method of accounting.

Intragroup sales, expenses and income, as well as all receivables and payables between the consolidated companies, were eliminated. The effects of intragroup deliveries reported under non-current assets and inventories were adjusted by eliminating any intragroup profits. In accordance with IAS 12, deferred taxes are applied to these consolidation measures.

(8) Currency translation

The functional currency concept applies to the translation of financial statements of consolidated companies prepared in foreign currencies. The subsidiaries of the Group generally conduct their operations independently. The functional currency of these companies is normally the respective local currency. Assets and liabilities are measured at the closing rate, and income and expenses are measured at weighted average annual rates in euros, the reporting currency. Any currency translation differences arising during consolidation of Group companies are taken directly to equity. If Group companies are deconsolidated, existing currency differences are reversed and reclassified to profit or loss. The local currency is not the functional currency at only a few subsidiaries.

→ *Accounting policies*

When the financial statements of consolidated companies are prepared, business transactions that are conducted in currencies other than the functional currency are recorded using the current exchange rate on the date of the transaction. Foreign currency monetary items (cash and cash equivalents, receivables and payables) in the year-end financial statements of the consolidated companies prepared in the functional currency are translated at the respective closing rates. Exchange differences from the translation of monetary items are recognized in the income statement with the exception of net investments in a foreign operation. Hedged items are likewise carried at the closing rate. The resulting gains or losses are eliminated in the income statement against offsetting amounts from the fair value measurement of derivatives.

Currency translation was based on the following key exchange rates:

	Average annual rate		Closing rate	
€ 1 =	2013	2012	Dec. 31, 2013	Dec. 31, 2012
British pound (GBP)	0.848	0.814	0.834	0.816
Chinese renminbi (CNY)	8.178	8.143	8.345	8.217
Japanese yen (JPY)	129.016	103.233	144.729	113.568
Swiss franc (CHF)	1.228	1.205	1.227	1.207
Taiwan dollar (TWD)	39.471	38.187	41.128	38.282
U.S. dollar (USD)	1.330	1.293	1.379	1.319

(9) Recognition of sales and other revenue

Sales are recognized net of sales-related taxes as well as sales deductions. They are recognized once the goods have been delivered or the services have been rendered, the significant risks and rewards of ownership have been transferred to the purchaser, the amount of revenue can be measured reliably, and it is probable that the economic benefits will flow to the entity. When sales are recognized, estimated amounts are taken into account for expected sales deductions, for example rebates, discounts and returns.

In addition to revenue from the sale of goods, sales also include revenue from services, but the volume involved is insignificant. Long-term, customer-specific manufacturing contracts do not exist.

Depending on the substance of the relevant agreements, royalty, license and commission income is recognized either immediately or is recognized when the contractual obligation is fulfilled.

Dividend income is recognized when the shareholders' right to receive the dividend is established. This is normally the date of the dividend resolution. Interest income is recognized in the period in which it is earned.

(10) Research and development costs

Research and development costs comprise the costs of research departments and process development, the costs of clinical trials as well as the expenses incurred as a result of research and development collaborations.

→ *Accounting policies*

The costs of research cannot be capitalized and are expensed in full in the period in which they are incurred. As internally generated intangible assets, it is necessary to capitalize development expenses if the cost of the internally generated intangible asset can be reliably determined and the asset can be expected to lead to future economic benefits. The condition for this is that the necessary resources are available for the development of the asset, technical feasibility of the asset is given, its completion and use are intended, and marketability is given. Owing to the high risks up to the time that pharmaceutical products are approved, these criteria are not met in the pharmaceutical business. Costs incurred after regulatory approval are usually insignificant and are therefore not recognized as intangible assets. Owing to the risks existing up until market launch, development expenses in the Performance Materials and Life Science Tools divisions can likewise not be capitalized.

In addition to own research and development, the Group is also a partner in collaborations aimed at developing marketable products. These collaborations typically involve payments for the achievement of certain milestones. Here, assessments are made as to whether these upfront or milestone payments represent compensation for services rendered (research and development expense) or whether the payments represent the acquisition of an asset that has to be capitalized. Reimbursements for R&D are offset against research and development costs.

(11) Financial instruments: Principles

A financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity. A distinction is made between non-derivative and derivative financial instruments.

Derivatives can be embedded in other financial instruments or in non-financial instruments. Under IFRS, an embedded derivative must be separated from the host contract and accounted for separately at fair value if the economic characteristics of the embedded derivative are not closely related to the economic characteristics of the host contract. The Group did not have any separable embedded derivatives during the fiscal year. Issued compound financial instruments with both an equity and a liability component must be recognized separately depending on their characteristics. The Group was not a party to hybrid or compound financial instruments during the fiscal year.

As a rule, the Group accounts for regular way purchases or sales of financial instruments at the settlement date and derivatives at the trade date.

Financial assets and financial liabilities are generally measured at fair value on initial recognition, if necessary including transaction costs.

Financial assets are derecognized in part or in full if the contractual rights to the cash flows from the financial asset have expired or if control and substantially all the risks and rewards of ownership of the financial asset have been transferred to a third party. Financial liabilities are derecognized if the contractual obligations have been discharged, cancelled, or expired. Cash and cash equivalents are carried at nominal value.

→ *Accounting policies*

(12) Financial instruments: Categories and classes of financial instruments

Financial assets and liabilities are classified into the following IAS 39 measurement categories and IFRS 7 classes. The classes required to be disclosed in accordance with IFRS 7 consist of the measurement categories set out here. Additionally, cash and cash equivalents with an original maturity of up to 90 days, finance lease liabilities, and derivatives designated as hedging instruments are also classes in accordance with IFRS 7. There were no reclassifications between the aforementioned measurement categories during the fiscal year.

Financial assets and financial liabilities at fair value through profit or loss

"Financial assets and financial liabilities at fair value through profit or loss" can be both non-derivative and derivative financial instruments. Financial instruments in this category are subsequently measured at fair value. Gains and losses on financial instruments in this measurement category are recognized directly in the income statement. This measurement category includes an option to designate non-derivative financial instruments as "at fair value through profit or loss" on initial recognition (fair value option) or as "financial instruments held for trading". We did not apply the fair value option during the fiscal year. The Group only assigns derivatives to the "held for trading" measurement category. Special accounting rules apply to derivatives that are designated as hedging instruments in a hedging relationship.

Held to maturity investments

"Held to maturity investments" are non-derivative financial assets with fixed or determinable payments and a fixed maturity that are quoted in an active market. To be able to assign a financial asset to this measurement category, the entity must have the positive intention and ability to hold it to maturity. These investments are subsequently measured at amortized cost. If there is objective evidence that such an asset is impaired, an impairment loss is recognized in profit or loss. Subsequent reversals of impairment losses are also recognized in profit or loss up to the amount of the original cost of the asset. At the Group, this measurement category is used for current and non-current financial assets.

Loans and receivables

"Loans and receivables" are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are subsequently measured at amortized cost. If there is objective evidence that such assets are impaired, an impairment loss is recognized in profit or loss. Subsequent reversals of impairment losses are also recognized in profit or loss up to the amount of the original cost of the asset. Long-term non-interest-bearing and low-interest receivables are measured at their present value. The Group primarily assigns trade receivables, loans, and miscellaneous other current and non-current receivables to this measurement category. The Group uses a separate allowance account for impairment losses on trade and other receivables.

→ *Accounting policies*

Available-for-sale financial assets

"Available-for-sale financial assets" are those non-derivative financial assets that are not assigned to the measurement categories "financial assets and financial liabilities at fair value through profit or loss", "held-to-maturity investments" or "loans and receivables". Financial assets in this category are subsequently measured at fair value. Changes in fair value are recognized immediately in equity and are only transferred to the income statement when the financial asset is derecognized. If there is objective evidence that such an asset is impaired, an impairment loss is recognized immediately in the income statement, including any amounts already recognized in equity. Reversals of impairment losses on previously impaired equity instruments are recognized immediately in equity. Reversals of impairment losses on previously impaired debt instruments are recognized in profit or loss up to the amount of the impairment loss. Any amount in excess of this is recognized directly in equity. At the Group, this measurement category is used in particular for securities and financial assets, as well as interests in subsidiaries that are not consolidated due to secondary importance (affiliates). Financial assets in this category for which no fair value is available or fair value cannot be reliably determined are measured at cost less any cumulative impairment losses. Impairment losses on financial assets carried at cost may not be reversed.

Other liabilities

Other liabilities are non-derivative financial liabilities that are subsequently measured at amortized cost. Differences between the amount received and the amount to be repaid are amortized to profit or loss over the maturity of the instrument. The Group primarily assigns financial liabilities, trade payables, and miscellaneous other non-derivative current and non-current liabilities to this category.

(13) Financial instruments: Derivatives and hedge accounting

The Group uses derivatives solely to economically hedge recognized assets or liabilities and forecast transactions. The hedge accounting rules in accordance with IFRS are applied to some of these hedges. A distinction is made between fair value hedge accounting and cash flow hedge accounting. Designation of a hedging relationship requires a hedged item and a hedging instrument. At the Group, all hedges relate to recognized or highly probable hedged items. The Group currently only uses derivatives as hedging instruments.

The hedging relationship must be effective at all times, i.e. the change in fair value of the hedging instrument fully offsets changes in the fair value of the hedged item. The Group uses the dollar offset method to measure hedge effectiveness. Derivatives that do not or no longer meet the documentation or effectiveness requirements for hedge accounting, whose hedged item no longer exists, or for which hedge accounting rules are not applied are reported as "financial assets and liabilities at fair value through profit or loss." Changes in fair value are then recognized in profit or loss.

→ *Accounting policies*

As a rule, the purpose of a fair value hedge is to offset the exposure to changes in the fair value of recognized hedged items (financial assets or financial liabilities) through offsetting changes in the fair value of a hedging instrument. Gains and losses on the hedging instrument resulting from changes in fair value are recognized in profit or loss, net of deferred taxes. Offsetting gains and losses on the hedged item that are attributable to the hedged risk are also recognized in profit or loss, irrespective of the item's allocation to a measurement category.

At the Group, cash flow hedges normally relate to highly probable forecast transactions in foreign currency and to future interest payments. In cash flow hedges, the effective portion of the gains and losses on the hedging instrument is recognized in equity until the hedged item occurs. This is also the case if the hedging instrument expires, is sold, or is terminated before the hedged transaction occurs. The ineffective portion of a cash flow hedge is recognized directly in profit or loss.

(14) Other non-financial assets and liabilities

Other non-financial assets are carried at amortized cost. Allowances are recognized for any credit risks. Long-term non-interest-bearing and low-interest receivables are carried at their present value. Other non-financial liabilities are carried at the amount to be repaid.

(15) Inventories

Inventories are carried at the lower of cost or net realizable value. When determining cost, the "first-in, first-out" (FIFO) and weighted average cost formulas are used. In addition to directly attributable unit costs, manufacturing costs also include overheads attributable to the production process, which are determined on the basis of normal capacity utilization of the production facilities.

Inventories are written down if the net realizable value is lower than the acquisition or manufacturing cost carried in the balance sheet.

Since the products are not manufactured within the scope of long-term production processes, the manufacturing cost does not include any borrowing cost.

Inventory prepayments are recorded under other current assets.

(16) Intangible assets

Acquired intangible assets are recognized at cost and are classified as assets with finite and indefinite useful lives. Self-developed intangible assets are only capitalized if the requirements specified by IAS 38 have been met. Intangible assets with indefinite useful lives acquired in the course of business combinations are recognized at fair value on the acquisition date.

→ *Accounting policies*

Intangible assets with indefinite useful lives

Intangible assets with indefinite useful lives are not amortized; however they are tested for impairment when a triggering event arises or at least once a year. Here, the respective carrying amounts are compared with the recoverable amount of the cash-generating unit. Impairment losses recognized on indefinite-life intangible assets other than goodwill are reversed if the original reasons for impairment no longer apply.

Goodwill is allocated to cash-generating units and tested for impairment either annually or if there are indications of impairment. A cash-generating unit is a division as presented in the Segment reporting. The carrying amounts of the cash-generating units are compared with their recoverable amounts and impairment losses are recognized where the recoverable amount is lower than the carrying amount. The recoverable amount of a cash-generating unit is determined as the higher of fair value less costs to sell and value in use estimated using the discounted cash flow method. When testing for potential goodwill impairments, the Group determines the recoverable amount by discounting expected cash flows and therefore uses the value-in-use method.

Intangible assets with finite useful lives

Intangible assets with a finite useful life are amortized using the straight-line method. The useful lives of marketing authorizations, acquired patents, licenses and similar rights, brand names, trademarks and software are between 3 and 15 years. Amortization of intangible assets other than software is reported under amortization of intangible assets in the income statement. This item primarily comprises amortization in connection with the purchase price allocations for the acquisitions of Serono SA and the Millipore Corporation. Amortization of software is allocated to the functional costs in the income statement. An impairment test is performed if there are indications of impairment. Impairment losses are determined using the same methodology as for indefinite-life intangible assets. Impairment losses are reversed if the original reasons for impairment no longer apply.

(17) Property, plant and equipment

Property, plant and equipment is measured at cost less depreciation and impairments plus reversals of impairments. The component approach is applied here in accordance with IAS 16. Subsequent costs are only capitalized if it is probable that future economic benefits will arise for the Group and the cost of the asset can be measured reliably. The cost of self-constructed property, plant and equipment is calculated on the basis of the directly attributable unit costs and an appropriate share of overheads. If the construction of property, plant and equipment takes a substantial period of time, the directly attributable borrowing costs incurred up until completion are capitalized as part of the costs. In accordance with IAS 20, costs are reduced by the amount of government grants in those cases where government grants or subsidies have been paid for the acquisition or manufacture of assets (grants related to assets). Grants related to expenses which no longer offset future expenses are recognized in profit or loss. Property, plant and equipment is depreciated by the

→ *Accounting policies*

straight-line method over the useful life of the asset concerned. Depreciation of property, plant and equipment is based on the following useful lives:

Useful life of property, plant and equipment

	Useful life
Production buildings	maximum of 33 years
Administration buildings	maximum of 40 years
Plant and machinery	6 to 25 years
Operating and office equipment; other facilities	3 to 10 years

The useful lives of the assets are reviewed regularly and adjusted if necessary. If indications of a decline in value exist, an impairment test is performed. The determination of the possible need to recognize impairments proceeds in the same way as for intangible assets. If the reasons for an impairment loss no longer exist, a reversal of the impairment loss recognized in prior periods is recorded.

(18) Leasing

Where non-current assets are leased and economic ownership lies with the Group (finance lease), the asset is recognized at the present value of the minimum lease payments or the lower fair value in accordance with IAS 17 and depreciated over their useful life. The corresponding payment obligations from future lease payments are recorded as liabilities. If an operating lease is concerned, the associated expenses are recognized in the period in which they are incurred.

(19) Deferred taxes

Deferred tax assets and liabilities result from temporary differences between the carrying amount of an asset or liability in the IFRS and tax balance sheets of consolidated companies as well as from consolidation activities, as far as the carrying amount of the asset or liability is recovered or settled in future periods. In addition, deferred tax assets are recorded in particular for tax loss carryforwards if and insofar as their utilization is probable in the foreseeable future. In accordance with the liability method, the tax rates enacted and published as of the balance sheet date are used.

Deferred tax assets and liabilities are only offset on the balance sheet data if they meet the requirements of IAS 12.

→ *Accounting policies*

(20) Provisions

Provisions are recognized in the balance sheet if it is more likely than not that a cash outflow will be required to settle the obligation and the amount of the obligation can be measured reliably. The carrying amount of provisions takes into account the amounts required to cover future payment obligations, recognizable risks and uncertain obligations of the Group to third parties.

Measurement is based on the settlement amount with the highest probability or if the probabilities are equivalent and a high number of similar cases exist, it is based on the expected value of the settlement amounts. Long-term provisions are discounted and carried at their present value as of the balance sheet date. To the extent that reimbursement claims exist as defined in IAS 37, they are recognized separately as an asset if their realization is virtually certain and the asset recognition criteria has been met.

(21) Provisions for pensions and other post-employment benefits

Provisions for pensions and other post-employment benefits are recorded in the balance sheet in accordance with IAS 19. The obligations under defined benefit plans are measured using the projected unit credit method. Under the projected unit credit method, dynamic parameters are taken into account in calculating the expected benefit payments after an insured event occurs; these payments are spread over the entire period of service of the participating employees. Annual actuarial opinions are prepared for this purpose. The actuarial assumptions for discount rates, salary and pension trends, staff turnover as well as health care cost increases, which were used to calculate the benefit obligation, were determined on a country-by-country basis in line with the economic conditions prevailing in each country; the latest country-specific actuarial mortality table was used in each case. The respective discount rates are generally determined on the basis of the returns on high-quality corporate bonds issued with adequate maturities and currencies. For euro-denominated obligations, bonds with ratings of at least "AA" from one of the three major rating agencies (Standard & Poor's, Moody's or Fitch), and a euro swap rate of adequate duration served as the basis for the data. Actuarial gains and losses resulting from changes in actuarial assumptions and/or experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred) are recognized immediately in equity as soon as they are incurred, taking deferred taxes into account. Consequently, the balance sheet discloses – after deduction of the plan assets – the full scope of the obligations while avoiding the fluctuations in expenses that can result especially when the calculation parameters change. The actuarial gains and losses recorded in the respective reporting period are presented separately in the Statement of Comprehensive Income.

Notes to the consolidated income statement

(22) Sales

Sales were generated primarily from the sale of goods and to a limited degree also included revenues from services rendered. Group sales totaled € 10,700.1 million in 2013 (2012: € 10,740.8 million), which represented a decline of –0.4% compared to 2012 (increase of 8.4% in 2012). Adjusted for the impact of foreign exchange rates and acquisitions, organic growth amounted to 4.2% (2012: 4.5%). Sales are presented by division and region in the Segment reporting (see Note [51]).

(23) Royalty, license and commission income

In 2013, royalty and license income totaled € 359.8 million (2012: € 417.2 million) and mainly included royalty and license income from the products Humira® (AbbVie Inc., formerly Abbott), Avonex® (Biogen Idec Inc.), Enbrel® (Amgen Inc.), Puregon® (Merck & Co. Inc.) and Viibryd® (Forest Laboratories Inc.), as well as income from the active pharmaceutical ingredients bisoprolol and metformin. The change compared to 2012 resulted primarily from the expiration of the patent for Avonex® in the United States on May 7, 2013.

In 2013, commission income totaled € 35.2 million (2012: € 14.9 million). This primarily consisted of cooperation and distribution agreements. The breakdown of royalty, license and commission income by division is presented in the Segment reporting (see Note [51]).

(24) Cost of sales

Cost of sales primarily included the cost of manufactured products sold as well as goods for resale. Cost comprises overheads and, if necessary, inventory write-downs, in addition to directly attributable costs, such as the cost of materials, personnel and energy.

→ *Notes to the consolidated income statement*

(25) Marketing and selling expenses

Marketing and selling expenses comprised the following:

€ million	2013	2012
Sales force	–789.8	–841.0
Internal sales services	–598.7	–647.7
Sales promotion	–458.4	–460.8
Logistics	–390.7	–405.1
Other marketing and selling expenses	–88.9	–56.2
Marketing and selling expenses	**–2,326.5**	**–2,410.8**

The breakdown of marketing and selling expenses by division is presented in the Segment reporting (see Note [51]).

(26) Royalty, license and commission expenses

In 2013, royalty and license expenses amounted to € 212.8 million (2012: € 208.1 million) and commission expenses totaled € 354.2 million (2012: € 371.7 million).

The sales-dependent royalty payments represented selling expenses and were expensed in the period in which they were incurred. Of significance here are the marketing rights to Erbitux® outside the United States and Canada, for which expenses totaling € 80.9 million (2012: € 86.5 million) were incurred in 2013.

Co-marketing agreements lead to sales-dependent commission payments that are expensed in the period in which they are incurred. The commission expenses incurred related mainly to the marketing of Rebif® in the United States, for which expenses of € 302.4 million were incurred in 2013 (2012: € 309.5 million). These also represented exclusively selling expenses.

The breakdown of royalty, license and commission expenses by division is presented in the Segment reporting (see Note [51]).

(27) Administration expenses

Personnel costs and material expenses of management and administrative functions were recorded under this item unless charged to other functional costs as internal services.

The breakdown of administration expenses by division is presented in the Segment reporting (see Note [51]).

→ *Notes to the consolidated income statement*

(28) Other operating expenses and income

Other operating expenses and income were as follows:

€ million	2013	2012
Litigation	–154.8	–185.5
Premiums, fees and contributions	–54.3	–51.4
Allowances for receivables	–47.1	–68.3
Non-income related taxes	–37.4	–33.0
Expense for miscellaneous services	–23.9	–20.2
Impairment losses	–18.4	–19.7
Losses on disposals of assets	–17.7	–2.7
Project costs	–6.5	–8.1
Exchange rate differences from operating activities	–	–60.4
Impairment losses on Greek sovereign bonds	–	–2.8
One-time items	–386.8	–663.7
Other operating expenses	–111.0	–129.9
Total other operating expenses	**–857.9**	**–1,245.7**
Release of allowances for receivables	42.1	42.4
Exchange rate differences from operating activities	26.0	–
Income from miscellaneous services	25.1	21.0
Gains on disposals of assets	7.5	6.0
Income from investments	1.5	0.6
Other operating income	37.6	49.8
Total other operating income	**139.8**	**119.8**[1]
Total other operating expenses and income	**–718.1**	**–1,125.9**[1]

[1] Previous year's figures have been adjusted, see explanations below

Allowances for receivables and the release of allowances for receivables included both trade accounts receivable as well as other receivables disclosed under other assets insofar as the expenses were not recorded under one-time items.

The impairments related in the amount of € 3.3 million (2012: € 3.3 million) to assets which were assigned to research and development, in the amount of € 8.0 million (2012: 2012: € 16.1 million) to production plants, in the amount of € 2.7 million (2012: € 0.2 million) to sales-related assets, and in the amount of € 1.7 million (2012: € 0.0 million) to administration. In addition, impairments were recognized in the amount of € 2.7 million (2012: € 0.1 million) related to non-consolidated investments and other financial instruments which were assigned to the category "available for sale".

Other operating expenses included, among other things, special environmental protection costs and non-allocable personnel expenses.

→ *Notes to the consolidated income statement*

Due to its overall minor importance, income from investments was first shown in fiscal 2013 as a part of other operating income. The figures for 2012 were accordingly adjusted.

One-time items comprised:

€ million	2013	2012
Restructuring costs	–130.5	–503.8
Integration costs/IT costs	–49.0	–36.7
Gains/losses on the divestment of businesses	–2.3	–60.1
Acquisition costs	–	–1.0
Other one-time items	–2.3	–3.1
One-time items before impairment losses/reversals of impairments	**–184.1**	**–604.7**
Impairment losses	–207.2	–59.0
Reversals of impairments	4.5	–
One-time items (total)	**–386.8**	**–663.7**

The restructuring charges incurred in fiscal 2013 amounting to € 130.5 million (2012: € 503.8 million) were directly related to the efficiency measures in connection with the "Fit for 2018" transformation and growth program. This program was initiated in 2012 with the aim of increasing the competitiveness of the Group, especially by optimizing cost structures in all divisions. The recognized restructuring charges largely related to personnel measures, for instance the elimination of positions in order to create a leaner and more efficient organization. These were offset against income generated by the restructuring, which resulted in the amount of € 33.4 million primarily from the sale of the buildings at the Biopharmaceuticals division's location in Geneva, Switzerland. The amount for 2012 also primarily comprises expenses for personnel measures in connection with the "Fit for 2018" program.

Integration and IT costs of € 49.0 million (2012: € 36.7 million) were incurred primarily for the global harmonization of the IT landscape and in connection with the integration of acquired and existing businesses.

The losses from the divestment of businesses amounting to € 2.3 million (2012: € 60.1 million) related mainly to subsequent expenses for the Generics business sold in 2007.

Asset impairments amounted to € 207.2 million (2012: € 59.0 million). Of this amount, € 35.7 million (2012: € 34.3 million) was attributable to the "Fit for 2018" transformation and growth program, which together with the restructuring expenses resulted in total expenses of € 166.2 million (2012: € 538.1 million). The other impairments were allocable in the amount of € 170.8 million to intangible assets and in the amount of € 0.7 million to property, plant and equipment. The other impairments allocated to intangible assets are explained in more detail in Note [41].

The impairments related in the amount of € 7.2 million (2012: € 28.6 million) to assets which were assigned to research and development, in the amount of € 4.6 million (2012: € 8.3 million) to production plants, in the amount of € 153.5 million (2012: € 15.3 million) to sales-related assets, and in the amount of € 21.8 million (2012: € 1.8 million) to administration. In addition, impairments were recognized in the amount of € 2.8 million (2012: € 5.0 million) for non-consolidated investments and other financial instruments which were classified to the category "available for sale". Lastly, impairments were recorded in the amount of € 17.3 million (2012: € 0.0 million) for capitalized goodwill in connection with the sale of the Discovery and Development Solutions business field of the Life Science Tools division.

→ *Notes to the consolidated income statement*

The breakdown of other operating expenses and income by division as well as one-time items excluding impairment losses and reversals of impairment losses by division are presented in the Segment reporting (see Note [51]).

(29) Research and development costs

Research and development costs decreased slightly in 2013 to € 1,504.3 million (2012: € 1,511.3 million) and were thus nearly at the previous year's level. Reimbursements for research and development amounting to € 15.0 million (2012: € 37.2 million) were offset against research and development costs. This figure also included government subsidies of € 8.9 million (2012: € 6.4 million).

The breakdown of research and development costs by division and region is presented in the Segment reporting (see Note [51]).

(30) Amortization of intangible assets

Due to the particular significance of the amortization of intangible assets to the Group, this item is disclosed separately in the income statement. This item mainly included amortization of intangible assets in connection with the purchase price allocations for the acquisitions of Serono SA and the Millipore Corporation. Amortization of intangible assets decreased to € 813.5 million in 2013 from € 871.6 million in 2012.

Amortization amounting to € 763.9 million (2012: € 820.6 million) related to capitalized brands, marketing authorizations and customer relationships. These represent selling expenses. Further amortization of € 49.6 million (2012: € 51.0 million) was attributable to production technologies, which represent cost of sales.

Amortization of software is allocated to the respective functional costs.

(31) Financial result

€ million	2013	2012
Interest income and similar income	30.1	35.6
Interest expenses and similar expenses	–176.6	–221.9
Interest component from currency hedging transactions	–17.2	–19.0
Interest result	**–163.7**	**–205.3**
Interest component of the additions to pension provisions and other non-current provisions	–54.2	–60.3
Currency differences from financing activities	–4.3	11.2
Result from financial investments	–	–0.2
	–222.2	**–254.6**

→ *Notes to the consolidated income statement*

In spite of the increase in cash and cash equivalents, due to the overall lower level of interest rates interest income slightly declined.

The decrease in interest expenses was due mainly to the repayment of three bonds. Two bonds with a nominal volume of € 500.0 million each were already repaid in the course of fiscal 2012, and a bond with a nominal volume of € 750.0 million was repaid in 2013. In addition, interest expenses in 2012 included the expense from an interest rate swap with a nominal volume of € 250.0 million, which was closed out in 2012.

(32) Income tax

€ million	2013	2012
Current taxes in the period	–496.9	–451.2
Taxes for previous periods	–41.6	–4.5
Deferred taxes in the period	359.0	325.7
	–179.5	**–130.0**

The following table presents the tax reconciliation from theoretical tax expense to tax expense according to the income statement. The theoretical tax expense is determined by applying the statutory tax rate of 30.7% of a corporation headquartered in Darmstadt.

€ million	2013	2012
Profit before income tax	1,388.6	709,0
Tax rate	30.7%	30.7%
Theoretical tax expense	–426.3	–217.7
Tax rate differences	109.7	67.6
Tax effect of companies with a negative contribution to consolidated profit	–14.6	–1.9
Tax for other periods	–41.6	–4.5
Tax credits	225.8	71.3
Tax effect on tax loss carryforwards	0.4	0.1
Effect of non-deductible expenses/tax-free income/other tax effects	–32.9	–44.9
Tax expense according to income statement	**–179.5**	**–130.0**
Tax ratio according to income statement	12.9%	18.3%

The tax expense consisted of corporation and trade taxes for the companies domiciled in Germany as well as comparable income taxes for foreign companies.

The higher tax credits arose primarily in the United States due to the consideration of dividend income from high-tax countries.

→ *Notes to the consolidated income statement*

The tax effects of non-deductible expenses/tax-free income/other tax effects include a deferred tax benefit in the amount of € 194.1 million (2012: € 2.4 million) which resulted primarily from the decrease in deferred tax liabilities on intangible assets from changes in the applied tax rates for specific companies.

The reconciliation between deferred taxes in the balance sheet and deferred taxes in the income statement is presented in the following table:

€ million	2013	2012
Change in deferred tax assets (balance sheet)	–210.2	216.6
Change in deferred tax liabilities (balance sheet)	526.5	127.6
Deferred taxes credited/debited to equity	42.0	–20.3
Changes in scope of consolidation/currency translation/other changes	0.7	1.8
Deferred taxes (income statement)	**359.0**	**325.7**

Tax loss carryforwards were structured as follows:

	Dec. 31, 2013			Dec. 31, 2012		
€ million	Germany	Abroad	Total	Germany	Abroad	Total
Tax loss carryforwards	3.4	437.4	**440.8**	281.9	285.2	**567.1**
thereof:						
Including deferred tax asset	0.8	102.5	**103.3**	278.3	146.3	**424.6**
Deferred tax asset	0.2	20.6	**20.8**	41.3	33.0	**74.3**
thereof:						
Excluding deferred tax asset	2.6	334.9	**337.5**	3.6	138.9	**142.5**
Theoretical deferred tax asset	0.4	77.5	**77.9**	1.0	21.1	**22.1**

The decrease in tax loss carryforwards compared to 2012 was mainly the result of the use of German tax loss carryforwards of Merck KGaA, Darmstadt, Germany. The increase in non-German tax loss carryforwards resulted primarily from the consideration of loss carryforwards in Luxembourg for which no deferred tax assets were recognized. Deferred tax assets are recognized for tax loss and interest carryforwards only if for tax loss carryforwards of less than € 5.0 million, realization of the related tax benefits is probable within one year, and for tax loss carryforwards of more than € 5.0 million realization of the related tax benefits is probable within the next three years.

The vast majority of the tax loss carryforwards either has no expiry date or can be carried forward for up to 20 years.

The tax loss carryforwards accumulated in Germany for corporation and trade tax amounted to € 3.4 million (2012: € 281.9 million).

The additional theoretically possible deferred tax assets amounted to € 77.9 million (2012: € 22.1 million).

In 2013, the income tax expense was reduced by € 0.4 million (2012: € 0.1 million) due to the utilization of tax loss carryforwards from prior years for which no deferred tax asset had been recognized in prior periods.

→ *Notes to the consolidated income statement*

Deferred tax assets and liabilities corresponded to the following balance sheet items:

	Dec. 31, 2013		Dec. 31, 2012	
€ million	Assets	Liabilities	Assets	Liabilities
Intangible assets	39.5	801.2	46.4	1,162.7
Property, plant and equipment	14.8	58.3	5.2	67.0
Current and non-current financial assets	0.1	3.9	0.9	4.1
Inventories	442.1	4.6	438.7	4.7
Current and non-current receivables/Other assets	39.1	23.4	41.8	12.6
Provisions for pensions and other post-employment benefits	149.6	47.2	153.6	47.3
Current and non-current other provisions	311.8	69.0	316.2	60.1
Current and non-current liabilities	41.6	4.9	53.1	4.6
Tax loss carryforwards	20.8	–	74.3	–
Tax refund claims/Other	42.2	18.2	43.7	56.2
Offset deferred tax assets and liabilities	–365.2	–365.2	–227.3	–227.3
Deferred taxes (balance sheet)	**736.4**	**665.5**	**946.6**	**1,192.0**

In addition to deferred tax assets on tax loss carryforwards amounting to € 20.8 million (2012: € 74.3 million), deferred tax assets of € 715.6 million (2012: € 872.3 million) were recognized for temporary differences.

As of the balance sheet date, deferred tax liabilities for temporary differences for interests in subsidiaries as regards planned dividend payments amounted to € 12.9 million (2012: € 52.7 million). Deferred tax liabilities amounting to € 43.6 million recognized in 2012 for planned dividend payments within the scope of the Millipore acquisition were reversed in 2013. No deferred tax liabilities were recognized for other temporary differences relating to interests in subsidiaries since the reversal of these differences was not foreseeable. Temporary differences relating to the retained earnings of subsidiaries amounted to € 4,894.6 million (2012: € 3,533.0 million).

(33) Non-controlling interests

Non-controlling interests in net profit were primarily composed of the minority interests in the companies Merck Ltd., Thailand, a subsidiary of Merck KGaA, Darmstadt, Germany, and Merck (Pvt.) Ltd., Pakistan, a subsidiary of Merck KGaA, Darmstadt, Germany, as well as in the listed companies Merck Ltd., India, a subsidiary of Merck KGaA, Darmstadt, Germany, and P.T. Merck Tbk., Indonesia, a subsidiary of Merck KGaA, Darmstadt, Germany.

(34) Earnings per share

Basic earnings per share are calculated by dividing the profit after tax attributable to the shareholders of Merck KGaA, Darmstadt, Germany, by the weighted average number of theoretical shares outstanding. The use of a theoretical number of shares takes into account the fact that the general partner's capital is not represented by shares. The share capital of € 168.0 million was divided into 64,621,126 shares. Accordingly, the general partner's capital of € 397.2 million was divided into 152,767,813 theoretical shares. Overall, the total capital thus amounted to € 565.2 million or 217,388,939 theoretical shares outstanding. The weighted average number of shares in 2013 was likewise 217,388,939 in 2013.

As of December 31, 2013 there were no potentially dilutive shares.

Notes to the consolidated balance sheet

(35) Cash and cash equivalents

This item comprised:

€ million	Dec. 31, 2013	Dec. 31, 2012
Cash, bank balances and cheques	332.0	349.1
Short-term cash investment (up to 3 months)	648.8	380.6
	980.8	**729.7**

Changes in cash and cash equivalents as defined by IAS 7 are presented in the cash flow statement.

The maximum default risk is equivalent to the carrying value of the cash and cash equivalents.

(36) Current financial assets

€ million	Dec. 31, 2013	Dec. 31, 2012
Held to maturity investments	53.4	349.7
Available-for-sale financial assets	2,312.1	1,230.1
Loans and receivables	27.3	200.0
Derivative assets (financial transactions)	17.7	18.1
	2,410.5	**1,797.9**

The development of current financial assets resulted mainly from the increase in available-for-sale financial assets to € 2,312.1 million (2012: € 1,230.1 million). As of December 31, 2013, this item mainly included commercial paper amounting to € 915.7 million (2012: € 283.7 million) as well as bonds amounting to € 1,251.7 million (2012: € 616.5 million).

The loans and receivables contained in current financial assets are neither past due nor impaired.

(37) Trade accounts receivable

Trade accounts receivable amounting to € 2,021.4 million (2012: € 2,114.6 million) only existed vis-à-vis third parties.

→ *Notes to the consolidated balance sheet*

Trade accounts receivable past due were as follows:

€ million	Dec. 31, 2013	Dec. 31, 2012
Neither past due nor impaired	1,542.1	1,556.9
Past due, but not impaired		
up to 3 months	127.5	210.5
up to 6 months	6.5	24.7
up to 12 months	2.8	13.3
up to 24 months	3.4	6.6
over 2 years	0.4	3.6
Impaired	338.7	299.0
Carrying amount	**2,021.4**	**2,114.6**

The corresponding allowances developed as follows:

€ million	2013	2012
January 1	**–154.8**	**–149.0**
Additions	–46.5	–68.3
Reversals	42.1	42.4
Utilizations	20.1	20.6
Currency translation and other changes	2.3	–0.5
December 31	**–136.8**	**–154.8**

Due to the large number of products we offer, trade accounts receivable exist vis-à-vis a large number of customers. This diversification helps to reduce risk with respect to potential defaults on receivables. In addition, established credit management processes that take individual customer risks into account are used to assess the recoverability of receivables. If there are indications that individual trade accounts receivable are partly or fully impaired, corresponding allowances are recognized. Additions to allowances relate mainly to receivables from public hospitals and health care organizations in Italy and Spain.

In the period from January 1 to December 31, 2013 trade receivables in Italy and Spain with a nominal value of € 225.7 million were sold for € 215.9 million. Previous impairments in this context amounting to € 26.0 million were reversed and disclosed under other operating income. The sold receivables do not involve any further rights of recovery against the company.

→ *Notes to the consolidated balance sheet*

(38) Inventories

This item comprised:

€ million	Dec. 31, 2013	Dec. 31, 2012
Raw materials and supplies	294.9	308.1
Work in progress and finished goods	1,103.2	1,125.4
Goods for resale	76.1	100.4
	1,474.2	**1,533.9**

Write-downs of inventories amounted to € 94.1 million (2012: € 126.1 million). As of the balance sheet date, the residual carrying amount of inventories that were written down amounted to € 593.3 million (2012: € 572.3 million). In 2013, reversals of inventory write-downs of € 24.4 million were recorded (2012: € 36.3 million). As of the balance sheet date, no inventories were pledged as security for liabilities.

(39) Other assets

Other assets comprised the following:

€ million	current	non-current	Dec. 31, 2013	current	non-current	Dec. 31, 2012
Other receivables	113.8	1.6	115.4	86.5	2.3	88.8
Derivative assets (operational)	72.7	53.9	126.6	23.3	32.0	55.3
Financial items	**186.5**	**55.5**	**242.0**	**109.8**	**34.3**	**144.1**
Receivables from non-income related taxes	99.0	30.4	129.4	94.0	31.4	125.4
Prepaid expenses	34.9	12.2	47.1	34.3	2.2	36.5
Assets from defined benefit plans	3.8	–	3.8	15.2	–	15.2
Other assets	36.5	7.4	43.9	18.2	7.5	25.7
Non-financial items	**174.2**	**50.0**	**224.2**	**161.7**	**41.1**	**202.8**
	360.7	**105.5**	**466.2**	**271.5**	**75.4**	**346.9**

Other receivables included current receivables from related parties amounting to € 32.5 million (2012: € 5.4 million) as well as current receivables from affiliates amounting to € 0.6 million (2012: € 0.3 million). Interest receivables amounted to € 30.6 million (2012: € 27.6 million). In addition, other prepayments were reported under this item.

→ *Notes to the consolidated balance sheet*

Other receivables from third parties past due were as follows:

€ million	Dec. 31, 2013	Dec. 31, 2012
Neither past due nor impaired	109.8	82.0
Past due, but not impaired		
up to 3 months	3.3	4.7
up to 6 months	0.3	0.9
up to 12 months	0.7	0.3
up to 24 months	0.7	0.8
over 2 years	0.2	0.1
Impaired	0.4	–
Carrying amount	**115.4**	**88.8**

In the year under review, allowances for other receivables from third parties amounting to € 0.6 million (2012: € 1.6 million) were necessary. In 2013, these were reported under allowances for receivables; in 2012 under one-time items. There were no reversals of allowances in this connection in 2013 or in 2012.

(40) Tax receivables

Tax receivables amounted to € 109.8 million (2012: € 178.5 million) and resulted from tax prepayments that exceeded the actual amount of tax payable for 2013 and prior fiscal years, and from refund claims for prior years as well as withholding tax credits.

→ *Notes to the consolidated balance sheet*

(41) Intangible assets

€ million	Marketing authorizations, patents, licenses and similar rights, brands, trademarks and other – Finite useful life	Marketing authorizations, patents, licenses and similar rights, brands, trademarks and other – Indefinite useful life	Goodwill	Software	Advance payments	Total
Cost at January 1, 2012	**11,057.1**	**513.2**	**4,758.8**	**332.2**	**26.0**	**16,687.3**
Changes in scope of consolidation	6.1	–	8.0	–	–	14.1
Additions	42.8	81.0	–	5.4	32.0	161.2
Disposals	–1.9	–	–42.5	–82.3	–0.9	–127.6
Transfers	–2.2	–	–	36.6	–21.7	12.7
Classification as held for sale or transfer to a disposal group	–	–	–	–	–	–
Currency translation	–31.0	–0.1	–28.6	–3.8	–	–63.5
December 31, 2012	**11,070.9**	**594.1**	**4,695.7**	**288.1**	**35.4**	**16,684.2**
Accumulated amortization and impairment losses January 1, 2012	**–4,245.0**	**–425.3**	**–42.4**	**–210.3**	**–**	**–4,923.0**
Changes in scope of consolidation	–	–	–	–	–	–
Amortization	–871.6	–	–	–51.3	–	–922.9
Impairment losses	–8.5	–12.3	–	–8.7	–	–29.5
Disposals	1.8	–	42.5	78.3	–	122.6
Transfers	0.4	–	–	–0.4	–	–
Reversals of impairment losses	–	–	–	–	–	–
Classification as held for sale or transfer to a disposal group	–	–	–	–	–	–
Currency translation	9.8	0.1	–0.1	3.3	–	13.1
December 31, 2012	**–5,113.1**	**–437.5**	**–**	**–189.1**	**–**	**–5,739.7**
Net carrying amount as of December 31, 2012	**5,957.8**	**156.6**	**4,695.7**	**99.0**	**35.4**	**10,944.5**
Cost at January 1, 2013	**11,070.9**	**594.1**	**4,695.7**	**288.1**	**35.4**	**16,684.2**
Changes in scope of consolidation	–	–	–	–	–	–
Additions	7.0	64.5	–	1.8	36.3	109.6
Disposals	–13.5	–1.5	–30.1	–11.2	–0.1	–56.4
Transfers	1.0	–0.8	–	36.3	–29.2	7.3
Classification as held for sale or transfer to a disposal group	–46.6	–	–16.5	–	–	–63.1
Currency translation	–86.1	–0.3	–65.9	–10.7	–0.1	–163.1
December 31, 2013	**10,932.7**	**656.0**	**4,583.2**	**304.3**	**42.3**	**16,518.5**
Accumulated amortization and impairment losses January 1, 2013	**–5,113.1**	**–437.5**	**–**	**–189.1**	**–**	**–5,739.7**
Changes in scope of consolidation	–	–	–	–	–	–
Amortization	–813.5	–	–	–42.5	–	–856.0
Impairment losses	–155.5	–1.3	–17.3	–4.3	–	–178.4
Disposals	13.4	1.5	17.3	11.2	–	43.4
Transfers	4.2	–4.1	–	–1.7	–	–1.6
Reversals of impairment losses	–	–	–	–	–	–
Classification as held for sale or transfer to a disposal group	41.0	–	–	–	–	41.0
Currency translation	30.9	0.3	–	8.8	–	40.0
December 31, 2013	**–5,992.6**	**–441.1**	**–**	**–217.6**	**–**	**–6,651.3**
Net carrying amount as of December 31, 2013	**4,940.1**	**214.9**	**4,583.2**	**86.7**	**42.3**	**9,867.2**

→ *Notes to the consolidated balance sheet*

Marketing authorizations, patents, licenses and similar rights, brands, trademarks and other

The net carrying amount of "Marketing authorizations, patents, licenses and similar rights, brands, trademarks and other" with finite useful lives amounting to € 4,940.1 million (2012: € 5,957.8 million) mainly included the identified and capitalized assets from the purchase price allocations for the acquisitions of Serono SA and the Millipore Corporation. The vast majority was attributable to marketing authorizations of active pharmaceutical ingredients and technologies. The remaining useful lives of these assets ranged between 0.5 and 11.0 years. This item also included licenses from these acquisitions with a remaining useful life of up to one year.

The additions to intangible assets with finite useful lives amounted to € 7.0 million in 2013 (2012: € 42.8 million).

In connection with the forthcoming sale of the marketing rights to Egrifta® (tesamorelin for injection) to Theratechnologies Inc., Canada, as of December 31, 2013, intangible assets with a definite useful life in the amount of € 5.6 million were reclassified to "assets held for sale".

The item "Marketing authorizations, patents, licenses and similar rights, brand names, trademarks and other" with indefinite useful lives primarily related to rights that the Group had acquired for active ingredients, products or technologies that were still in the research and development stage. Owing to the uncertainty as to the extent to which these projects will ultimately lead to marketable products, the period for which the resulting capitalized assets would generate an economic benefit for the company could not yet be determined. Amortization will only begin once the products receive marketing approval and is carried out on a straight-line basis over the shorter period of the patent or contract term or the expected useful life.

In 2013, additions to intangible assets with indefinite useful lives amounted to € 64.5 million (2012: € 81.0 million) and related exclusively to the Biopharmaceuticals division. The acquisition of the rights to the active ingredient TH-302 as well as a licensing agreement with BeiGene Co. Ltd., China, accounted for the vast majority of this amount. Further additions were attributable to the acquisition of a license to an oncological compound from Symphogen A/S, Denmark and to milestone payments to Open Monoclonal Technology, Inc. (OMT), USA, and to Ablynx N.V., Belgium.

Goodwill

Goodwill was incurred mainly in connection with the acquisitions of Serono SA and the Millipore Corporation. The changes in goodwill caused by foreign exchange rates resulted almost exclusively from translating the goodwill of the Millipore Corporation, part of which is carried in U.S. dollars, into the reporting currency.

In connection with the forthcoming sale of the Discovery and Development Solutions business field of the Life Science Tools division to Eurofins Scientific S.A., Luxembourg, on December 31, 2013, goodwill allocated to the business field in the amount of € 16.5 million was reclassified to "assets held for sale".

The disposal in the amount of € 30.1 million is due to the closure of the effect pigments production facility Suzhou Taizhu Technology Development Co. Ltd., Taicang, China, and to the goodwill allocated to the Discovery and Development Solutions business field.

→ *Notes to the consolidated balance sheet*

The carrying amounts of "Marketing authorizations, patents, licenses and similar rights, brands, trademarks and other" as well as goodwill were attributable to the divisions as follows:

€ million	Remaining useful life in years	Biopharma-ceuticals	Consumer Health	Performance Materials	Life Science Tools	Total Dec. 31, 2013	Total Dec. 31, 2012
Marketing authorizations, patents, licenses and similar rights, brands, trademarks and other							
Finite useful life		**3,059.5**	**11.0**	**28.3**	**1,841.3**	**4,940.1**	**5,957.8**
Rebif®	6.0	2,209.0	–	–	–	2,209.0	2,577.0
Gonal-f®	5.0	474.7	–	–	–	474.7	569.7
Saizen®	6.0	184.4	–	–	–	184.4	215.1
Humira®	0.5	19.1	–	–	–	19.1	184.8
Avonex®	–	–	–	–	–	–	23.8
Puregon®	1.0	11.5	–	–	–	11.5	22.9
Technologies	0.5–14.0	159.8	0.1	27.7	431.8	619.4	742.2
Brands	0.6–10.5	–	10.9	0.4	244.2	255.5	295.0
Customer relationships	1.0–13.5	1.0	–	0.2	1,165.3	1,166.5	1,327.3
Indefinite useful life	**–**	**212.6**	**–**	**1.9**	**0.4**	**214.9**	**156.6**
Goodwill	**–**	**1,680.0**	**164.1**	**8.2**	**2,730.9**	**4,583.2**	**4,695.7**

Information on impairment tests of intangible assets with indefinite useful lives

Since goodwill and other intangible assets with indefinite useful lives are not amortized, these are subjected to an impairment test if there are indications of impairment, or at least once a year. In fiscal 2013, the goodwill assigned to the Discovery and Development Solutions business field of the Life Science Tools division was impaired by € 17.3 million.

For intangible assets with indefinite useful lives there was an impairment loss in 2013 in the amount of € 1.3 million (2012: € 12.3 million) for a license in the Biopharmaceuticals division. The impairment loss was reported in other operating expenses under impairment losses.

Goodwill and intangible assets with indefinite useful lives which do not generate own cash flows are allocated to cash-generating units for impairment testing. A cash-generating unit is a division as presented in the Segment reporting.

When testing for potential impairments of these assets, the Group determines the recoverable amount by discounting expected cash flows and therefore uses the value-in-use method. Reference is made to the latest forecasts approved by the company management. Among other things, market observations, and – if available – market data, constant target-actual deviations, detailed plans as well as past experience form the basis for cash flow forecasts. Above all, assumptions on existing and future customers, future realizable selling prices and volumes and corresponding costs are made. The existing plans normally cover a period of four years. Cash flows for periods in excess of this are included using an individualized long-term growth rate for the specific cash-generating unit.

→ *Notes to the consolidated balance sheet*

In the business plan, a long-term growth rate of 2.8% was used to measure the goodwill of the Life Science Tools division (2012: 2.8%). The long-term growth rates used for the other divisions are as follows: the Biopharmaceuticals division 0.0% (2012: 1.5%), Consumer Health 2.5% (2012: 2.5%) and Performance Materials 1.0% (2012: 1.0%). The use of division-specific long-term growth rates is suited to taking the specific business and the imminent growth expectations thereof into account.

The expected future cash flows were discounted using a weighted average cost of capital (WACC) of 7.0% (2012: 7.0%).

A 10% reduction in the long-term growth rate was assumed when calculating sensitivity; furthermore sensitivities were calculated for the case that the weighted average cost of capital increases by 10%. Even if the actual long-term growth rate was 10% lower than the expected growth rate, there would be no need to record impairment losses for goodwill. Likewise, there would be no need to record impairment losses if future cash flows were discounted by a weighted average cost of capital that was 10% higher.

Information on impairment losses of intangible assets with finite useful lives

Impairment losses of intangible assets with finite useful lives amounted to € 155.5 million in 2013 (2012: € 8.5 million). Of this amount, an impairment of € 153.5 million was recorded in the income statement as a one-time item under other operating expenses.

An impairment loss was required to be recognized in the amount of € 126.5 million for the intangible asset identified and capitalized for Humira® in connection with the acquisition of Serono SA. This occurred after the Group, based on an out-of-court settlement with AbbVie Biotechnology Ltd., Bermuda, and Abbott GmbH & Co. KG, Germany (collectively "AbbVie"), from the second half of 2014 is to receive no further license payments from AbbVie. An additional impairment loss of € 27.0 million in the Biopharmaceuticals division which was classified as a one-time item related to Egrifta® (tesamorelin for injection) and resulted from the agreement for the transfer of marketing rights to Theratechnologies Inc., Canada. Moreover, an impairment of € 1.1 million was attributable to customer relationships in the Performance Materials division and € 0.9 million to marketing rights in the Biopharmaceuticals division, which were recorded in the income statement as impairment losses under other operating expenses.

In fiscal 2013, software impairments of € 4.3 million (2012: € 8.7 million) were recognized. Thereof, the € 3.3 million in connection with the transfer of the research and development activities from Switzerland to the United States was recognized in the income statement within other operating expenses under one-time items. The additional € 1.0 million was recorded in other operating expenses under impairments.

In 2013, no intangible assets were pledged as security for liabilities.

→ *Notes to the consolidated balance sheet*

(42) Property, plant and equipment

€ million	Land, land rights and buildings, including buildings on third-party land	Plant and machinery	Other facilities, operating and office equipment	Construction in progress and advance payments to vendors and contractors	Total
Cost at January 1, 2012	**2,476.0**	**2,825.2**	**915.2**	**729.0**	**6,945.4**
Changes in scope of consolidation	2.9	3.3	0.1	–	6.3
Additions	8.8	28.3	33.2	260.0	330.3
Disposals	–42.0	–89.8	–67.1	–0.9	–199.8
Transfers	221.9	293.8	31.0	–557.6	–10.9
Classification as held for sale or transfer to a disposal group	–	–	–	–	–
Currency translation	–16.1	–16.4	–5.7	–1.4	–39.6
December 31, 2012	**2,651.5**	**3,044.4**	**906.7**	**429.1**	**7,031.7**
Accumulated depreciation and impairment losses January 1, 2012	**–954.2**	**–2,040.2**	**–663.2**	**–174.4**	**–3,832.0**
Changes in scope of consolidation	–	–	–	–	–
Depreciation	–108.7	–199.4	–88.3	–	–396.4
Impairment losses	–16.0	–21.5	–4.1	–2.5	–44.1
Disposals	26.5	82.7	64.1	0.1	173.4
Transfers	–4.6	1.2	1.6	–	–1.8
Reversals of impairment losses	1.4	–	–	–	1.4
Classification as held for sale or transfer to a disposal group	–	–	–	–	–
Currency translation	4.0	12.6	4.8	–	21.4
December 31, 2012	**–1,051.6**	**–2,164.6**	**–685.1**	**–176.8**	**–4,078.1**
Net carrying amount as of December 31, 2012	**1,599.9**	**879.8**	**221.6**	**252.3**	**2,953.6**
Cost at January 1, 2013	**2,651.5**	**3,044.4**	**906.7**	**429.1**	**7,031.7**
Changes in scope of consolidation	–	–	–	–	–
Additions	8.0	15.1	25.0	360.4	408.5
Disposals	–376.2	–63.5	–46.6	–10.3	–496.6
Transfers	186.9	253.0	63.0	–512.1	–9.2
Classification as held for sale or transfer to a disposal group	–0.8	–4.4	–2.7	–	–7.9
Currency translation	–56.9	–43.8	–20.4	–3.6	–124.7
December 31, 2013	**2,412.5**	**3,200.8**	**925.0**	**263.5**	**6,801.8**
Accumulated depreciation and impairment losses January 1, 2013	**–1,051.6**	**–2,164.6**	**–685.1**	**–176.8**	**–4,078.1**
Changes in scope of consolidation	–	–	–	–	–
Depreciation	–108.9	–187.8	–85.2	–	–381.9
Impairment losses	–29.5	–11.0	–0.8	–0.4	–41.7
Disposals	148.6	62.1	44.7	9.7	265.1
Transfers	–54.2	–108.4	–0.4	166.6	3.6
Reversals of impairment losses	4.7	0.4	–	–	5.1
Classification as held for sale or transfer to a disposal group	0.4	1.8	1.9	–	4.1
Currency translation	20.7	33.0	15.5	–	69.2
December 31, 2013	**–1,069.8**	**–2,374.5**	**–709.4**	**–0.9**	**–4,154.6**
Net carrying amount as of December 31, 2013	**1,342.7**	**826.3**	**215.6**	**262.6**	**2,647.2**

→ *Notes to the consolidated balance sheet*

Impairment losses totaled € 41.7 million in fiscal 2013 (2012: € 44.1 million). Of this total, € 30.3 million was recorded as one-time items under other operating expenses. Of this amount, € 25.3 million was attributable to the buildings of the Biopharmaceuticals division's site in Geneva, Switzerland as well as an additional € 3.9 million to further buildings of the Biopharmaceuticals division. These impairment losses were within the context of the "Fit for 2018" transformation and growth program.

Furthermore, impairments on property, plant and equipment in the amount of € 11.4 million were recognized in other operating expenses under impairment losses. Of this, € 7.4 million was attributable to the Performance Materials division and related to a production plant in the Pigments business. In addition, impairments were recorded for property, plant and equipment in the Biopharmaceuticals division in the amount of € 2.5 million and in the Life Science Tools division of € 1.2 million.

In connection with the forthcoming sale of the Discovery and Development Solutions business field of the Life Science Tools division to Eurofins Scientific S.A., Luxembourg, property, plant and equipment was reclassified to "assets held for sale" as of December 31, 2013, in the amount of € 3.8 million.

The total amount of property, plant and equipment used to secure financial liabilities was immaterial. Total government grants and subsidies in connection with investments in property, plant and equipment during the fiscal year amounted to € 2.9 million (2012: € 12.3 million).

Directly allocable borrowing costs on qualified assets in the amount of € 0.4 million were capitalized.

Property, plant and equipment also included assets that were leased. The total value of capitalized leased assets amounted to € 9.3 million (2012: € 10.1 million) and the corresponding obligations amounted to € 7.7 million (2012: € 9.8 million) (see Note [61]).

The carrying amounts of assets classified as finance leases were as follows:

€ million	Dec. 31, 2013	Dec. 31, 2012
Land and buildings	7.1	8.8
Vehicles	1.4	0.9
Other property, plant and equipment	0.8	0.4
	9.3	**10.1**

(43) Non-current financial assets

€ million	Dec. 31, 2013	Dec. 31, 2012
Investments	19.2	16.1
Investments in associates and other companies	34.3	27.3
Securities – Available-for-sale financial assets	3.8	5.3
Securities – Held to maturity investments	–	30.0
Assets from derivatives (financial transactions)	4.7	0.4
Loans and other non-current financial assets	15.8	18.0
	77.8	**97.1**

→ *Notes to the consolidated balance sheet*

Unconsolidated investments and the investments in associates and other companies were classified as "available for sale". Thereof investments with a carrying amount of € 52.3 million (2012: € 41.8 million) were subsequently measured at cost since their market value could not be determined.

In 2013, impairment losses were recognized for unconsolidated investments of € 1.4 million (2012: € 5.0 million) and for available-for-sale financial assets of € 4.1 million (2012: € 0.1 million). These were recorded in the income statement under other operating expenses.

Moreover, fair value adjustments of € 1.8 million (2012: € 0.4 million) were made on available-for-sale financial assets and recognized in equity.

(44) Financial liabilities

€ million *December 31, 2013*	< 1 year	1 – 5 years	> 5 years	Total
Loans and commercial paper	–	1,730.6	1,412.1	3,142.7
Liabilities to banks	42.2	–	–	42.2
Liabilities to related parties	361.9	–	–	361.9
Loans from third parties and other financial liabilities	24.0	60.0	–	84.0
Liabilities from derivatives (financial transactions)	10.0	49.4	–	59.4
Finance lease liabilities	2.3	5.0	0.4	7.7
	440.4	**1,845.0**	**1,412.5**	**3,697.9**

€ million *December 31, 2012*	< 1 year	1 – 5 years	> 5 years	Total
Loans and commercial paper	749.1	1,734.9	1,411.0	3,895.0
Liabilities to banks	48.1	19.9	–	68.0
Liabilities to related parties	233.1	–	–	233.1
Loans from third parties and other financial liabilities	21.5	66.6	–	88.1
Liabilities from derivatives (financial transactions)	37.1	122.4	–	159.5
Finance lease liabilities	2.5	6.2	1.1	9.8
	1,091.4	**1,950.0**	**1,412.1**	**4,453.5**

→ *Notes to the consolidated balance sheet*

The liabilities of the Group to banks were denominated in the following currencies:

in %	Dec. 31, 2013	Dec. 31, 2012
Euros	14.4	65.6
Argentinian pesos	39.2	13.3
Chinese renminbi	20.5	8.3
Indian rupees	8.4	4.6
Turkish lira	6.9	0.4
U.S. dollars	5.6	4.0
Other currencies	5.0	3.8
	100.0	**100.0**

On the balance sheet date, the bank financing commitments vis-à-vis the Group were as follows:

€ million	Financing commitments from banks	Utilization[1] as of Dec. 31, 2013	Interest	Maturity
Syndicated loan 2013	2,000.0	–	variable	2018
Bilateral credit agreements with banks	22.2	22.2	fixed	2014
Various bank credit lines	245.0	20.0	fixed/ variable	< 1 year
	2,267.2	**42.2**		

[1] Recorded discounts are not taken into account in the disclosure.

A € 2 billion multi-currency revolving credit facility was renewed in fiscal 2013 ("Syndicated Loan 2013"). The credit line was underwritten by an international group of banks and has a tenor of five years, with two extension options of one year each that the Group can exercise at its own discretion. This credit line had not been utilized as of the reporting date.

Furthermore, Merck KGaA, Darmstadt, Germany, had access to a commercial paper program with a volume of € 2 billion to meet short-term capital requirements, which had not been utilized as of the reporting date.

In September 2013, the Group increased the volume of its debt issuance program to € 15 billion. The debt issuance program forms a flexible contractual basis for issuing bonds.

→ *Notes to the consolidated balance sheet*

The following bonds issued by the Group are currently outstanding:

Issuer	Nominal volume	Maturity	Nominal interest rate	Issue price
Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany	€ 1,350 million	March 2010 – March 2015	3.375%	99.769
Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany	€ 100 million	December 2009 – December 2015	3.615%[1]	100.000
Millipore Corporation, USA	€ 250 million	June 2006 – June 2016	5.875%	99.611
Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany	€ 60 million	November 2009 – November 2016	4.000%	100.000
Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany	€ 70 million	December 2009 – December 2019	4.250%	97.788
Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany	€ 1,350 million	March 2010 – March 2020	4.500%	99.582

[1] fixed by interest rate swaps

A bond issued by Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany, with a nominal volume of € 750 million was repaid in September 2013.

The financial liabilities of the Group are not secured by liens or similar forms of collateral. The loan agreements do not contain any financial covenants. The Group's average borrowing cost in 2013 was 3.9%.

Finance lease liabilities represented the present value of future payments arising from finance leases. This item primarily related to liabilities from finance leases for buildings.

Information on liabilities to related parties can be found in Note [67].

(45) Trade accounts payable

Trade accounts payable consisted of the following:

€ million	Dec. 31, 2013	Dec. 31, 2012
Liabilities to third parties	1,363.9	1,288.2
Liabilities to investments	0.2	0.1
	1,364.1	**1,288.3**

Trade accounts payable included accrued amounts of € 778.0 million (2012: € 776.6 million) for outstanding invoices and reductions in sales revenues.

→ *Notes to the consolidated balance sheet*

(46) Other liabilities

This item comprised:

€ million	current	non-current	Dec. 31, 2013	current	non-current	Dec. 31, 2012
Other financial liabilities	578.9	2.2	581.1	520.1	2.8	522.9
Liabilities from derivatives (operational)	1.5	0.6	2.1	12.2	2.8	15.0
Financial items	**580.4**	**2.8**	**583.2**	**532.3**	**5.6**	**537.9**
Accruals for personnel expenses	439.9	–	439.9	466.2	–	466.2
Deferred income	31.6	2.3	33.9	29.5	2.6	32.1
Advance payments received from customers	16.0	–	16.0	10.1	0.1	10.2
Liabilities from non-income related taxes	66.6	0.5	67.1	58.1	1.1	59.2
Non-financial items	**554.1**	**2.8**	**556.9**	**563.9**	**3.8**	**567.7**
	1,134.5	**5.6**	**1,140.1**	**1,096.2**	**9.4**	**1,105.6**

As of December 31, 2013, other financial liabilities included liabilities to related companies amounting to € 373.1 million (2012: € 295.4 million). These are profit entitlements of E. Merck KG, Darmstadt, Germany. Moreover, this item contained liabilities to investments amounting to € 1.6 million (2012: € 3.6 million), interest accruals of € 83.3 million (2012: € 93.0 million) as well as payroll liabilities of € 63.6 million (2012: € 64.8 million). The remaining amount of € 59.5 million (2012: € 66.1 million) recorded under other financial liabilities included among other things liabilities to insurers as well as contractually agreed payment obligations vis-à-vis other companies.

(47) Tax liabilities

Tax liabilities and provisions for tax liabilities resulted in total income tax liabilities of € 465.1 million as of December 31, 2013 (2012: € 401.4 million).

→ *Notes to the consolidated balance sheet*

(48) Provisions

Provisions developed as follows:

€ million	Litigation	Restructuring	Personnel	Environmental protection	Other	Total
January 1, 2013	**678.9**	**351.0**	**168.1**	**106.7**	**271.3**	**1,576.0**
Additions	189.7	69.3	107.3	14.0	97.8	478.1
Utilizations	–29.4	–202.6	–60.1	–10.7	–90.3	–393.1
Release	–50.4	–12.5	–8.3	–1.6	–52.5	–125.3
Interest portion	4.7	–	2.6	3.1	0.1	10.5
Currency translation	–25.6	–2.6	–7.4	–0.3	–4.5	–40.4
Changes in scope of consolidation/Other	4.4	0.2	–0.6	–	–4.0	–
December 31, 2013	**772.3**	**202.8**	**201.6**	**111.2**	**217.9**	**1,505.8**
thereof current	115.4	128.1	66.6	6.0	178.6	494.7
thereof non-current	656.9	74.7	135.0	105.2	39.3	1,011.1

Litigation

As of December 31, 2013, the provisions for legal disputes amounted to € 772.3 million (2012: € 678.9 million). Many of the legal disputes and official proceedings currently pending relate to the Biopharmaceuticals division. The legal matters described below represent the most significant legal risks.

Product-related and patent disputes

Rebif®

In Israel, the Group is party to three legal disputes with Israel Bio-Engineering Project Limited Partnership ("IBEP"). IBEP is asserting claims for intellectual property rights and the payment of license fees in the past and in the future. The legal disputes are connected to the financing of the development of Rebif®, a drug for the treatment of multiple sclerosis, and other products in the early 1980s. The Group has taken appropriate accounting measures.

The Group is also involved in a patent dispute in the United States with Biogen IDEC Inc., USA ("Biogen"). Biogen claims that the sale of Rebif® in the United States infringes on a Biogen patent. The disputed patent was granted to Biogen in 2009 in the United States. Subsequently, Biogen sued the Group and other pharmaceutical companies for infringement of this patent. The Group defended itself against all allegations and brought a countersuit claiming that the patent was invalid and not infringed on by the Group's actions. A "Markman hearing" was held in January 2012. The parties are currently engaged in court-ordered mediation proceedings. The Group has taken appropriate accounting measures.

→ *Notes to the consolidated balance sheet*

Antitrust proceedings

Raptiva®

In December 2011, the Brazilian federal state of São Paulo sued the Group for damages because of alleged collusion between various pharmaceutical companies and an association of patients suffering from psoriasis and vitiligo. The collusion is alleged to have aimed at an increase in the sales of the involved companies' drugs to the detriment of patients and state coffers. Moreover, in connection with the product Raptiva®, patients have filed suit to receive compensatory damages. The Group has taken appropriate accounting measures for these legal disputes in the financial statements.

Drug pricing by the divested Generics Group

The Group continues to bear the risk of having to defend against certain litigation brought against the Generics Group, which was sold to Mylan, Inc. (USA) in 2007. In this context, the Group remains responsible for risks from cases in the United States which relate to drug pricing. The Group has taken appropriate accounting measures.

Paroxetine: In connection with the divested generics business, the Group is subject to antitrust investigations by the British Office of Fair Trading ("OFT") in the United Kingdom. In March 2013, the OFT informed the Group of the assumption that a settlement agreement entered into in 2002 between Generics (UK) Ltd. and several GlaxoSmithKline companies in connection with the antidepressant drug paroxetine violates British and European competition law. As the owner of Generics (UK) Ltd. at the time, the Group was allegedly involved in the settlement negotiations and is therefore liable. The investigations into Generics (UK) Ltd. started in 2011, without the Group being aware of this. It is considered probable that the OFT will impose a fine on the Group. The Group has recognized appropriate provisions in this connection.

Citalopram: In June 2013, the European Commission imposed a fine on the Group for various agreements between its former subsidiary Generics (UK) Ltd. and the Danish company Lundbeck, which related to the antidepressant citalopram, patented by Lundbeck. The provision recognized in 2012 was partially utilized or released. For the remaining risks, appropriate accounting measures were taken. The Group has filed an appeal with the European Court.

In addition to provisions for the mentioned litigation, adequate provisions existed as of the balance sheet date for various smaller pending legal disputes.

Restructuring

Provisions for restructuring mainly include provisions for severance payments for employees in connection with restructuring projects and provisions for onerous contracts. These were recognized once detailed restructuring plans had been prepared and communicated.

In 2013, additional provisions related to the "Fit for 2018" transformation and growth program were set up. The aim of this program, which was established in 2012, is to secure the competitiveness and the growth of the Group over the long term. The provisions recognized in this connection mainly included future commitments to employees such as severance payments and € 31.8 million (2012: € 14.7 million) from partial retirement arrangements. In addition, commitments from the closure of sites were included here. The advance payments made in 2013 in the amount € 202.6 million are primarily due to severance payments to employees.

→ *Notes to the consolidated balance sheet*

Provisions for employee benefits/Share-based payment

Provisions for employee benefits include obligations from long-term variable compensation programs. In 2012, the previous variable compensation program (Long-Term Incentive Plan of Merck KGaA, Darmstadt, Germany – LTIP) was replaced by a new long-term variable compensation plan aligned not only with target achievement based on key performance indicators, but above all with the long-term performance of shares of Merck KGaA, Darmstadt, Germany. With the new Long-Term Incentive Plan of Merck KGaA, Darmstadt, Germany, certain executives and employees could be eligible to receive a certain number of virtual shares – Share Units of Merck KGaA, Darmstadt, Germany, (MSUs) – at the end of a three-year performance cycle. The number of MSUs that could be received depends on the total value defined for the respective person and the average closing price of company shares in Xetra trading during the last 60 trading days prior to January 1 of the respective fiscal year (reference price). In order for members of top management to receive payment, they must personally own an investment in company shares dependent on their respective fixed annual compensation. When the three-year performance cycle ends, the number of MSUs to then be granted is determined based on the development of two key performance indicators (KPIs). These are on the one hand the performance of the company's share price compared to the performance of the DAX® with a weighting of 70% and on the other hand the development of the EBITDA pre margin, during the performance cycle as a proportion of a defined target value with a weighting of 30%. Depending on the development of the KPIs, at the end of the respective performance cycle the eligible participants are granted between 0% and 150% of the MSUs they could be eligible to receive.

Based on the MSUs granted, the eligible participants receive a cash payment at a specified point in time in the year after the three-year performance cycle has ended. The value of a granted MSU, which is relevant for payment, corresponds to the average closing price of company shares in Xetra trading during the last 60 trading days prior to January 1 after the performance cycle. The payment amount is limited to three times the reference price.

	2012 tranche	2013 tranche
Performance cycle	Jan.1, 2012 – Dec. 31, 2014	Jan. 1, 2013 – Dec. 31, 2015
Term	3 years	3 years
Reference price of shares in € (60-day average share price prior to the start of the performance cycle)	69.57	100.11
DAX® value (60-day average of the DAX® prior to the start of the performance cycle)	5,883.35	7,350.64
Potential number of MSUs		
Potential number offered for the first time in 2012	538,235	–
Expired	30,685	–
Status on Dec. 31, 2012	507,550	–
Potential number offered for the first time in 2013	–	389,658
Expired	28,101	11,938
Status on Dec. 31, 2013	479,449	377,720

→ *Notes to the consolidated balance sheet*

The fair value of the obligations is recalculated on each balance sheet date using a Monte Carlo simulation based on the previously described KPIs. The expected volatilities are based on the implicit volatility of company shares and the DAX® in accordance with the remaining term of the LTIP tranche. The dividend payments incorporated into the valuation model orient towards medium-term dividend expectations. The value of the provision for the vesting period already completed was € 63.5 million as of December 31, 2013 (2012: € 17.8 million). The net expense for fiscal 2013 was € 45.7 million (2012: € 17.8 million).

The Executive Board members have their own Long-Term Incentive Plan, the conditions of which largely correspond to the Long-Term Incentive Plan described here. A description of the plan for the Executive Board can be found in the compensation report, which is part of the Statement on Corporate Governance.

Moreover, obligations from the previously valid, non-share-price-based LTIP tranche 2011 exist totaling € 37.3 million (2012: € 50.7 million). The amount paid from these tranches depends on the achievement of the two performance indicators "Underlying Free Cash Flow on Revenues (FCR)" and "Return on Sales (ROS)" at the end of a three-year period. The plan has caps on potential future payments in the event of high degree of target achievement. By contrast, if the level of target of achievement is too low, no payments are made. The Executive Board was excluded from participating in the earlier LTIP tranche.

Provisions for employee benefits also include obligations for the partial retirement program and other severance pay that were not set up in connection with the "Fit for 2018" transformation and growth program as well as obligations in connection with long-term working hour accounts and anniversary bonuses.

With respect to provisions for defined-benefit pensions and other post-employment benefits, see Note [49].

Environmental protection

Provisions for environmental protection mainly existed in Germany and the United States and were set up particularly for obligations from soil remediation and groundwater protection in connection with the discontinued crop protection business.

Other provisions

Other provisions mainly include provisions for purchase commitments, subsequent contract costs stemming from discontinued research projects, other guarantees, and provisions for uncertain commitments from contributions, duties and fees.

A provision recognized for contingent consideration in connection with the acquisition of the microbiology business of Biotest AG, Dreieich, in the amount of € 15.0 million was paid in 2013. Also, in connection with discontinued research projects, recognized provisions were utilized, and a provision recognized for claims from the discontinued businesses was released.

→ *Notes to the consolidated balance sheet*

(49) Provisions for pensions and other post-employment benefits

Depending on the legal, economic and fiscal circumstances prevailing in each country, different retirement benefit systems are provided for the employees of the Group. Generally these systems are based on the years of service and salaries of the employees. Pension obligations of the Group include both defined benefit and defined contribution plans and comprise both obligations from current pensions and accrued benefits for pensions payable in the future. In the Group, defined benefit plans are funded and unfunded. Provisions also contain other post-employment benefits, such as accrued future health care costs for retirees in the United States.

In order to limit the risks of changing capital market conditions and demographic developments, for many years now the Group has been offering only defined contribution plans to newly hired employees.

The value recognized in the balance sheet for pensions and other post-employment benefits was derived as follows:

€ million	Dec. 31, 2013	Dec. 31, 2012
Present value of all defined benefit obligations	**2,736.8**	**2,830.1**
Fair value of the plan assets	–1,840.2	–1,633.6
Funded status	**896.6**	**1,196.5**
Effects of asset ceilings	10.5	–
Net defined benefit liability recognized in the balance sheet	**907.1**	**1,196.5**
Assets from defined benefit plans	3.8	15.2
Provisions for pensions and other post-employment benefits	**910.9**	**1,211.7**

The calculation of the defined benefit obligations as well as the relevant plan assets was based on the following actuarial parameters:

	Germany		Switzerland		United Kingdom		Other countries	
in %	2013	2012	2013	2012	2013	2012	2013	2012
Discount rate	3.75	3.50	2.30	1.75	4.57	4.58	4.76	4.21
Future salary increases	2.51	2.51	1.73	1.97	3.89	3.30	4.03	4.23
Future pension increases	1.75	1.75	0.01	0.02	3.38	2.80	2.34	2.55
Future cost increases for health care benefits	–	–	–	–	–	–	5.10	7.05

These are average values weighted by the present value of the respective benefit obligation.

→ *Notes to the consolidated balance sheet*

The defined benefit obligations of the Group were based on the following types of benefits provided by the respective plan:

	Germany	Other countries	Group
Present value of defined benefit obligations in € million	Dec. 31, 2013	Dec. 31, 2013	Dec. 31, 2013
Benefit based on final salary			
Annuity	1,740.7	383.0	2,123.7
Lump sum	–	73.6	73.6
Installments	1.1	–	1.1
Benefit not based on final salary			
Annuity	83.2	396.9	480.1
Lump sum	6.4	39.3	45.7
Medical plan	–	12.6	12.6
	1,831.4	**905.4**	**2,736.8**

The main benefit rules are as follows:

Merck KGaA, Darmstadt, Germany, and AB Allgemeine Pensions GmbH & Co. KG accounted for € 1,670.6 million (2012: € 1,681.8 million) of the defined benefit obligations and € 1,052.6 million (2012: € 799.5 million) of the plan assets. The benefits comprise old-age, disability and surviving dependent pensions. On the one hand, these obligations are based on benefit rules comprising benefit commitments dependent upon years of service and final salary from which newly hired employees have been excluded. On the other hand, the benefit rules applicable to employees newly hired since January 1, 2005 comprise a direct commitment in the form of a defined contribution obligation. The benefit entitlement results from the cumulative total of annually determined pension components that are calculated on the basis of a defined benefit expense and an age-dependent annuity table. Statutory minimum funding obligations do not exist.

The Biopharmaceuticals division's pension fund in Switzerland accounted for € 314.8 million (2012: € 393.5 million) of the defined benefit obligations and € 324.9 million (2012: € 378.7 million) of the plan assets. Of this amount, € 10.5 million (2012: € 0.0 million) cannot be recognized due to effects of the asset ceiling according to IAS 19.64. These obligations are based on the granting of old-age, disability and surviving dependents benefits, which include the legally required benefits. Both employer and employee contributions are paid into the pension fund. Statutory minimum funding obligations exist.

The Pension Scheme of the Group in the United Kingdom accounted for € 320.1 million (2012: € 303.2 million) of the defined benefit obligations and € 293.1 million (2012: € 284.0 million) of the plan assets. These obligations result from a benefit plan which is based on years of service and final salary and was closed to newly hired employees in 2006. The agreed benefits comprise old-age, disability and surviving dependent benefits. The employer and the employees make contributions to the plan. Statutory minimum funding obligations also exist in the United Kingdom.

→ *Notes to the consolidated balance sheet*

In the reporting period, the following items were recognized in income:

€ million	2013	2012
Current service cost	82.7	75.7
Past service cost	2.6	19.3
Gains (–) or losses (+) on settlement	–2.8	0.1
Other effects recognized in income	1.0	0.6
Interest expense	92.9	101.8
Interest income	–52.1	–53.8
Total amount recognized in income	**124.3**	**143.7**

With the exception of the net balance of interest expense on the defined benefit obligations and interest income from the plan assets, which is recorded under the financial result, the relevant expenses for defined benefit and defined contribution pension systems are allocated to the individual functional areas.

During the reporting period, the present value of the defined pension obligations changed as follows:

€ million	Funded benefit obligations	Benefit obligations funded by provisions	2013	Funded benefit obligations	Benefit obligations funded by provisions	2012
Present value of the defined benefit obligations January 1	2,615.7	214.4	2,830.1	2,322.8	167.1	2,489.9
Currency translation differences	–27.2	–3.5	–30.7	4.8	–0.1	4.7
Current service cost	72.5	10.2	82.7	64.9	10.8	75.7
Past service cost	2.6	–	2.6	17.7	1.6	19.3
Gains (–) or losses (+) on settlement	–2.2	–0.6	–2.8	–	0.1	0.1
Interest expense	85.4	7.5	92.9	93.8	8.0	101.8
Actuarial gains (–)/losses (+)	–49.5	–10.8	–60.3	334.0	33.1	367.1
Contributions by plan participants	7.0	–	7.0	13.6	–	13.6
Pension payments	–178.5	–7.3	–185.8	–240.4	–7.6	–248.0
Other effects recognized in income	–0.3	–0.5	–0.8	0.1	–0.2	–0.1
Other changes	7.5	–5.6	1.9	4.4	1.6	6.0
Present value of all defined benefit obligations on December 31	**2,533.0**	**203.8**	**2,736.8**	**2,615.7**	**214.4**	**2,830.1**

The following overview shows how the present value of all defined benefit obligations would have been influenced by changes to definitive actuarial assumptions. To determine the sensitivities, in principle each of the observed parameters was varied while keeping the measurement assumptions otherwise constant. Insofar as its development of social security is comparable to salary trends, the amounts for social security vary together with the salary trend.

→ *Notes to the consolidated balance sheet*

€ million	Dec. 31, 2013
Present value of all defined benefit obligations if	
the discount rate is 50 basis points higher	2,517.0
the discount rate is 50 basis points lower	2,987.3
the expected rate of future salary increases is 50 basis points higher	2,825.7
the expected rate of future salary increases is 50 basis points lower	2,665.1
the expected rate of future pension increases is 50 basis points higher	2,873.3
the expected rate of future pension increases is 50 basis points lower	2,628.5
the medical cost trend rate is 50 basis points higher	2,737.4
the medical cost trend rate is 50 basis points lower	2,736.3

The fair value of the plan assets changed in the reporting period as follows:

€ million	2013	2012
Fair value of the plan assets on January 1	1,633.6	1,370.3
Currency translation differences	–22.1	6.2
Interest income from plan assets	52.1	53.8
Actuarial gains (+)/losses (–) arising from experience adjustments	49.0	62.8
Funding CTA Merck KGaA, Darmstadt, Germany	200.0	250.0
Employer contributions	39.9	59.9
Employee contributions	7.0	13.6
Pension payments from plan assets	–119.1	–186.3
Plan administration costs paid from the plan assets recognized in income	–1.7	–0.6
Other effects recognized in income	–0.1	–0.1
Other changes	1.6	4.0
Fair value of the plan assets on December 31	**1,840.2**	**1,633.6**

In December 2013 a further € 200.0 million was added to the plan assets of Merck KGaA, Darmstadt, Germany, in the form of a Contractual Trust Arrangement set up in 2011 with an independent registered association founded for this pruposes. On the same day, a company (owned by the registered association), which manages the assets of the CTA, acquired securities from Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany, at the market value of € 203.0 million.

The actual return on plan assets amounted to € 101.1 million in 2013 (2012: income of € 116.6 million). Effects of the asset ceilings in accordance with IAS 19.64 were recognized in the amount of € 10.5 million (2012: € 0.0 million) as actuarial losses. The effects of the asset ceilings as of the balance sheet date amounted to € 10.5 million (2012: € 0.0 million).

→ *Notes to the consolidated balance sheet*

The development of cumulative actuarial gains (+) and losses (–) was as follows:

€ million	2013	2012
Cumulative actuarial gains (+)/losses (–) recognized in equity on January 1	–795.6	–489.7
Currency translation differences	2.0	–1.2
Remeasurements of defined benefit obligations		
Actuarial gains (+)/losses (–) arising from changes in demographic assumptions	–1.1	12.4
Actuarial gains (+)/losses (–) arising from changes in financial assumptions	88.6	–333.2
Actuarial gains (+)/losses (–) arising from experience adjustments	–27.2	–46.3
Remeasurements of plan assets		
Actuarial gains (+)/losses (–) arising from experience adjustments	49.0	62.8
Effects of the asset ceilings		
Actuarial gains (+)/losses (–)	–10.5	–
Reclassification within retained earnings	–	–0.4
Cumulative actuarial gains (+)/losses (–) recognized in equity on December 31	**–694.8**	**–795.6**

Plan assets for funded defined benefit obligations primarily comprised fixed-income securities, liquid assets, and stocks. They did not include financial instruments issued by Group companies or real estate used by Group companies.

The plan assets serve exclusively to meet the defined benefit obligations. Covering the benefit obligations with financial assets represents a means of providing for future cash outflows, which occur in some countries on the basis of legal requirements and in other countries (e.g. Germany) on a voluntary basis.

The ratio of the fair value of the plan assets to the present value of the defined benefit obligations is referred to as the degree of pension plan funding. If the benefit obligations exceed the plan assets, this represents underfunding of the pension fund.

It should be noted, however, that both the benefit obligations as well as the plan assets fluctuate over time. This could lead to an increase in underfunding. Depending on the statutory regulations, it could become necessary in some countries for the Group to reduce underfunding through additions of liquid assets. The reasons for such fluctuations could include changes in market interest rates and thus the discount rate as well as adjustments to other actuarial assumptions (e.g. life expectancy, inflation rates, etc.)

In order to minimize such fluctuations, in managing its plan assets, the Group also pays attention to potential fluctuations in liabilities. In the ideal case, assets and liabilities develop in opposite directions when exposed to exogenous factors, creating a natural defense against these factors. In order to achieve this effect, the corresponding use of financial instruments is considered in respect of individual pension plans.

→ *Notes to the consolidated balance sheet*

The fair value of the plan assets can be allocated to the following categories:

	Dec. 31, 2013			Dec. 31, 2012		
€ million	Quoted market price in an active market	No quoted market price in an active market	Total	Quoted market price in an active market	No quoted market price in an active market	Total
Cash and cash equivalents	522.8	0.1	522.9	455.3	4.1	459.4
Equity instruments	433.8	0.9	434.7	311.5	13.3	324.8
Debt instruments	589.2	0.5	589.7	548.5	–	548.5
Direct investments in real estate	–	79.1	79.1	–	86.4	86.4
Investment funds	136.7	–	136.7	65.9	–	65.9
Insurance contracts	–	71.4	71.4	–	73.6	73.6
Other	5.7	–	5.7	62.9	12.1	75.0
Fair value of the plan assets	**1,688.2**	**152.0**	**1,840.2**	**1,444.1**	**189.5**	**1,633.6**

Employer contributions to plan assets and direct payments to beneficiaries will probably amount to around € 89.3 million in 2014. The weighted duration amounted to 18 years.

The cost of ongoing contributions for defined contribution plans that are financed exclusively by external funds and for which the companies of the Group are only obliged to pay the contributions amounted to € 19.3 million (2012: € 19.9 million). In addition, employer contributions amounting to € 55.5 million (2012: € 54.9 million) were transferred to the German statutory pension insurance system and € 29.7 million (2012: € 33.9 million) to statutory pension insurance systems abroad.

(50) Equity

Equity capital

The total capital of the company consists of the share capital composed of shares and the equity interest held by the general partner E. Merck KG, Darmstadt, Germany. As of the balance sheet date, the company's share capital amounting to € 168.0 million was divided into 64,621,125 no par value bearer shares plus one registered share and is disclosed as subscribed capital. The amount resulting from the issue of shares by Merck KGaA, Darmstadt, Germany, exceeding the nominal amount was recognized in the capital reserves. The equity interest held by the general partner amounted to € 397.2 million.

→ *Notes to the consolidated balance sheet*

Share of net profit of E. Merck KG, Darmstadt, Germany

E. Merck KG, Darmstadt, Germany, and Merck KGaA, Darmstadt, Germany, engage in reciprocal net profit transfers. This makes it possible for E. Merck KG, Darmstadt, Germany, the general partner of Merck KGaA, Darmstadt, Germany, and the shareholders to participate in the net profit/loss of Merck KGaA, Darmstadt, Germany, in accordance with the ratio of the general partner's equity interest and the share capital (70.274% or 29.726% of the total capital).

The allocation of net profit/loss is based on the net income of E. Merck KG, Darmstadt, Germany, determined in accordance with the provisions of the German Commercial Code as well as the income/loss from ordinary activities and the extraordinary result of Merck KGaA , Darmstadt, Germany. These results are adjusted for trade tax and create the basis for the allocation of net profit/loss.

The reciprocal net profit/loss transfer between E. Merck KG, Darmstadt, Germany, and Merck KGaA, Darmstadt, Germany, as stipulated by the Articles of Association was as follows:

		2013		2012	
€ million		E. Merck KG, Darmstadt, Germany	Merck KGaA, Darmstadt, Germany	E. Merck KG, Darmstadt, Germany	Merck KGaA, Darmstadt, Germany
Result of E. Merck KG, Darmstadt, Germany		–9.2	–	7.5	–
Result of ordinary activities of Merck KGaA, Darmstadt, Germany		–	534.9	–	–17.2
Extraordinary result		–	–	–	–513.8
Adjustment for trade tax in accordance with Art. 27 (1) Articles of Association of Merck KGaA, Darmstadt, Germany		–	–	–	–
Trade tax in accordance with Art. 30 (1) Articles of Association of Merck KGaA, Darmstadt, Germany		–	–34.6	–	1.7
Basis for the appropriation of profits	**(100%)**	**–9.2**	**500.3**	**7.5**	**–529.3**
Profit transfer to E. Merck KG, Darmstadt, Germany Ratio general partner's capital to total capital	(70.274%)	351.6	–351.6	–372.0	372.0
Profit transfer from E. Merck KG, Darmstadt, Germany Ratio of share capital to total capital	(29.726%)	2.7	–2.7	–2.2	2.2
Trade tax		–	–	–	–
Corporation tax		–	–12.0	–	4.0
Net income/loss		**345.1**	**134.0**	**–366.7**	**–151.1**

The result of E. Merck KG, Darmstadt, Germany, on which the appropriation of profits is based amounted to € –9.2 million (2012: € 7.5 million). This resulted in a profit transfer to Merck KGaA, Darmstadt, Germany, of € –2.7 million (2012: € 2.2 million). The result from ordinary activities of Merck KGaA, Darmstadt, Germany, adjusted for trade tax and extraordinary result, on which the appropriation of its profit is based, amounted to € 500.3 million (2012: € –529.3 million). Merck KGaA, Darmstadt, Germany, transferred € 351.6 million of its profit to E. Merck KG, Darmstadt, Germany (2012: loss assumption of € 372.0 million). In addition, the expense from corporation tax charges amounting to € 12.0 million resulted (2012: income of € 4.0 million). Corporation tax is only calculated on the income received by shareholders. Its equivalent is the income tax applicable to E. Merck KG, Darmstadt, Germany. However, this must be paid by the partners of E. Merck KG, Darmstadt, Germany, directly and is not disclosed in the annual financial statements.

Appropriation of profits

The profit distribution to be resolved upon by shareholders also defines the amount of that portion of net profit/loss freely available to E. Merck KG, Darmstadt, Germany. If the shareholders resolve to carry forward or to allocate to retained earnings a portion net retained profit of Merck KGaA, Darmstadt, Germany, to which they are entitled, then E. Merck KG, Darmstadt, Germany, is obligated to allocate to the profit brought forward/

→ *Notes to the consolidated balance sheet*

retained earnings of Merck KGaA, Darmstadt, Germany, a comparable sum determined in accordance with the ratio of share capital to general partner's capital. This ensures that the retained earnings and the profit carried forward of Merck KGaA, Darmstadt, Germany, correspond to the ownership ratios of the shareholders on the one hand and E. Merck KG, Darmstadt, Germany, on the other hand. Consequently, for distributions to E. Merck KG, Darmstadt, Germany, only the amount is available that results after netting the profit transfer of Merck KGaA, Darmstadt, Germany, with the amount either allocated or withdrawn by E. Merck KG, Darmstadt, Germany, from retained earnings/profit carried forward. This amount corresponds to the amount that is paid as a dividend to the shareholders, and reflects their pro rata shareholding in the company.

	2013		2012	
€ million	E. Merck KG, Darmstadt, Germany	Merck KGaA, Darmstadt, Germany	E. Merck KG, Darmstadt, Germany	Merck KGaA, Darmstadt, Germany
Net income/net loss	345.1	134.0	–366.7	–151.1
Profit carried forward previous year	–	–	502.5	212.6
Withdrawal from revenue reserves	–	–	114.4	48.4
Transfer to revenue reserves	–	–	–	–
Retained earnings Merck KGaA, Darmstadt, Germany		**134.0**		**109.9**
Withdrawal by E. Merck KG, Darmstadt, Germany	–318.8		–250.2	
Dividend proposal		–122.8		–109.9
Profit carried forward	**26.3**	**11.2**	**–**	**–**

For 2012, a dividend of € 1.70 per share was distributed. The dividend proposal for fiscal 2013 will be € 1.90 per share, corresponding to a total dividend payment of € 122.8 million (2012: € 109.9 million) to shareholders. The amount withdrawn by E. Merck KG, Darmstadt, Germany, would amount to € 318.8 million (2012: € 250.2 million).

Changes in reserves

For 2013 the profit transfer to E. Merck KG, Darmstadt, Germany, including changes in reserves amounted to € –383.0 million. This consists of the profit transfer to E. Merck KG, Darmstadt, Germany, (€ –351.6 million), the result transfer from E. Merck KG, Darmstadt, Germany, to Merck KGaA, Darmstadt, Germany, (€ –2.7 million), the profit carried forward of E. Merck KG, Darmstadt, Germany, (€ 26.3 million) as well as the profit transfer from Merck & Cie, Switzerland a subsidiary of Merck KGaA, Darmstadt, Germany, to E. Merck KG, Darmstadt, Germany (€ –55.0 million). Merck & Cie, Switzerland a subsidiary of Merck KGaA, Darmstadt, Germany, is a partnership under Swiss law that is controlled by Merck KGaA, Darmstadt, Germany, but distributes its operating result directly to E. Merck KG, Darmstadt, Germany. This distribution is a payment to shareholders, which is why it is likewise presented under changes in equity.

Non-controlling interests

The disclosure of non-controlling interests was based on the stated equity of the subsidiaries concerned after any adjustment required to ensure compliance with the accounting policies of the Group, as well as pro rata consolidation entries.

The net equity attributable to non-controlling interests mainly related to the minority interests in Merck Ltd. India, a subsidiary of Merck KGaA, Darmstadt, Germany, Merck Ltd., Thailand, a subsidiary of Merck KGaA, Darmstadt, Germany, Merck (Pvt.) Ltd., Pakistan, a subsidiary of Merck KGaA, Darmstadt, Germany, and P.T. Merck Tbk, Indonesia, a subsidiary of Merck KGaA, Darmstadt, Germany.

Segment reporting

(51) Information by division/country and region

Information by division

	Biopharmaceuticals		Consumer Health	
€ million	2013	2012	2013	2012
Sales	5,953.6	5,995.8	476.9	472.6
Royalty, license and commission income	372.2	409.4	2.7	2.6
Total revenues	**6,325.8**	**6,405.2**	**479.6**	**475.2**
Gross margin	5,219.7	5,212.1	318.3	316.7
Marketing and selling expenses	–1,288.7	–1,370.8	–213.0	–218.5
Royalty, license and commission expenses	–547.7	–561.6	–2.0	–1.0
Administration expenses [1]	–211.3	–216.8	–18.1	–19.9
Other operating expenses and income [1]	–499.4	–669.0	–3.5	–46.2
Research and development	–1,182.8	–1,187.3	–17.1	–19.4
Operating result (EBIT) [1]	**893.0**	**547.7**	**62.2**	**7.6**
Depreciation and amortization	797.4	881.1	8.6	11.5
Impairment losses	196.4	51.2	0.3	10.7
Reversals of impairment losses	–0.3	–	–	–
EBITDA [1]	**1,886.5**	**1,480.0**	**71.1**	**29.8**
One-time items	68.5	344.7	1.4	37.0
EBITDA pre one-time items (segment result) [1]	**1,955.0**	**1,824.7**	**72.5**	**66.8**
EBITDA margin pre one-time items (in % of sales) [1]	32.8	30.4	15.2	14.1
Net operating assets	6,968.0	8,020.6	258.2	283.8
Segment liabilities	–1,358.0	–1,349.8	–74.5	–76.5
Investments in property, plant and equipment [2]	151.3	146.9	3.7	4.0
Investments in intangible assets [2]	80.6	88.7	0.4	0.4
Net cash flows from operating activities [1]	1,818.9	2,255.6	67.1	75.6
Business free cash flow [1]	1,875.7	1,880.2	83.9	88.8

Information by country and region

	Europe		thereof Germany		thereof France		thereof Switzerland	
€ million	2013	2012	2013	2012	2013	2012	2013	2012
Sales by customer location	3,984.6	3,942.7	825.4	801.5	677.0	696.0	159.0	141.6
Sales by company location	4,457.5	4,379.9	1,570.8	1,452.9	790.8	814.9	188.6	174.2
Total revenues	4,686.6	4,677.0	1,596.8	1,472.7	812.5	822.0	364.5	438.4
Intangible assets	7,572.4	8,293.4	398.0	344.9	278.0	302.1	4,692.3	5,343.0
Property, plant and equipment	2,075.2	2,344.3	997.5	996.4	183.6	173.9	508.0	795.2
Research and development	–1,357.4	–1,344.1	–849.0	–791.8	–56.4	–56.0	–411.4	–462.1
Number of employees	20,013	20,777	10,868	10,788	2,946	2,950	1,232	1,926

[1] Previous year's figures have been adjusted, see Note [52]
[2] According to the cash flow statement

→ *Segment reporting*

Performance Materials		Life Science Tools		Corporate and Other		Group	
2013	2012	2013	2012	2013	2012	2013	2012
1,642.1	1,674.2	2,627.5	2,598.2	–	–	10,700.1	10,740.8
2.3	1.4	17.8	18.7	–	–	395.0	432.1
1,644.4	**1,675.6**	**2,645.3**	**2,616.9**	**–**	**–**	**11,095.1**	**11,172.9**
1,028.5	959.1	1,541.0	1,531.1	–4.9	–3.8	8,102.6	8,015.2
–140.5	–142.8	–683.3	–675.7	–1.0	–3.0	–2,326.5	–2,410.8
–1.3	–1.5	–16.1	–15.7	0.1	–	–567.0	–579.8
–27.8	–31.2	–99.2	–101.3	–206.0	–183.0	–562.4	–552.2
–47.9	–32.0	–120.7	–116.5	–46.6	–262.2	–718.1	–1,125.9
–143.0	–137.4	–159.8	–166.1	–1.6	–1.1	–1,504.3	–1,511.3
653.3	**609.7**	**262.0**	**251.7**	**–259.7**	**–453.1**	**1,610.8**	**963.6**
107.7	114.1	309.2	305.0	15.0	7.6	1,237.9	1,319.3
9.3	12.1	18.8	4.2	0.8	0.5	225.6	78.7
–4.5	–1.3	–0.2	–	–0.1	–0.1	–5.1	–1.4
765.8	**734.6**	**589.8**	**560.9**	**–244.0**	**–445.1**	**3,069.2**	**2,360.2**
13.9	7.3	53.0	53.5	47.3	162.2	184.1	604.7
779.7	**741.9**	**642.8**	**614.4**	**–196.7**	**–282.9**	**3,253.3**	**2,964.9**
47.5	44.3	24.5	23.6	–	–	30.4	27.6
1,044.7	1,187.7	5,987.1	6,328.9	36.0	25.1	14,294.0	15,846.1
–155.9	–147.1	–391.9	–383.1	–64.8	–33.7	–2,045.1	–1,990.2
66.5	55.7	112.6	113.2	72.9	9.3	407.0	329.1
6.7	28.6	10.3	10.0	11.6	16.5	109.6	144.2
828.4	886.6	557.5	658.2	–1,046.4	–1,403.8	2,225.5	2,472.2
787.8	798.1	493.8	511.3	–281.2	–309.1	2,960.0	2,969.3

North America		thereof USA		Emerging Markets		Rest of World		Group	
2013	2012	2013	2012	2013	2012	2013	2012	2013	2012
2,078.0	2,128.3	1,916.8	1,965.0	3,795.6	3,712.2	841.9	957.6	10,700.1	10,740.8
2,072.7	2,121.4	1,933.1	1,979.0	3,467.1	3,408.4	702.8	831.1	10,700.1	10,740.8
2,077.1	2,122.1	1,937.5	1,979.7	3,622.3	3,542.7	709.1	831.1	11,095.1	11,172.9
2,214.8	2,462.1	2,214.5	2,461.6	46.5	141.3	33.5	47.7	9,867.2	10,944.5
341.6	359.6	340.4	358.3	169.3	163.7	61.1	86.0	2,647.2	2,953.6
–92.5	–114.5	–94.7	–113.3	–36.6	–28.6	–17.8	–24.1	–1,504.3	–1,511.3
4,911	4,848	4,754	4,688	11,688	11,642	1,542	1,580	38,154	38,847

→ *Segment reporting*

(52) Information on segment reporting

Segmentation was performed in accordance with the organizational and reporting structure of the Group. Within the Biopharmaceuticals division, the Group focuses on specialist therapeutic areas and markets innovative prescription drugs of chemical and biotechnological origin. The Consumer Health division comprises the Group's business with high-quality over-the-counter products for preventive health care and self-treatment of minor ailments. The Performance Materials division consists of the Liquid Crystals and Pigments & Cosmetics business units. The Life Science Tools division offers solutions to two key customer groups: research and analytical laboratories in the pharmaceutical/biotechnology industry or in academic institutions, and customers manufacturing large- and small-molecule drugs. The fields of activity of the individual divisions are described in detail in the sections about the divisions in the Group management report.

Corporate and Other includes assets and liabilities as well as income and expenses that cannot be directly allocated to the reportable segments presented; it serves the reconciliation to the Group numbers. The numbers mainly relate to Group functions. The cash flows attributable to the financial result and income taxes are also presented under Corporate and Other.

Apart from sales, the success of a segment is mainly determined by EBITDA pre one-time items (segment result) and business free cash flow (see Note [55]).

Transfer prices for intragroup sales are determined on an arm's-length basis. There were no significant intercompany relations between the business segments.

The Emerging Markets region comprises Latin America and Asia with the exception of Japan. The Rest of World region comprises Japan, Africa and Australia/Oceania.

Neither in 2013 nor in 2012 did any single customer account for more than 10% of Group sales.

The following table presents the reconciliation of EBITDA pre one-time items of all operating businesses to the profit before income tax of the Group:

€ million	2013	2012
Total EBITDA pre one-time items of the operating businesses[1]	**3,450.0**	**3,247.8**
Corporate and Other[1]	–196.7	–282.9
EBITDA pre one-time items of the Group	**3,253.3**	**2,964.9**
Depreciation and amortization/impairment losses/reversals of impairments	–1,458.4	–1,396.6
One-time items	–184.1	–604.7
Operating result (EBIT)	**1,610.8**	**963.6**
Financial result	–222.2	–254.6
Profit before income tax	**1,388.6**	**709.0**

[1] Previous year's figures have been adjusted, see explanations below

→ *Segment reporting*

EBITDA pre one-time items of all operating businesses totaled € 3,450 million (2012: € 3,247.8 million). Taking into account the expenses and income of € –196.7 million (2012: € –282.9 million) not allocable to the operating businesses which were reported under Corporate and Other, EBITDA pre one-time items of the Group amounted to € 3,253.3 million (2012: € 2,964.9 million). This figure did not include depreciation, amortization, impairments and reversals of impairments or one-time items (excluding impairments and reversals of impairments). Consequently, the total operating result (EBIT) of the Group amounted to € 1,610.8 million (2012: € 963.6 million).

The reconciliation of operating assets presented in the Segment reporting to the total assets of the Group was as follows:

€ million	Dec. 31, 2013	Dec. 31, 2012
Assets	20,818.6	21,643.3
Monetary assets (cash and cash equivalents, current financial assets, loans, securities)	–3,539.3	–2,633.7
Non-operating receivables, income tax receivables, deferred taxes and net defined benefit assets	–913.1	–1,173.3
Assets held for sale	–27.1	–
Operating assets (gross)	**16,339.1**	**17,836.3**
Trade accounts payable	–1,364.1	–1,288.3
Other operating liabilities	–681.0	–701.9
Segment liabilities	**–2,045.1**	**–1,990.2**
Operating assets (net)	**14,294.0**	**15,846.1**

The operating assets (gross) of the Group are determined by adjusting all assets totaling € 20,818.6 million (2012: € 21,643.3 million) for monetary assets totaling € 3,539.3 million (2012 : € 2,633.7 million) as well as all other non-operating assets totaling € 913.1 million (2012: € 1,173.3 million) and assets held for sale of € 27.1 million (2012: € 0.0 million). After deducting the reported segment liabilities which represented the operating liabilities totaling € 2,045.1 million (2012: € 1,990.2 million), the operating assets (net) of the Group amounted to € 14,294.0 million (2012: € 15,846.1 million).

The investment result in the amount of € 1.5 million (2012: € 0.6 million) was disclosed for the first time under other operating expenses in 2013 (Note [28]). As in 2012, it was attributable to Corporate and Other.

Expenses for Group functions at consolidated subsidiaries were no longer allocated to the operating segments in fiscal 2013, but rather disclosed fully under Corporate and Other in the Segment reporting. In order to ensure comparability, the previous year's Segment reporting figures have been adjusted in accordance with the new allocation rules. The effects on the 2012 figures are presented below.

→ *Segment reporting*

The amended allocation of expenses related to administration expenses as well as other expenses and income. Overall, administration expenses under Corporate and Other increased from € 130.2 million by € 52.8 million to € 183.0 million. Other operating expenses and income rose by € 19.5 million to € 262.8 million from € 243.3 million. Considering the positive investment result of € 0.6 million, other operating expenses and income amounted to € 262.2 million.

In the Biopharmaceuticals division, € 33.4 million of the original € 250.2 million in administration expenses was reclassified, resulting in administration expenses of € 216.8 million. Out of the € 674.9 million in other operating expenses and income, € 5.9 million was reclassified. This resulted in other operating expenses and income of € 669.0 million.

In the Consumer Health division, € 3.2 million of the original € 23.1 million in administration expenses was disclosed as Corporate and Other, leaving a balance of € 19.9 million.

In the Performance Materials division, € 4.0 million of the original € 35.2 million in administration expenses was reclassified, resulting in administration expenses of € 31.2 million. Following the reclassification, other operating expenses and income declined by € 7.2 million from € 39.2 million to € 32.0 million.

In the Life Science Tools division, € 12.2 million of the original € 113.5 million in administration expenses was reclassified, resulting in administration expenses of € 101.3 million. Other operating expenses and income declined by € 6.4 million from € 122.9 million to € 116.5 million.

The change in costs in the divisions led to further changes to the earnings and cash flow figures in the Segment reporting. In the operating segments, the respective EBIT, EBITDA, EBITDA pre one-time items, cash flow from operating activities as well as business free cash flow increased by the lower amounts for administration expenses and other operating expenses and income. Moreover, this led to a corresponding increase in the EBITDA margin pre one-time items. The earnings and cash flow figures under Corporate and Other declined in line with allocation of administration expenses and other operating expenses and income. The EBITDA margin pre one-time items also declined accordingly.

Notes to the consolidated cash flow statement

The cash flow statement has been prepared in accordance with IAS 7 "Statement of Cash Flows". It presents the changes in cash and cash equivalents as a result of cash inflows and outflows in the year under review. Further information on cash flows can be found in the explanation of cash and cash equivalents (see Note [35]). The amount of undrawn borrowing facilities that could be tapped for future operating activities and to meet obligations is disclosed in Note [44].

The cash flows reported by Group companies outside Germany are translated at average exchange rates. Due to strong exchange rate effects, in 2013 there were greater effects on the individual balance sheet items. Cash and cash equivalents are translated at the closing rates. The impact of foreign exchange rate changes is disclosed separately under changes in cash and cash equivalents.

Within the cash flows from investing activities and financing activities reclassifications were made with the aim of a clearer and more understandable presentation. The 2012 figures were correspondingly adjusted.

(53) Net cash flows from operating activities

In 2013, tax payments totaled € 491.4 million (2012: € 580.5 million). Tax refunds totaled € 85.9 million (2012: € 18.6 million). Interest paid totaled € 248.3 million (2012: € 303.6 million). Interest received amounted to € 89.5 million (2012: € 59.9 million). Within the scope of a Contractual Trust Arrangement in Germany, in 2013 € 200.0 million was transferred to an independent registered association founded for this pruposes (2012: € 250.0 million). This led to a corresponding decline in pension provisions and to a decrease in cash flows from operating activities.

Net cash flows from operating activities broken down by the segments of the Group are disclosed in Note [51].

(54) Net cash flows from investing activities

A total of € 655.7 million was used for acquisitions and investments in financial assets (2012: € 778.2 million). Of this amount, € 15.1 million (2012: € 20.6 million) was used for acquisitions. In 2013, the line "Acquisitions" reflects a contingent purchase price payment for the microbiology business of Biotest AG, Dreieich, acquired in 2011. Net cash outflows from investments in current and non-current assets amounting to € 640.6 million (2012: € 757.6 million) mainly resulted from the purchase of current financial assets.

In 2013, cash inflows from disposals of assets amounted to € 297.8 (2012: € 93.6 million). The sale of the Biopharmaceuticals division's site in Geneva, Switzerland, resulted in cash inflows of € 251.1 million.

→ *Notes to the consolidated cash flow statement*

(55) Business free cash flow

Business free cash flow is an important performance indicator used to agree internal targets for steering liquidity. It comprises the major payment-relevant items that the individual businesses can influence.

The composition of business free cash flow was as follows:

€ million	2013	2012
EBITDA pre one-time items	**3,253.3**	**2,964.9**
less investments in property, plant and equipment, software as well as advance payments for intangible assets	–446.2	–366.5
Changes in inventories as reported in the balance sheet	59.7	157.2
Changes in trade accounts receivable as reported in the balance sheet	93.2	213.7
Business free cash flow	**2,960.0**	**2,969.3**

This indicator is presented in the Segment reporting (see Note [51]).

Other disclosures

(56) Derivative financial instruments

The Group uses derivative financial instruments exclusively to hedge and reduce risks from currency and interest rate positions. The Group currently uses marketable forward exchange contracts, interest rate swaps and currency options as hedging instruments. Depending on the nature of the hedged item, changes in the fair values of derivatives are recorded in the income statement either in the operating result or in the financial result. The strategy to hedge interest rate and foreign exchange rate fluctuations arising from forecast transactions and transactions already recognized in the balance sheet is set by a Group risk committee, which meets on a regular basis. A planning period of up to 36 months normally serves as the basis for entering into currency derivative contracts. Extensive guidelines regulate the use of derivatives. There is a ban on speculation. Derivative transactions are subject to continuous risk management procedures. Trading, settlement and control functions are strictly separated. Derivative financial contracts are only entered into with banks that have a good credit rating. Related default risks are continuously monitored.

The following derivative financial instruments were held as of the balance sheet date:

	Nominal volume		Fair value	
€ million	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2013	Dec. 31, 2012
Cash flow hedge	4,073.5	5,798.9	82.2	–106.1
Interest	650.0	650.0	–39.9	–58.1
Currency	3,423.5	5,148.9	122.1	–48.0
Fair value hedge	–	–	–	–
Interest	–	–	–	–
Currency	–	–	–	–
No hedge accounting	2,042.5	1,610.1	5.3	5.4
Interest	–	–	–	–
Currency	2,042.5	1,610.1	5.3	5.4
	6,116.0	**7,409.0**	**87.5**	**–100.7**

The nominal volume is the aggregate of all buy and sell amounts relating to derivative financial instruments. The fair values result from the valuation of open positions at market prices, disregarding any offsetting effects from hedged items. They correspond to the income or expenses which would result if the derivatives were closed out as of the balance sheet date. Transactions are recognized at fair value on the basis of quoted prices or current market data provided by a recognized information service.

→ *Other disclosures*

The maturities of the hedging instruments (nominal volume) are as follows as of the balance sheet date:

€ million	Remaining maturity less than 1 year	Remaining maturity more than 1 year	Total Dec. 31, 2013	Remaining maturity less than 1 year	Remaining maturity more than 1 year	Total Dec. 31, 2012
Foreign exchange contracts	3,763.2	1,244.9	5,008.1	3,965.8	2,089.3	6,055.1
Currency options	297.2	160.7	457.9	292.9	411.0	703.9
Interest rate swaps	–	650.0	650.0	–	650.0	650.0
	4,060.4	**2,055.6**	**6,116.0**	**4,258.7**	**3,150.3**	**7,409.0**

The forward exchange contracts and currency options entered into to reduce the exchange rate risk primarily serve to hedge intragroup financing in foreign currency as well as to hedge future cash flows. These mainly served to hedge fluctuations in the exchange rates of the U.S. dollar (€ 3,219.9 million; 2012: € 4,409.6 million), the Swiss franc (€ 603.4 million; 2012: € 528.1 million), the Japanese yen (€ 465.2 million; 2012: € 458.4 million), the British pound (€ 347.3 million; 2012: € 349.1 million) and the Taiwan dollar (€ 215.3 million; 2012: € 388.4 million) versus the euro.

Currency derivatives for which hedge accounting is not applied serve mainly to hedge currency risk from intragroup financing as well as receivables and payables denominated in foreign currency.

Forecast transactions are only hedged if the occurrence can be assumed to be highly probable. The nominal volume of hedged forecast transactions amounted to € 1,868.2 million (2012: € 2,411.6 million) as of the balance sheet date and related to both the hedging of forecast transactions in non-functional currency as well as hedging of variable interest payments for planned refinancing transactions. Moreover, intragroup monetary deposits in foreign currency in the amount of € 1,954.0 million (2012: € 2,732.1 million), intragroup borrowings in foreign currency amounting to € 151.4 million (2012: € 555.3 million) as well as a variable interest private placement with a nominal volume of € 100.0 million were also hedged. These hedging relationships represented cash flow hedges.

Overall, income of € 125.5 million (2012: € 3.6 million) from the fair value measurement of derivatives designated as cash flows hedges was recognized in equity in 2013. € 26.5 million was transferred from equity and recognized as income (2012: € 78.4 million recognized as expense). In 2013, no ineffectiveness resulted from hedge accounting.

The hedging of forecast transactions in non-functional currency related primarily to sales in U.S. dollars, Taiwan dollars and Japanese yen that are expected within the next 36 months. Forward exchange contracts and currency options were used as hedging instruments.

For the planned refinancing of the bond maturing in 2015, we entered into forward starter interest rate swap contracts with a nominal volume of € 550.0 million to hedge the interest rate level. The fair value was recognized in equity at 100% effectiveness.

→ *Other disclosures*

(57) Management of financial risks

Market fluctuations with respect to foreign exchange and interest rates represent significant profit and cash flow risks for the Group. The Group aggregates these Group-wide risks and steers them also by using derivative financial instruments. The Group uses scenario analyses to estimate existing risks of foreign exchange and interest rate fluctuations. The Group is not subject to any material risk cluster from financial transactions. The report on risks and opportunities included in the Group Management Report provides further information on the management of financial risks.

Foreign exchange risks

Owing to its international business focus, the Group is exposed to foreign exchange-related transaction risks within the scope of both ordinary business and financing activities. Different strategies are used to limit or eliminate these risks. Foreign exchange risks from recognized transactions are eliminated as far as possible through the use of forward exchange contracts. Foreign exchange risks arising from forecast transactions are analyzed regularly and reduced if necessary through forward exchange contracts or currency options by applying the hedge accounting rules.

The following table presents the net foreign exchange risk from forecast and recognized transactions in 2013 in the key currencies and the effect of exchange rate fluctuations versus the euro:

€ million *as of Dec. 31, 2013*	CHF	JPY	TWD	USD
Foreign exchange risk from balance sheet items	–474.3	184.4	26.4	1,556.1
Foreign exchange risk from executory contracts and forecast transactions in 2014	–233.4	236.2	239.9	1,220.5
Transaction-related foreign exchange position	**–707.7**	**420.6**	**266.3**	**2,776.6**
Position hedged by derivatives	366.5	–258.1	–88.4	–2,199.7
Open-end foreign exchange risk position	**–341.2**	**162.5**	**177.9**	**576.9**
Change in foreign exchange position [1] due to a 10% appreciation of the euro [2]	34.1	–16.3	–17.8	–57.7
included in profit/loss	10.8	–5.4	–0.9	11.4
recognized in equity	–	12.8	7.1	53.0

[1] Foreign exchange positions include booked and planned transactions. Only the exchange rate effects on booked transactions are reflected in profit/loss or equity.
[2] A 10% devaluation of the euro would have an opposite effect of the same amount.

→ *Other disclosures*

Further significant foreign exchange risks also resulted from transactions recognized in Hong Kong dollars as well as Venezuelan bolivars subject to exchange rate movements versus the U.S. dollar. The changes in foreign exchange positions as a result of a 10% appreciation in the value of the U.S. dollar would be € 9.4 million (2012: € 4.1 million) for the Venezuelan bolivar position, and € –2.2 million (2012: € –0.9 million) for the Hong Kong dollar position, and would be fully recognized in profit or loss. Moreover, derivatives existed to hedge expected cash flows beyond the year 2014. A 10% increase in the value of the euro over the Japanese yen, the Taiwan dollar and the U.S. dollar would have changed equity by € 11.6 million, € 2.1 million and € 40.7 million, respectively. In 2012, owing to hedging of expected cash flows beyond the year 2013, a 10% increase in the value of the euro over the Japanese yen, the Taiwan dollar and the U.S. dollar would have caused a change in equity of € 14.5 million, € 9.8 million and € 65.4 million, respectively.

The corresponding net foreign exchange rate risk from forecast and recognized transactions for 2012 was as follows:

€ million *as of Dec. 31, 2012*	CHF	JPY	TWD	USD
Foreign exchange risk from balance sheet items	–107.8	125.4	28.4	2,082.1
Foreign exchange risk from executory contracts and forecast transactions in 2013	–375.1	304.3	235.7	1,410.1
Transaction-related foreign exchange position	**–482.9**	**429.7**	**264.1**	**3,492.2**
Position hedged by derivatives	177.4	–216.0	–163.8	–2,855.5
Open-end foreign exchange risk position	**–305.5**	**213.7**	**100.3**	**636.7**
Change in foreign exchange position [1] due to a 10% appreciation of the euro [2]	30.6	–21.4	–10.0	–63.7
included in profit/loss	–7.0	–1.4	–	6.2
recognized in equity	–	10.5	13.6	71.2

[1] Foreign currency positions include booked and planned transactions. Only the exchange rate effects of booked transactions are reflected in profit or loss/equity.
[2] A 10% devaluation of the euro would have an opposite effect in the same amount.

In addition to the previously described transaction risks, the Group is also exposed to currency translation risks since many Group companies are located outside the eurozone. The financial statements of these companies are translated into euros. Exchange differences in the assets and liabilities of these companies resulting from currency translation are recognized in equity.

Interest rate risks

Interest rate risks related mainly to monetary deposits in the amount of € 3,469.1 million (2012: € 2,642.7 million) and to a minor extent to financial liabilities of € 3,697.9 million (2012: € 4,453.5 million). The aim is to optimize the interest result and to minimize interest rate risks. If necessary, derivative financial instruments are used to change variable interest payments into fixed interest payments.

→ *Other disclosures*

Relative to net interest liabilities on the balance sheet date, owing to the large proportion of fixed-interest financial instruments, a parallel shift in the yield curve by +100 or –100 basis points would not have a material effect. Assuming a refinancing as well as reinvestment of the same amount for the transactions expiring in 2014, a parallel shift in the yield curve by +100 basis points would lead to income of € 15.6 million (2012: € 12.5 million). A parallel shift in the yield curve by –100 basis points would lead to an expense of € 8.6 million (2012: € 9.6 million). This corresponded to a change in interest income of € 18.0 million (2012: € 14.1 million) or € –9.5 million (2012: € –11.2 million) on financial assets and additional interest expense of € 2.4 million (2012: € 1.6 million) or a decline in interest expense of € 0.9 million (2012: € 1.6 million) on financial liabilities. The resulting change in assets measured at fair value and derivative financial instruments would increase equity by € 33.4 million (2012: increase by € 31.6 million) or lower it by € 38.9 million (2012: lowered by € 41.5 million). The scenario calculations here assumed that the interest rate cannot fall below 0%.

Share price risks

The shares in publicly listed companies amounting to € 5.0 million (2012: € 6.9 million) are generally exposed to a market value risk. A 10% change in the value of the stock market would impact equity by € 0.5 million (2012: € 0.7 million). This change in value would be recognized in profit or loss at the time of disposal.

Liquidity risks

The liquidity risk, meaning the risk that the Group cannot meet its payment obligations resulting from financial liabilities, is limited by establishing the required financial flexibility and by effective cash management. Apart from liquid assets of € 3,391.3 million (2012: € 2,527.6 million), the Group had at its disposal a multi-currency revolving credit facility of € 2 billion with a term running until 2018 and two extension options of one year each as well as bilateral credit facilities and various bank credit lines of € 267.2 million (2012: € 338.2 million). There were no indications that the availability of credit facilities already extended was restricted. Moreover, a commercial paper program with a volume of € 2 billion and a debt issuance program with a volume increased to € 15 billion in 2013 were available. Information on bonds issued by the Group can be found in Note [44].

Liquidity risks are monitored and reported to management on a regular basis. No liens or similar forms of collateral are provided for financial liabilities of the Group. The loan agreements do not contain any financial covenants.

Trade payables amounting to € 1,364.1 million (2012: € 1,288.3 million) had a remaining term of less than one year. With respect to liabilities from operating derivatives amounting to € 2.1 million (2012: € 15.0 million), € 1.5 million (2012: € 12.2 million) was short-term. Out of other financial liabilities amounting to € 581.1 million (2012: € 522.9 million), € 578.9 million (2012: € 520.1 million) was due within one year.

→ *Other disclosures*

The following tables present the contractual cash flows such as repayments and interest on financial liabilities and derivative financial instruments with a negative fair value:

€ million as of Dec. 31, 2013	Carrying amount	Cash flows < one year		Cash flows in 1 – 5 years		Cash flows > 5 years	
		Interest	Repayment	Interest	Repayment	Interest	Repayment
Bonds and commercial paper	3,142.7	127.8	–	333.8	1,722.1	124.5	1,420.0
Liabilities to banks	42.2	4.7	42.2	–	–	–	–
Liabilities to related parties	361.9	0.2	361.9	–	–	–	–
Loans from third parties and other financial liabilities	84.0	6.0	24.0	11.1	56.0	–	4.0
Liabilities from derivatives (financial transactions)	59.4	2.4	10.0	27.6	9.5	14.7	–
Finance leasing liabilities	7.7	0.4	2.3	0.1	5.0	–	0.4
	3,697.9	**141.5**	**440.4**	**372.6**	**1,792.6**	**139.2**	**1,424.4**

€ million as of Dec. 31, 2012	Carrying amount	Cash flows < one year		Cash flows in 1 – 5 years		Cash flows > 5 years	
		Interest	Repayment	Interest	Repayment	Interest	Repayment
Bonds and commercial paper	3,895.0	166.5	750.0	403.2	1,738.2	188.2	1,420.0
Liabilities to banks	68.0	1.9	51.5	1.5	14.8	0.2	1.9
Liabilities to related parties	233.1	0.1	233.1	–	–	–	–
Loans from third parties and other financial liabilities	88.1	6.3	21.5	11.3	62.2	–	4.4
Liabilities from derivatives (financial transactions)	159.5	2.5	37.1	26.3	64.2	32.3	–
Finance leasing liabilities	9.8	0.2	2.5	0.1	6.2	–	1.1
	4,453.5	**177.5**	**1,095.7**	**442.4**	**1,885.6**	**220.7**	**1,427.4**

→ *Other disclosures*

Credit risks

The Group is only subject to a relatively low credit risk, meaning the unexpected loss of payment funds or income. On the one hand, financial contracts are only entered into with banks and industrial companies with good credit ratings and on the other hand, the broad-based business structure of the Group means that there is no particularly high concentration of credit risks with respect to either customers or individual countries. The credit risk with customers is continuously monitored by analyzing the age structure of trade accounts receivable. The financial crisis has led to an increased risk of default in individual eurozone countries. The Group continuously reviews and monitors open positions vis-à-vis all trading partners in the affected countries and takes risk-mitigating measures and accounts for impairments as necessary. On the reporting date, the theoretically maximum default risk corresponded to the carrying amounts.

→ *Other disclosures*

(58) Other disclosures on financial instruments

The following table presents the reconciliation of the balance sheet items to the classes of financial instruments in accordance with IFRS 7 and provides information on fair value measurement:

		Subsequent measurement according to IAS 39				
€ million	Carrying amount Dec. 31, 2013	Amortized cost	At cost	Fair value	Carrying amount according to IAS 17	Non-financial items
Assets						
Cash and cash equivalents	980.8	980,8	–	–	–	–
Current financial assets	2,410.5	80.7	–	2,329.8	–	–
Held for trading (non-derivatives)	–	–	–	–	–	–
Derivatives not in a hedging relationship	6.8	–	–	6.8	–	–
Held to maturity	53.4	53.4	–	–	–	–
Loans and receivables	27.3	27.3	–	–	–	–
Available-for-sale	2,312.1	–	–	2,312.1	–	–
Derivatives in a hedging relationship	10.9	–	–	10.9	–	–
Trade receivables	2,021.4	2,021.4	–	–	–	–
Loans and receivables	2,021.4	2,021.4	–	–	–	–
Current and non-current other assets	466.2	115.4	–	126.6	–	224.2
Derivatives not in a hedging relationship	2.9	–	–	2.9	–	–
Loans and receivables	115.4	115.4	–	–	–	–
Derivatives in a hedging relationship	123.7	–	–	123.7	–	–
Non-financial items	224.2	–	–	–	–	224.2
Non-current financial assets	77.8	15.8	52.3	9.7	–	–
Derivatives not in a hedging relationship	–	–	–	–	–	–
Held to maturity	–	–	–	–	–	–
Loans and receivables	15.8	15.8	–	–	–	–
Available-for-sale	57.3	–	52.3	5.0	–	–
Derivatives in a hedging relationship	4.7	–	–	4.7	–	–
Liabilities						
Current and non-current financial liabilities	3,697.9	3,630.8	–	59.4	7.7	–
Derivatives not in a hedging relationship	4.0	–	–	4.0	–	–
Other liabilities	3,630.8	3,630.8	–	–	–	–
Derivatives in a hedging relationship	55.4	–	–	55.4	–	–
Finance lease liabilities	7.7	–	–	–	7.7	–
Trade accounts payable	1,364.1	1,364.1	–	–	–	–
Other liabilities	1,364.1	1,364.1	–	–	–	–
Current and non-current other liabilities	1,140.1	581.1	–	2.1	–	556.9
Derivatives not in a hedging relationship	0.4	–	–	0.4	–	–
Other liabilities	581.1	581.1	–	–	–	–
Derivatives in a hedging relationship	1.7	–	–	1.7	–	–
Non-financial items	556.9	–	–	–	–	556.9

→ *Other disclosures*

		Subsequent measurement according to IAS 39					
Fair value Dec. 31, 2013	Carrying amount Dec. 31, 2012	Amortized cost	At cost	Fair value	Carrying value according to IAS 17	Non-financial items	Fair value Dec. 31, 2012
980.8	729.7	729.7	–	–	–	–	729.7
	1,797.9	549.7	–	1,248.2	–	–	
–	–	–	–	–	–	–	–
6.8	7.8	–	–	7.8	–	–	7.8
53.4	349.7	349.7	–	–	–	–	349.7
27.3	200.0	200.0	–	–	–	–	200.3
2,312.1	1,230.1	–	–	1,230.1	–	–	1,230.1
10.9	10.3	–	–	10.3	–	–	10.3
	2,114.6	2,114.6	–	–	–	–	
2,021.4	2,114.6	2,114.6	–	–	–	–	2,114.6
	346.9	88.8	–	55.3	–	202.8	
2.9	2.7	–	–	2.7	–	–	2.7
115.4	88.8	88.8	–	–	–	–	88.8
123.7	52.6	–	–	52.6	–	–	52.6
	202.8	–	–	–	–	202.8	
	97.1	48.0	41.8	7.3	–	–	
–	–	–	–	–	–	–	–
–	30.0	30.0	–	–	–	–	30.0
15.8	18.0	18.0	–	–	–	–	18.0
57.3	48.7	–	41.8	6.9	–	–	48.7
4.7	0.4	–	–	0.4	–	–	0.4
	4,453.5	4,284.2	–	159.5	9.8	–	
4.0	4.7	–	–	4.7	–	–	4.7
3,916.6	4,284.2	4,284.2	–	–	–	–	4,715.7
55.4	154.8	–	–	154.8	–	–	154.8
7.7	9.8	–	–	–	9.8	–	9.8
	1,288.3	1,288.3	–	–	–	–	
1,364.1	1,288.3	1,288.3	–	–	–	–	1,288.3
	1,105.6	522.9	–	15.0	–	567.7	
0.4	0.4	–	–	0.4	–	–	0.4
581.1	522.9	522.9	–	–	–	–	522.9
1.7	14.6	–	–	14.6	–	–	14.6
	567.7	–	–	–	–	567.7	

→ *Other disclosures*

Net gains and losses on financial instruments mainly include measurement results from currency translation, fair value adjustments, impairments and reversals of impairments as well as the recognition of premiums and discounts. Dividends and interest are not recognized in the net gains and losses on financial instruments, except for dividends and interest in the category "held for trading". At the Group, the category "held for trading" only includes derivatives not in a hedging relationship.

The net gains and losses on financial instruments by category on the reporting date were as follows:

		Net gains or losses			
€ million 2013	Interest	Impairments	Reversals of impairment	Fair value adjustments	Disposal gains/losses
Financial instrument of the category					
Held for trading	–	–	–	131.7	–
Held to maturity	2.5	–	–	–	–
Loans and receivables	10.3	–47.2	42.1	–	–
Available-for-sale	15.1	–4.1	–	–	1.6
Other liabilities	–163.3	–	–	–	–

		Net gains or losses			
€ million 2012	Interest	Impairments	Reversals of impairments	Fair value adjustments	Disposal gains/losses
Financial instrument of the category					
Held for trading	–	–	–	44.4	–
Held to maturity	10.5	–	–	–	–
Loans and receivables	7.9	–69.9	42.4	–	–
Available-for-sale	11.4	–5.1	20.8	–	0.3
Other liabilities	–195.3	–	–	–	–

In 2013, foreign exchange gains of € 26.0 million resulting from receivables and payables in operating business, their economic hedging, as well as hedging of forecast transactions in operating business were recorded (2012: losses of € 60.4 million). Foreign exchange losses of € 4.3 million resulting from financial balance sheet items, their economic hedging as well as fair value fluctuations of option contracts to hedge forecast transactions were recorded (2012: gains of € 11.2 million).

The fair value of financial assets and liabilities is based on the official market prices and market values quoted on the balance sheet date (Level 1 assets and liabilities) as well as mathematical calculation models with inputs observable in the market on the balance sheet date (Level 2 assets and liabilities). Level 1 assets comprise stocks and bonds and are classified as "available-for-sale", Level 1 liabilities comprise issued bonds and are classified as "other liabilities". Level 2 assets and liabilities are primarily liabilities to banks classified

→ *Other disclosures*

as "other liabilities", interest-bearing securities classified as "available-for-sale" as well as derivatives with and without hedging relationships. The fair value of interest-bearing securities is determined by discounting future cash flows using market interest rates. The fair value measurement of forward exchange contracts and currency options uses spot and forward rates as well as foreign exchange volatilities applying recognized mathematical principles. The fair value of interest rate swaps is determined with standard market valuation models using interest rate curves available in the market.

The fair values of the financial instruments disclosed in the balance sheet and the fair values deviating substantially from the carrying amount were determined as follows:

€ million *as of Dec. 31, 2013*	Assets	Liabilities
Fair value determined by official prices and quoted market values (Level 1)	**1,396.5**	**3,414.3**
thereof available-for-sale	1,396.5	–
thereof other liabilities	–	3,414.3
Fair value determined using inputs observable in the market (Level 2)	**1,069.6**	**563.8**
thereof available-for-sale	920.6	–
thereof derivatives with a hedging relationship	139.3	57.1
thereof derivatives without a hedging relationship	9.7	4.4
thereof other liabilities	–	502.3
Fair value determined using inputs unobservable in the market (Level 3)	**–**	**–**

€ million *as of Dec. 31, 2012*	Assets	Liabilities
Fair value determined by official prices and quoted market values (Level 1)	**818.3**	**4,315.3**
thereof available-for-sale	818.3	–
thereof other liabilities	–	4,315.3
Fair value determined using inputs observable in the market (Level 2)	**492.5**	**574.9**
thereof available-for-sale	418.7	–
thereof derivatives with a hedging relationship	63.3	169.4
thereof derivatives without a hedging relationship	10.5	5.1
thereof other liabilities	–	400.4
Fair value determined using inputs unobservable in the market (Level 3)	**–**	**–**

From an economic perspective, netting is only possible at the Group with derivatives. This possibility results from the framework agreements on derivatives trading which the Group enters into with commercial banks. However, the Group does not offset financial assets and financial liabilities in its balance sheet.

→ *Other disclosures*

The following table presents the potential netting volume of the reported derivative financial assets and liabilities:

€ million as of Dec. 31, 2013	Gross presentation	Netting	Net presentation	Potential netting volume: Due to master netting agreements	Potential netting volume: Due to financial collateral	Potential net amount
Derivative financial assets	149.0	–	149.0	45.9	–	103.1
Derivative financial liabilities	–61.5	–	–61.5	–45.9	–	–15.6

€ million as of Dec. 31, 2012	Gross presentation	Netting	Net presentation	Potential netting volume: Due to master netting agreements	Potential netting volume: Due to financial collateral	Potential net amount
Derivative financial assets	73.8	–	73.8	61.3	–	12.5
Derivative financial liabilities	–174.5	–	–174.5	–61.3	–	–113.2

(59) Capital management

The objective of capital management is to secure the financial flexibility in order to maintain long-term business operations and to realize strategic options. Maintaining a stable investment grade rating, ensuring liquidity, limiting financial risks as well as optimizing the costs of capital are the objectives of our financial policy and set important framework conditions for capital management. Traditionally, the capital market represents a major source of financing for the Group, for instance via bond issues. In addition, the Group has both a commercial paper program for short-term financing on the capital market as well as a multi-currency working capital credit facility of € 2 billion with a term running until 2018 and two extension options, each for one year.

→ *Other disclosures*

The responsible committees decide on the capital structure of the balance sheet, the appropriation of net retained profit and the dividend level.

In this context, net financial debt is one of the leading capital management indicators. It was as follows:

€ million	Dec. 31, 2013	Dec. 31, 2012	Change
Financial liabilities	3,697.9	4,453.5	–755.6
less			
Cash and cash equivalents	980.8	729.7	251.1
Current financial assets	2,410.5	1,797.9	612.6
Net financial debt	**306.6**	**1,925.9**	**–1,619.3**

(60) Contingent liabilities

€ million	Dec. 31, 2013	thereof affiliates	Dec. 31, 2012	thereof affiliates
Guarantees	2.5	–	17.3	–
Warranties	0.9	–	0.8	–
Other contingent liabilities	32.9	–	87.8	–

Other contingent liabilities included, among other things, potential obligations from legal disputes, for which the probability of an outflow of resources did not suffice to recognize a provision as of the balance sheet date.

→ *Other disclosures*

(61) Other financial obligations

Other financial obligations comprised the following:

€ million	Dec. 31, 2013	thereof affiliates	Dec. 31, 2012	thereof affiliates
Obligation to purchase the entire share capital of AZ Electronic Materials S.A.	1,876.5	–	–	–
Obligations to acquire intangible assets	2,000.2	–	1,670.7	–
Obligations to acquire property, plant and equipment	44.7	–	111.8	–
Future operating lease payments	172.0	–	207.9	–
Long-term purchase commitments	151.5	–	186.5	–
Other financial obligations	29.0	–	14.8	–
	4,273.9	**–**	**2,191.7**	**–**

In connection with the offer published by the Group on December 20, 2013 to acquire AZ Electronic Materials S.A., Luxembourg, (AZ), a conditional financial commitment exists in the amount of € 1,876.5 million (£ 1,565 million; based on an exchange rate of € 1 = £ 0.834 on December 31, 2013) for the purchase of the entire share capital of AZ in cash. Among other things, the successful completion of the transaction is subject to antitrust approval as well as the achievement of a minimum acceptance level of 95% of the share capital.

Obligations to acquire intangible assets existed in particular within the scope of research and development collaborations. Here the Group has obligations to make milestone payments when its partner achieves certain objectives. In the unlikely event that all contract partners achieve all milestones, the Group would be obligated to pay up to € 2,000.2 million (2012: € 1,670.7 million) for the acquisition of intangible assets.

Our expectations regarding the potential maturities of these obligations were as follows:

€ million	Dec. 31, 2013	Dec. 31, 2012
Obligations to acquire intangible assets		
within one year	56.8	140.3
in 1 – 5 years	508.4	308.9
more than 5 years	1,435.0	1,221.5
	2,000.2	**1,670.7**

Other financial obligations were recognized at nominal value.

→ *Other disclosures*

The maturities of liabilities from lease agreements were as follows:

€ million *Dec. 31, 2013*	within 1 year	1 – 5 years	more than 5 years	Total
Present value of future payments from finance leases	2.3	5.0	0.4	7.7
Interest component of finance leases	0.4	0.1	0.1	0.6
Future finance lease payments	**2.7**	**5.1**	**0.5**	**8.3**
Future operating lease payments	**64.9**	**103.0**	**4.1**	**172.0**

€ million *Dec. 31, 2012*	within 1 year	1 – 5 years	more than 5 years	Total
Present value of future payments from finance leases	2.5	6.2	1.1	9.8
Interest component of finance leases	0.2	0.1	–	0.3
Future finance lease payments	**2.7**	**6.3**	**1.1**	**10.1**
Future operating lease payments	**72.0**	**126.9**	**9.0**	**207.9**

Operating lease agreements related mainly to customary leasing arrangements to lease operating and office equipment. The payments resulting from operating lease agreements amounted to € 104.0 million (2012: € 102.6 million) and were recorded as an expense in the reporting period.

(62) Personnel expenses/Headcount

Personnel expenses comprised the following:

€ million	2013	2012
Wages and salaries	2,611.8	3,007.2
Compulsory social security contributions and special financial assistance	368.0	398.3
Pension expenses	146.6	159.0
	3,126.4	**3,564.5**

→ *Other disclosures*

The decrease in personnel expenses compared to the prior year was primarily due to the reduction of one-time effects in connection with "Fit for 2018" transformation and growth program. In 2012, € 381.6 million related to expenses for severance pay.

As of December 31, 2013, the Group had 38,154 employees (2012: 38,847). The average number of employees during the year was 38,282 (2012: 39,939).

The breakdown of personnel by function was as follows:

Average number of employees	2013	2012
Production	9,985	9,486
Logistics	1,779	1,665
Marketing and Sales	12,214	12,353
Administration	5,106	4,416
Research & Development	4,433	4,558
Infrastructure and Other	4,765	7,461
	38,282	**39,939**

In 2013, the Group substantially increased transparency by assigning all positions to a standardized job profile. In this way, positions that were previously not assigned to specific functional areas were assigned according to function.

(63) Material costs

Material costs in 2013 amounted to € 1,473.2 million (2012: € 1,496.4 million) and was reported under cost of sales.

(64) Auditors' fees

The costs of the auditors (KPMG) of the financial statements of the Group consisted of the following:

	2013		2012	
€ million	Group	thereof KPMG Germany	Group	thereof KPMG Germany
Audits of financial statements	5.2	1.5	5.4	1.4
Other audit-related services	0.4	0.2	0.6	0.2
Tax consultancy services	0.8	0.7	0.4	0.3
Other services	0.4	0.3	0.2	–
	6.8	**2.7**	**6.6**	**1.9**

→ *Other disclosures*

(65) Corporate governance

The Statement of Compliance in accordance with section 161 of the German Stock Corporation Act (Aktiengesetz) was published in the corporate governance section of our website www.emdgroup.com/investors → corporate governance in March 2013 and thus made permanently available.

(66) Companies opting for exemption under section 264 (3) HGB or section 264b HGB

The following companies, which have been consolidated in these financial statements, have opted for exemption:
Allergopharma GmbH & Co. KG, Reinbek
Allergopharma Verwaltungs GmbH, Darmstadt
Chemische Fabrik Lehrte Dr. Andreas Kossel GmbH, Lehrte
Chemitra GmbH, Darmstadt
heipha Dr. Müller Gmbh, Eppelheim
Litec LLL GmbH, Greifswald
Merck Accounting Solutions & Services Europe GmbH, Darmstadt, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany
Merck Chemicals GmbH, Schwalbach, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany
Merck Consumer Health Care Holding GmbH, Darmstadt, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany
Merck Export GmbH, Darmstadt, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany
Merck Selbstmedikation GmbH, Darmstadt, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany
Merck Serono GmbH, Darmstadt, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany
Merck Versicherungsvermittlung GmbH, Darmstadt, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany

(67) Related-party disclosures

Related parties in respect of the Group are E. Merck KG, Darmstadt, Germany as well as Emanuel-Merck-Vermögens-KG, Darmstadt, Germany, and E. Merck Beteiligungen KG, Darmstadt, Germany. In principle, direct or indirect subsidiaries of Merck KGaA, Darmstadt, Germany, associates and joint ventures of the Group as well as pension funds that are classified as funded defined benefit plans in accordance with IAS 19 are also related parties within the meaning of IAS 24. Members of the Executive Board and the Supervisory Board of Merck KGaA, Darmstadt, Germany, the Executive Board and the Board of Partners of E. Merck KG, Darmstadt, Germany, as well as close members of their families are also related parties.

As of December 31, 2013, there were liabilities by Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany, Merck KGaA, Darmstadt, Germany, and Merck & Cie, Altdorf, Switzerland, a subsidiary of Merck KGaA, Darmstadt, Germany, to E. Merck KG, Darmstadt, Germany. in the amount of € 734.7 million (2012: € 528.1 million) as well as by Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany, to Merck Capital Asset Management, Malta, which is part of the Contractual Trust Arrangement of Merck KGaA, Darmstadt, Germany, and other companies of the Group and Merck Capital Asset Management Holding, Malta, which is part of the Contractual Trust Arrangement of Merck KGaA,

→ *Other disclosures*

Darmstadt, Germany, and other companies of the Group amounting to € 0.2 million (2012: € 0.3 million) and € 0.1 million (2012: € 0.1 million), respectively. In addition, as of December 31, 2013, Merck KGaA, Darmstadt, Germany, had receivables from E. Merck Beteiligungen KG, Darmstadt, Germany, in the amount of € 32.5 million (2012: € 5.4 million). The balances result mainly from the profit transfers by Merck & Cie, a subsidiary of Merck KGaA, Darmstadt, Germany, to E. Merck KG, Darmstadt, Germany, as well as the reciprocal profit transfers between Merck KGaA, Darmstadt, Germany, and E. Merck KG, Darmstadt, Germany. They included financial payables of € 361.9 million (2012: € 233.1 million) which were subject to standard market interest rates.

From January to December 2013, Merck KGaA, Darmstadt, Germany, performed services for E. Merck KG, Darmstadt, Germany, with a value of € 1.2 million (2012: € 1.2 million), for Emanuel-Merck-Vermögens-KG, Darmstadt, Germany, with a value of € 0.4 million (2012: € 0.3 million) and for E. Merck Beteiligungen KG, Darmstadt, Germany, with a value of € 0.3 million (2012: € 0.3 million). During the same period, E. Merck KG, Darmstadt, Germany, performed services for Merck KGaA, Darmstadt, Germany, with a value of € 0.5 million (2012: € 0.5 million).

During the reporting period, Merck KGaA, Darmstadt, Germany, sold a piece of developed land to Emanuel-Merck-Vermögens-KG, Darmstadt, Germany. The purchase price of € 4.3 million corresponded to the market value, which an independent expert third party determined in an appraisal.

Business transactions with major subsidiaries were eliminated during consolidation. Information on pension funds that are classified as funded defined benefit plans in accordance with IAS 19 can be found under Note [49]. There were no further material transactions with these pension funds.

From January to December 2013, there were no transactions between companies of the Group and associates, as was the case in 2012. As in the previous year, companies of the Group had no receivables or liabilities vis-à-vis associates as of December 31, 2013.

There were no material transactions such as, for example, the provision of services or the granting of loans, between companies of the Group and members of the Executive Board and the Supervisory Board of Merck KGaA, Darmstadt, Germany, the Executive Board and the Board of Partners of E. Merck KG, Darmstadt, Germany, or members of their immediate families.

(68) Executive Board and Supervisory Board compensation

The compensation of the Executive Board of Merck KGaA, Darmstadt, Germany, is paid by the general partner, E. Merck KG, Darmstadt, Germany, and recorded as an expense in its income statement. For the period from January to December 2013 fixed salaries of € 4.9 million (2012: € 4.9 million), variable compensation of € 17.6 million (2012: € 11.2 million), and additional benefits of € 0.1 million (2012: € 0.1 million) were recorded for members of the Executive Board of Merck KGaA, Darmstadt, Germany. Furthermore, additions to the provisions of E. Merck KG, Darmstadt, Germany, for the Long-Term Incentive Plan totaled € 8.0 million (2012: € 3.1 million), and to the pension provisions of E. Merck KG, Darmstadt, Germany, include current service costs of € 2.5 million (2012: € 1.9 million) for members of the Executive Board of Merck KGaA, Darmstadt, Germany.

Subject to the approval of the Annual General Meeting on the proposed distribution of a dividend of € 1.90 per share, the compensation of the Supervisory Board amounting to € 874.4 thousand (2012: € 694.0 thousand) consists of a fixed portion of € 599.5 thousand (2012: € 122.5 thousand) and a variable portion of € 202.2 thousand (2012: € 571.5 thousand), as well as meeting attendance compensation of € 45.7 thousand (2012: € 0.0 thousand).

Further individualized information and details can be found in the Compensation Report on pages 154 et seq.

→ *Other disclosures*

(69) Information on preparation and approval

The Executive Board of Merck KGaA, Darmstadt, Germany, prepared the consolidated financial statements on February 17, 2014 and approved them for forwarding to the Supervisory Board. The Supervisory Board has the responsibility to examine the consolidated financial statements and to declare whether it approves them.

(70) Subsequent events

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

(71) List of shareholdings

The following table presents the list of shareholdings of the Group as of December 31, 2013.

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
I. Fully consolidated companies				
Germany				
Germany	Merck KGaA, Darmstadt, Germany	Darmstadt	Parent company	
Germany	AB Allgemeine Pensions GmbH & Co. KG	Zossen	100.00	100.00
Germany	Allergopharma GmbH & Co. KG	Reinbek	100.00	
Germany	Allergopharma Verwaltungs GmbH	Darmstadt	100.00	100.00
Germany	Biochrom GmbH	Berlin	100.00	
Germany	Chemische Fabrik Lehrte Dr. Andreas Kossel GmbH	Lehrte	100.00	100.00
Germany	Chemitra GmbH	Darmstadt	100.00	100.00
Germany	Emedia Export Company mbH	Gernsheim	100.00	
Germany	heipha Dr. Müller GmbH	Eppelheim	100.00	100.00
Germany	IHS - Intelligent Healthcare Solutions GmbH	Frankfurt/Main	100.00	
Germany	Litec-LLL GmbH	Greifswald	100.00	100.00
Germany	Merck 15. Allgemeine Beteiligungs-GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	
Germany	Merck Accounting Solutions & Services Europe GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00
Germany	Merck Chemicals GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Schwalbach	100.00	
Germany	Merck China Chemicals Holding GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	
Germany	Merck Consumer Health Care Holding GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00
Germany	Merck Export GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00

→ *Other disclosures*

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
Germany	Merck Financial Services GmbH, Germany a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00
Germany	Merck Financial Trading GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Gernsheim	100.00	100.00
Germany	Merck Holding GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Gernsheim	100.00	100.00
Germany	Merck International GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00
Germany	Merck Internationale Beteiligungen GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	
Germany	Merck Schuchardt OHG, a subsidiary of Merck KGaA, Darmstadt, Germany	Hohenbrunn	100.00	100.00
Germany	Merck Selbstmedikation GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	
Germany	Merck Serono GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00
Germany	Merck Versicherungsvermittlung GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00
Germany	Merck Vierte Allgemeine Beteiligungsgesellschaft mbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Gernsheim	100.00	
Other European countries				
Switzerland	Allergopharma AG	Therwil	100.00	
Switzerland	Ares Trading SA	Aubonne	100.00	
Switzerland	Merck & Cie, a subsidiary of Merck KGaA, Darmstadt, Germany	Altdorf	51.63	51.63
Switzerland	Merck (Schweiz) AG, a subsidiary of Merck KGaA, Darmstadt, Germany	Zug	100.00	
Switzerland	Merck Biosciences AG, a subsidiary of Merck KGaA, Darmstadt, Germany	Läufelfingen	100.00	
Switzerland	Merck Serono SA, a subsidiary of Merck KGaA, Darmstadt, Germany	Coinsins	100.00	
Switzerland	Millipore AG	Zug	100.00	
Switzerland	SeroMer Holding SA	Chéserex	100.00	
France	Laboratoire Médiflor S.A.S.	Lyon	100.00	
France	Merck Biodevelopment S.A.S., a subsidiary of Merck KGaA, Darmstadt, Germany	Lyon	100.00	
France	Merck Chimie S.A.S., a subsidiary of Merck KGaA, Darmstadt, Germany.	Fontenay s/Bois	100.00	
France	Merck Médication Familiale S.A.S., a subsidiary of Merck KGaA, Darmstadt, Germany.	Lyon	100.00	
France	Merck S.A., a subsidiary of Merck KGaA, Darmstadt, Germany.	Lyon	99.83	
France	Merck Santé S.A.S., a subsidiary of Merck KGaA, Darmstadt, Germany.	Lyon	100.00	
France	Merck Serono S.A.S., a subsidiary of Merck KGaA, Darmstadt, Germany.	Lyon	100.00	
France	Millipore S.A.S.	Molsheim	100.00	

→ *Other disclosures*

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
United Kingdom	Celliance Ltd.	Edinburgh	100.00	
United Kingdom	Lamberts Healthcare Ltd.	Tunbridge Wells	100.00	
United Kingdom	Merck Chemicals Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Nottingham	100.00	
United Kingdom	Merck Consumer Health Care Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Hull	100.00	
United Kingdom	Merck Cross Border Trustees Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Hull	100.00	
United Kingdom	Merck Holding Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Feltham	100.00	
United Kingdom	Merck Investments Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Hull	100.00	
United Kingdom	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Hull	100.00	
United Kingdom	Merck Pension Trustees Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Hull	100.00	
United Kingdom	Merck Serono Europe Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	London	100.00	
United Kingdom	Merck Serono Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Feltham	100.00	
United Kingdom	Millipore (U.K.) Ltd.	Feltham	100.00	
United Kingdom	Millipore UK Holdings LLP	London	100.00	
United Kingdom	Serologicals Global Holding Company Ltd.	London	100.00	
United Kingdom	Seven Seas Ltd.	Hull	100.00	
United Kingdom	Upstate Ltd.	London	100.00	
Italy	Allergopharma S.p.A.	Vimodrone	100.00	
Italy	Istituto di Ricerche Biomediche Antoine Marxer RBM S.p.A.	Colleretto Giacosa	100.00	
Italy	Merck S.p.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Vimodrone	100.00	
Italy	Merck Serono S.p.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Rome	99.74	
Italy	Millipore S.p.A.	Vimodrone	100.00	
Spain	Merck, S.L., a subsidiary of Merck KGaA, Darmstadt, Germany	Madrid	100.00	
Spain	Millipore Iberica S.A.	Madrid	100.00	
Belgium	Merck Chemicals N.V./S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Overijse	100.00	
Belgium	Merck Consumer Healthcare N.V.-S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Overijse	100.00	
Belgium	Merck N.V.-S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Overijse	100.00	
Bulgaria	Merck Bulgaria EAD, a subsidiary of Merck KGaA, Darmstadt, Germany	Sofia	100.00	
Denmark	Merck A/S, a subsidiary of Merck KGaA, Darmstadt, Germany	Hellerup	100.00	
Denmark	Millipore A/S	Hellerup	100.00	

→ *Other disclosures*

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
Denmark	Survac ApS	Frederiksberg	100.00	100.00
Estonia	Merck Serono OÜ, a subsidiary of Merck KGaA, Darmstadt, Germany	Tallinn	100.00	
Finland	Merck OY, a subsidiary of Merck KGaA, Darmstadt, Germany	Espoo	100.00	
Finland	Millipore OY	Espoo	100.00	
Greece	Merck A.E., a subsidiary of Merck KGaA, Darmstadt, Germany	Maroussi	100.00	
Ireland	Merck Millipore Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Carrigtwohill	100.00	
Ireland	Merck Serono (Ireland) Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Dublin	100.00	
Ireland	Millipore Cork, a subsidiary of Merck KGaA, Darmstadt, Germany	Carrigtwohill	100.00	
Ireland	Millipore Dublin International Finance Company, a subsidiary of Merck KGaA, Darmstadt, Germany	Dublin	100.00	
Ireland	Tullagreen Holdings Ltd.	Dublin	100.00	
Croatia	Merck d.o.o., a subsidiary of Merck KGaA, Darmstadt, Germany	Zagreb	100.00	
Latvia	Merck Serono SIA, a subsidiary of Merck KGaA, Darmstadt, Germany	Riga	100.00	
Lithuania	Merck Serono, UAB, a subsidiary of Merck KGaA, Darmstadt, Germany	Kaunas	100.00	
Luxembourg	Merck Chemicals Holding S.a.r.l., a subsidiary of Merck KGaA, Darmstadt, Germany	Luxembourg	100.00	
Luxembourg	Merck Finance S.a.r.l., a subsidiary of Merck KGaA, Darmstadt, Germany	Luxembourg	100.00	100.00
Luxembourg	Merck Holding S.a.r.l., a subsidiary of Merck KGaA, Darmstadt, Germany	Luxembourg	100.00	
Luxembourg	Merck Re S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Luxembourg	100.00	
Luxembourg	Merck-Finanz AG, a subsidiary of Merck KGaA, Darmstadt, Germany	Luxembourg	100.00	100.00
Luxembourg	Millilux S.a.r.l.	Luxembourg	100.00	
Luxembourg	Millipart S.a.r.l.	Luxembourg	100.00	
Luxembourg	Millipore International Holdings, S.a.r.l.	Luxembourg	100.00	
Malta	Merck Capital Holding Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Pietà	100.00	58.88
Malta	Merck Capital Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Pietà	100.00	
Netherlands	Merck B.V., a subsidiary of Merck KGaA, Darmstadt, Germany	Schiphol-Rijk	100.00	
Netherlands	Merck Chemicals B.V., a subsidiary of Merck KGaA, Darmstadt, Germany	Amsterdam Zuidoost	100.00	
Netherlands	Serono Tri Holdings B.V.	Schiphol-Rijk	100.00	
Norway	Merck AB, Branch Office Norway, a subsidiary of Merck KGaA, Darmstadt, Germany	Oslo	100.00	
Norway	Millipore AS	Oslo	100.00	

→ *Other disclosures*

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
Austria	Allergopharma Vertriebsgesellschaft m.b.H.	Vienna	100.00	
Austria	Merck Gesellschaft mbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Vienna	100.00	
Austria	Merck KGaA & Co. Werk Spittal, a subsidiary of Merck KGaA, Darmstadt, Germany	Spittal	100.00	99.00
Austria	Millipore Gesellschaft mbH	Vienna	100.00	
Poland	Merck Sp.z o.o., a subsidiary of Merck KGaA, Darmstadt, Germany	Warsaw	100.00	
Portugal	Merck, S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Algés	100.00	
Romania	Merck Romania S.R.L., a subsidiary of Merck KGaA, Darmstadt, Germany	Bucharest	100.00	
Russia	Merck LLC, a subsidiary of Merck KGaA, Darmstadt, Germany	Moscow	100.00	
Sweden	Merck AB, a subsidiary of Merck KGaA, Darmstadt, Germany	Solna	100.00	
Sweden	Merck SeQuant AB, a subsidiary of Merck KGaA, Darmstadt, Germany	Umea	100.00	
Sweden	Millipore AB	Solna	100.00	
Serbia	Merck d.o.o. Beograd, a subsidiary of Merck KGaA, Darmstadt, Germany	Belgrade	100.00	
Slowakia	Merck spol.s.r.o., a subsidiary of Merck KGaA, Darmstadt, Germany	Bratislava	100.00	
Slovenia	Merck d.o.o., a subsidiary of Merck KGaA, Darmstadt, Germany	Ljubljana	100.00	
Czech Republic	Merck spol.s.r.o., a subsidiary of Merck KGaA, Darmstadt, Germany	Prague	100.00	
Turkey	Merck Ilac Ecza ve Kimya Ticaret AS, a subsidiary of Merck KGaA, Darmstadt, Germany	Istanbul	100.00	
Hungary	Merck Kft., a subsidiary of Merck KGaA, Darmstadt, Germany	Budapest	100.00	
North America				
United States	Amnis Corp.	Seattle	100.00	
United States	EMD Accounting Solutions & Services America, Inc.	Quincy	100.00	
United States	EMD Holding Corp.	Rockland	100.00	
United States	EMD Millipore Corp.	Billerica	100.00	
United States	EMD Serono Holding Inc.	Rockland	100.00	
United States	EMD Serono Research & Development Institute, Inc.	Billerica	100.00	
United States	EMD Serono, Inc.	Rockland	100.00	
United States	Millipore Asia Ltd.	Wilmington	100.00	
United States	Millipore Pacific Ltd.	Wilmington	100.00	
United States	Millipore UK Holdings I, LLC	Wilmington	100.00	
United States	Millipore UK Holdings II, LLC	Wilmington	100.00	
United States	Serono Laboratories Inc.	Rockland	100.00	

→ *Other disclosures*

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
Puerto Rico	EMD Millipore Corp., Puerto Rico Branch	Cidra	100.00	
Canada	EMD Chemicals Canada Inc.	Toronto	100.00	
Canada	EMD Crop BioScience Canada Inc.	Toronto	100.00	
Canada	EMD Inc.	Mississauga	100.00	
Canada	Millipore (Canada) Ltd.	Toronto	100.00	
Emerging Markets				
Argentina	Merck Quimica Argentina S.A.I.C., a subsidiary of Merck KGaA, Darmstadt, Germany	Buenos Aires	100.00	
Brazil	Merck S.A. a subsidiary of Merck KGaA, Darmstadt, Germany	Rio de Janeiro	100.00	
Chile	Merck S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Santiago de Chile	100.00	
Ecuador	Merck C.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Quito	100.00	
Guatemala	Merck, S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Guatemala City	100.00	
Colombia	Merck S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Bogotá	100.00	
Mexico	Merck, S.A. de C.V., a subsidiary of Merck KGaA, Darmstadt, Germany	Mexico City	100.00	
Mexico	Millipore S.A. de C.V.	Mexico City	100.00	
Mexico	Serono de Mexico S.A. de C.V.	Mexico City	100.00	
Panama	Mesofarma Corporation	Panama City	100.00	
Peru	Merck Peruana S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Lima	100.00	
Uruguay	ARES Trading Uruguay S.A.	Montevideo	100.00	
Venezuela	Merck S.A., a subsidiary of Merck KGaA, Darmstadt, Germany	Caracas	100.00	
Venezuela	Representaciones MEPRO S.A.	Caracas	100.00	
China	Beijing Skywing Technology Co., Ltd.	Beijing	100.00	
China	Merck Chemicals (Shanghai) Co., Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Shanghai	100.00	
China	Merck Display Materials (Shanghai) Co., Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Shanghai	100.00	
China	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Hong Kong	100.00	
China	Merck Millipore Lab Equipment (Shanghai) Co., Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Shanghai	100.00	
China	Merck Pharmaceutical (HK) Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Hong Kong	100.00	
China	Merck Serono (Beijing) Pharmaceutical R&D Co., Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Beijing	100.00	
China	Merck Serono Co., Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Beijing	100.00	
China	Millipore (Shanghai) Trading Co., Ltd.	Shanghai	100.00	

→ *Other disclosures*

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
China	Millipore China Ltd.	Hong Kong	100.00	
China	Suzhou Taizhu Technology Development Co., Ltd.	Taicang	100.00	
India	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Mumbai	51.80	
India	Merck Specialities Pvt. Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Mumbai	100.00	
India	Millipore India Pvt. Ltd.	Bangalore	100.00	
Indonesia	P.T. Merck Tbk., a subsidiary of Merck KGaA, Darmstadt, Germany	Jakarta	86.65	
Israel	Inter-Lab Ltd.	Yavne	100.00	
Israel	InterPharm Industries Ltd.	Yavne	100.00	
Israel	InterPharm Laboratories Ltd.	Yavne	100.00	
Israel	Merck Serono Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Herzliya Pituach	100.00	
Malaysia	Merck Sdn Bhd, a subsidiary of Merck KGaA, Darmstadt, Germany	Petaling Jaya	100.00	
Malaysia	Millipore Asia Ltd., Malaysia Branch	Kuala Lumpur	100.00	
Pakistan	Merck (Pvt.) Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Karachi	75.00	26.00
Pakistan	Merck Pharmaceuticals (Pvt.) Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Karachi	75.00	
Pakistan	Merck Specialities (Pvt.) Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Karachi	100.00	
Philippines	Merck Inc., a subsidiary of Merck KGaA, Darmstadt, Germany	Makati City	100.00	
Singapore	Merck Pte. Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Singapore	100.00	
South Korea	Merck Advanced Technologies Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Pyungtaek-shi	100.00	
South Korea	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Seoul	100.00	
Taiwan	Merck Display Technologies Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Taipei	100.00	
Taiwan	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Taipei	100.00	
Thailand	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Bangkok	45.11	
United Arab Emirates	Merck Serono Middle East FZ-LLC, a subsidiary of Merck KGaA, Darmstadt, Germany	Dubai	100.00	
Vietnam	Merck Vietnam Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Ho Chi Minh City	100.00	
Rest of the World				
Japan	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Tokyo	100.00	15.89
Japan	Merck Serono Co., Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Tokyo	100.00	
Egypt	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Cairo	100.00	

→ *Other disclosures*

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
Mauritius	Millipore Mauritius Ltd.	Cyber City	100.00	
South Africa	Merck (Pty) Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Halfway House	100.00	
South Africa	Merck Pharmaceutical Manufacturing (Pty) Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Wadeville	100.00	
Tunisia	Merck Promotion SARL, a subsidiary of Merck KGaA, Darmstadt, Germany	Tunis	100.00	
Tunisia	Merck SARL, a subsidiary of Merck KGaA, Darmstadt, Germany	Tunis	100.00	
Australia	Merck Pty. Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Kilsyth	100.00	
Australia	Merck Serono Australia Pty. Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Sydney	100.00	
New Zealand	Merck Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Palmerston North	100.00	
II. Companies not consolidated due to secondary importance				
Germany				
Germany	AB Pensionsverwaltung GmbH	Zossen	100.00	100.00
Germany	Merck 12. Allgemeine Beteiligungs-GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00
Germany	Merck 13. Allgemeine Beteiligungs-GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	
Germany	Merck 14. Allgemeine Beteiligungs-GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	
Germany	Merck Patent GmbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	
Germany	Merck Wohnungs- und Grundstücksverwaltungsgesellschaft mbH, a subsidiary of Merck KGaA, Darmstadt, Germany	Darmstadt	100.00	100.00
Other European countries				
Switzerland	Asceneuron SA	Lausanne	80.00	
Switzerland	Calypso Biotech SA	Plan-les-Ouates	75.00	
Switzerland	Prexton Therapeutics SA	Plan-les-Ouates	55.00	
France	Gonnon S.A.S.	Lyon	100.00	
United Kingdom	Nature's Best Health Products Ltd.	Tunbridge Wells	100.00	
Netherlands	Merck Holding Netherlands B.V., a subsidiary of Merck KGaA, Darmstadt, Germany	Schiphol-Rijk	100.00	100.00
Netherlands	Peer+ B.V.	Eindhoven	72.73	72.73
Portugal	Laquifa Laboratorios S.A.	Algés	100.00	

→ *Other disclosures*

Country	Company	Registered office	Equity interest (%)	thereof Merck KGaA, Darmstadt, Germany (%)
North America				
USA	TocopheRx, Inc.	Groton	65.78	
Emerging Markets				
Dominican Republic	Merck Dominicana, S.R.L., a subsidiary of Merck KGaA, Darmstadt, Germany	Santo Domingo	100.00	
China	Merck Serono (Beijing) Pharmaceutical Distribution Co., Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Beijing	100.00	
Indonesia	P.T. Merck Specialities, a subsidiary of Merck KGaA, Darmstadt, Germany	Jakarta	100.00	
Rest of the World				
Morocco	Merck Maroc S.A.R.L., a subsidiary of Merck KGaA, Darmstadt, Germany	Casablanca	100.00	
South Africa	Serono South Africa Ltd.	Johannesburg	100.00	
Australia	Biochrom Australia Pty. Ltd.	Melbourne	100.00	
Australia	Merck Australia Pty. Ltd., a subsidiary of Merck KGaA, Darmstadt, Germany	Kilsyth	100.00	
III. Associates not included at equity due to secondary importance				
Other European countries				
Switzerland	Vaximm AG	Basel	24.66	
Emerging Markets				
Israel	Neviah Genomics Ltd.	Yavne	69.00	7.75
Israel	QLight Nanotech Ltd.	Jerusalem	47.73	

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements of the Group give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group.

Darmstadt, February 17, 2014


Karl-Ludwig Kley


Kai Beckmann


Stefan Oschmann


Bernd Reckmann


Matthias Zachert

Auditor's Report

We have audited the consolidated financial statements prepared by Merck Kommanditgesellschaft auf Aktien, Darmstadt, Germany, comprising the Consolidated Income Statement, the Consolidated Statement of Comprehensive Income, the Consolidated Balance Sheet, the Consolidated Cash Flow Statement, the Consolidated Statement of Changes in Net Equity, and the Notes to the Group accounts, together with the Group Management Report for the business year from January 1 to December 31, 2013. The preparation of the consolidated financial statements and the Group Management Report in accordance with IFRSs, as adopted by the EU, and the additional requirements of German commercial law pursuant to section 315a (1) HGB [Handelsgesetzbuch "German Commercial Code"] and supplementary provisions of the articles of association are the responsibility of the parent company's management. Our responsibility is to express an opinion on the consolidated financial statements and on the Group Management Report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with § 317 HGB [Handelsgesetzbuch "German Commercial Code"] and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the Group Management Report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the Group Management Report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and Group Management Report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRSs, as adopted by the EU, the additional requirements of German commercial law pursuant to section 315a (1) HGB and supplementary provisions of the articles of association and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The Group Management Report is consistent with the consolidated financial statements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Frankfurt/Main, February 18, 2014

KPMG AG
Wirtschaftsprüfungsgesellschaft

Original German version signed by

Karl Braun
Wirtschaftsprüfer

Manfred Jenal
Wirtschaftsprüfer

#04

More Information

Glossary

A /a

Affiliate → A company that is not included in the scope of consolidation due to its minor importance.

B /b

Biomarkers → The term refers both to substances in the body and cell properties. Biomarkers can help doctors to identify a patient's disease. Certain genes tend to play a role in the treatment of cancers, in terms of whether they are "normal" (wild type) or have undergone transformation (mutant). A predictive biomarker is a parameter or a status that can help to predict whether a patient's disease, e.g. cancer, will respond to a certain treatment.

Biosimilars → A biosimilar medicine is a biological medicine that is developed to be similar to an existing biological medicine (the 'reference medicine'). Biosimilars are not the same as generics, which have simpler chemical structures and are considered to be identical to their reference medicines. The active substance of a biosimilar and its reference medicine is essentially the same biological substance, though there may be minor differences due to their complex nature and production methods. Like the reference medicine, the biosimilar has a degree of natural variability.

Business free cash flow → This key performance indicator is equivalent to EBITDA pre one-time items less (1) investments in property, plant, equipment and software, (2) changes in inventories, as well as (3) changes in accounts receivable trade as reported in the balance sheet.

C /c

Cash flow → Equals cash receipts minus cash payments over a given period of time.

CHMP → Committee for Medicinal Products for Human Use: a scientific committee of the European Medicines Agency. It prepares the Agency's opinions and handles the authorization and risk assessment of medicinal products.

Commercial paper program → A commercial paper program provides the contractual framework for the issuance of commercial paper, which is a short-term debt instrument issued by a corporation.

Compliance → This term refers to compliance with laws and regulations as well as with voluntary codices that are internal to the Group. Compliance is an element of diligent corporate governance.

Corporate governance → This term covers compliance with laws and regulations; the application of recognized standards and recommendations; the development of and adherence to internal guidelines; as well as the creation and implementation of guideline and control structures.

D /d

DAX® → Deutscher Aktienindex (German stock index): Its value is based on the stock prices of the 30 largest German companies by trading volume and free float market capitalization.

Debt issuance program → A debt issuance program provides the contractual framework for the issuance of bonds. Thanks to the current terms and conditions, the program allows the company flexibility when issuing bonds.

→ *Glossary*

E /e

Earnings per share → Earnings per share are calculated as specified in IAS 33 by dividing the Group profit by the weighted average number of shares.

EBIT → Earnings before interest and taxes on income. Equals the operating result.

EBITDA → Earnings before interest, taxes, depreciation and amortization: depreciation and amortization are added back to EBIT.

EBITDA pre → EBITDA before one-time items.

EGFR → Epidermal Growth Factor Receptor: It is upregulated in various tumor types and/or present in mutated form, resulting in uncontrolled growth and replication of tumor cells. Novel cancer therapies are aimed at blocking EGFR's oncogenic signal and hence stopping tumor growth.

EMA → European Medicines Agency: an official body of the European Union, headquartered in London. It is responsible for evaluating and monitoring medicines and plays a key role in the marketing authorization of medicinal products.

Equity method → The basic idea behind the equity method is to present the carrying amount of the equity investment in the investor's balance sheet so that it mirrors the development of the proportional share of equity in the investment.

F /f

FDA → Food and Drug Administration: U.S. government agency responsible for protecting and advancing public health, especially as concerns food and drugs.

Financial covenants → Financial figures stipulated in loan contracts to which the company must adhere during the duration of the loan.

First, second and third line therapy → First-line therapy is the first therapy that patients receive after having been diagnosed. If they do not respond or cannot tolerate first-line therapy, second-line, or in a further step, third-line therapy follows.

Free cash flow → Sum of the net cash flow from operating activities minus investments in intangible assets, property, plant and equipment, acquisitions as well as investments in other financial assets, plus proceeds from the disposal of assets and changes in securities.

G /g

GDP → Gross domestic product: The total value of all goods (products and services) intended for final consumption that are produced within a country's borders in a given year.

GHS → Globally Harmonized System of Classification and Labelling of Chemicals. An international standard system to classify chemicals, including labels and safety data sheets.

Global Grade → The Group is working with the Global Grading System developed by Towers Watson, a market-focused method to evaluate company positions.

→ *Glossary*

Goodwill → Goodwill arises when a company acquires another company and primarily represents the difference between the fair value of the acquired net assets and the purchase price paid.

GPHF → Global Pharma Health Fund e.V. is a charitable organization funded by the Group. The organization's goal is to promote health care within the scope of development assistance, especially with respect to the fight against counterfeit medicines through the use of the GPHF-Minilab™.

GPHF-Minilab™ → With the GPHF-Minilab™, the GPHF offers a unique mobile compact laboratory that is capable of testing the quality of medicines very quickly.

Greenhouse Gas Protocol → Most widely used accounting and reporting system for greenhouse gas emissions.

H /h

Hedging → Protection against or limitation of certain clearly identified risks that might result from occurrences such as changes in foreign exchange rates or share prices. Fair value hedge: This primarily involves protecting against potential market value fluctuations of those assets and liabilities already recognized in the balance sheet. The primary purpose of a cash flow hedge is to protect against uncertain cash flows that especially result from future transactions.

I /i

ICCA → International Council of Chemical Associations.

IFRS → International Financial Reporting Standards (until 2001 known as International Accounting Standards, IAS) are the standards that publicly traded companies must apply if their headquarters are domiciled in the European Union.

IMF → The International Monetary Fund, with headquarters in Washington, D.C., is a United Nations organization.

Interest rate swap → An interest rate swap is an agreement between two contractual parties to exchange various interest payments. Thus, a company can transform a variable interest item into a fixed interest item and vice-versa.

K /k

KRAS → A biomarker that can show whether a patient with metastatic colorectal carcinoma is likely to respond to EGFR antibody therapy. This is done by testing the status of the KRAS gene in the tumor to see if it is normal (wild type) or abnormal (mutant). The KRAS acronym stands for Kirsten Rat Sarcoma.

L /l

LED → A light-emitting diode (LED) is an electronic semiconductor device. When an electric current passes through it in the flow direction, it emits visible light, infrared radiation (IR diode) or ultraviolet radiation (UV diode). The wavelength of this depends on the semiconductor material used and the doping level.

Liquid Crystals (LC) → These specialty chemicals are used in LC displays (LCD), for example, in flat-panel televisions, notebooks, mobile telephones, etc.

LTIR → Lost time injury rate: indicator for workplace safety. The number of workplace accidents with one or more days of lost time per million hours worked.

→ *Glossary*

Lupus erythematosus (LE) → An autoimmune disease linked to inflammatory rheumatic disease and classified as a collagen disease. There are two main types: lupus of the skin, and systemic lupus erythematosus (SLE). It may affect other organ systems apart from the skin and joints, e.g. the kidneys in lupus nephritis (LN).

M /m

Monoclonal antibodies → Highly specialized targeted antibodies synthesized using biotechnological methods. What makes them special is their ability to activate the body's natural mechanisms to fight disease. Monoclonal antibodies have mainly been used for cancer treatment and to suppress adverse immune responses.

MUC1 → Also known as PEM (polymorphic epithelial mucin), MUC1 is a glycoprotein group mucin embedded in cell membranes and occurring in all human organs. The MUC1 mucin is an established tumor marker. In oncology, this tumor marker is the starting point for several new cancer therapies.

Multi-currency credit facility → A contract between a company and a bank (or several banks) under which the bank gives the company the possibility to access a predefined amount of money at certain conditions. Depending on the agreement, payment can be made in different currencies.

N /n

Net current assets → Current assets less current liabilities.

Net present value → This parameter is based on the discounted cash flow method and is calculated as the sum of the discounted free cash flows over the projection period of a project. Consistent with the definition of the free cash flow, the weighted average cost of capital is used as the discount rate.

O /o

OLED → Organic light-emitting diodes. New technology for displays and lighting used, for example, in mobile telephones, MP3 players, and since recently also in televisions and lamps.

Organic growth → Organic growth is the part of a company's growth that is not derived from acquisitions or currency effects.

P /p

Progression-free survival → In oncology, the amount of time between a patient's enrollment in a clinical trial and disease progression or the patient's death.

Provisions/reserves → Provisions are set aside for liabilities whose amount or maturity are uncertain. Reserves, on the other hand, are part of a company's equity.

PS-VA → Polymer-stabilized vertical alignment: A polymer layer pre-aligns the molecules inside the display in a certain direction. In the black state, the liquid crystals are not exactly vertical, but slightly tilted: This allows the liquid crystals to switch more quickly. The light transmittance of the display is significantly higher, thus reducing the backlighting, one of the most costly components to produce.

Purchase price allocation → The purchase price allocation allows a company's acquisition costs (purchase price) to be assigned to the tangible and intangible assets and liabilities that were acquired with it.

→ *Glossary*

R /r

Randomized study → In medical research, randomization refers to the random assignment of subjects to treatment groups. The goal is to prevent the investigator from influencing the trial and to ensure that known and unknown influencing factors are distributed evenly across all groups.

REACH → REACH stands for the Registration, Evaluation, Authorization and Restriction of Chemicals. This is an EU regulation that entered into force in mid-2007.

Recurrent → In oncology, recurrent cancer means that the disease returns after it seems to have completely disappeared. This is often caused by the incomplete removal of the tumor.

Research spending ratio → Research spending as a proportion of the sales of the company or division.

S /s

Schistosomiasis → Schistosomiasis is a parasitic disease that is spread in warm lakes and ponds by snails that serve as intermediate hosts.

T /t

Tax rate → The tax rate indicates the percentage rate by which Group profit before tax is to be multiplied in order to calculate the theoretical tax expense.

Tax ratio → The tax ratio indicates the ratio of total taxes to profit before tax.

Total revenues → Sum of sales as well as royalty, license and commission income. Royalties are earned primarily through patents held by the Biopharmaceuticals division.

V /v

VCI → Verband der Chemischen Industrie (German Chemical Industry Association) represents the economic-political interests of 1,600 German chemical companies.

Financial calendar for 2014

March

Thursday, 3/6/2014	Annual Press Conference

May

Friday, 5/9/2014	Annual General Meeting
Thursday, 5/15/2014	Report on the first quarter

August

Thursday, 8/7/2014	Report on the second quarter

November

Thursday, 11/13/2014	Report on the third quarter

Awards and recognitions

Intersolar Award 2013

for Innovative Photovoltaic Production Technologies in recognition of isishape® technology

Excellent Supplier Award from TPK Touch Solutions Inc.

to honor performance in the areas of quality, cost, delivery, and technical services for R&D

Solar Industry Award 2013 (PV Materials Enabling Award category)

presented by "Solar International" magazine in recognition of the outstanding performance of isishape® SolarEtch® etching pastes

Europe Product Differentiation Excellence Award 2013 conferred by Frost & Sullivan

for the cutting-edge easypod® and cool.click®2 drug delivery devices for the treatment of endogenous growth hormone deficiency

Stevie Awards (the American Business Awards competition)

in the "New Product of the Year" category presented for the Life Science Tools division's Muse™ Cell Analyzer as well as its Direct Detect® quantification system

Top 10 in the "Good Company Ranking" published by Kirchhoff Consult AG

for excellence in human resources management, social commitment, and environmental management, as well as financial performance and transparency

Chairman's Award presented by the Associated Industries of Massachusetts

to honor the Life Science Tools division's excellence in international trade

BARC Best Practice Award conferred by the Business Application Research Center

in recognition of exemplary methods and processes for implementing and improving universal databases and information services

Quality Seal from Absolventa GmbH's "Initiative for career-promoting & fair trainee programs"

in recognition of the Group's high-caliber talent development programs

PR Report Award 2013 ("Change Communication" category) for the cogent internal and external communications strategy

for the "Fit for 2018" transformation and growth program

Prestigious Supplier Award presented by "Paint & Pintura" magazine

to Merck KGaA, Darmstadt, Germany, in the "Best Supplier of Pearlescent Pigments" category

Golden Merchant Award (Outstanding Foreign Firm category) presented by the ROC General Chamber of Commerce (ROCCOC)

for the Group's engagement in Taiwan

Business Development 2009 – 2013

This overview may include historically adjusted values in order to ensure comparability with 2013.

€ million	
Earnings performance	
Total revenues	
Sales	
Operating result (EBIT)	
Margin (in % of sales)	
EBITDA	
Margin (in % of sales)	
One-time items	
EBITDA pre one-time items	
Margin (in % of sales)	
Profit before tax	
Profit after tax	
Earnings per share (in €)	
Asset position	
Total assets	
Non-current assets	
– of which intangible assets (incl. goodwill)	
– of which property, plant and equipment	
Current assets	
– of which cash and cash equivalents	
– of which trade accounts receivable	
– of which inventories	
Financial liabilities	
– of which current	
– of which non-current	
Equity	
Financial position	
Investments in intangible fixed assets [1]	
Investments in property, plant and equipment [1]	
Business free cash flow	
Net financial debt	
Other key figures	
Equity ratio	
Research and development	
Dividend per share in €	
Employees (number as of December 31)	

[1] According to the cash flow statement

2009	2010	2011	2012	2013	Change in %
7,747	9,291	10,276	11,173	11,095	-0.7
7,378	8,929	9,906	10,741	10,700	-0.4
621	1,113	1,132	964	1,611	67.2
8.4	12.5	11.4	9.0	15.1	
1,625	2,457	2,731	2,360	3,069	30.0
22.0	27.5	27.6	22.0	28.7	
–28	–88	7	–605	-184	-69.6
1,653	2,545	2,724	2,965	3,253	9.7
22.4	28.5	27.5	27.6	30.4	
486	861	839	709	1,389	95.9
377	642	618	579	1,209	108.8
1.68	2.91	2.79	2.61	5.53	111.9
16,713	22,388	22,122	21,643	20,819	-3.8
11,181	16,724	15,723	15,017	13,434	-10.5
7,598	12,484	11,764	10,945	9,867	-9.8
2,608	3,241	3,113	2,954	2,647	-10.4
5,532	5,664	6,399	6,626	7,385	11.4
541	944	938	730	981	34.4
1,789	2,296	2,328	2,115	2,021	-4.4
1,368	1,674	1,691	1,534	1,474	-3.9
2,307	5,484	5,539	4,454	3,698	-17.0
705	356	1,394	1,091	440	-59.6
1,602	5,127	4,145	3,362	3,257	-3.1
9,514	10,372	10,494	10,415	11,069	6.3
97	104	80	144	110	-24.0
467	396	366	329	407	23.7
1,035	1,275	2,262	2,969	2,960	-0.3
263	4,484	3,484	1,926	307	-84.1
56.9	46.3	47.4	48.1	53.2	
1,345	1,397	1,514	1,511	1,504	-0.5
1.00	1.25	1.50	1.70	1.90	11.8
33,062	40,562	40,676	38,847	38,154	-1.8

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More information about the Group can be found on the Web at *www.emdgroup.com*.

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