CREATING
the exceptional

ANNUAL REPORT 2016

EVONIK
POWER TO CREATE

Key figures for the Evonik Group

Key figures

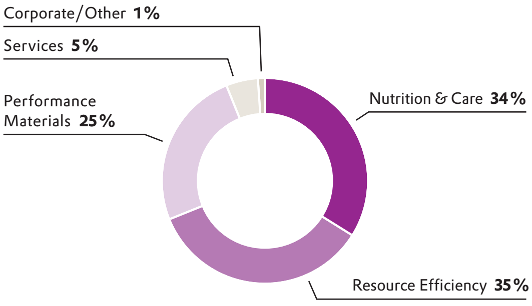
in € million	2012	2013	2014	2015	2016
Sales	13,365	12,708	12,917	13,507	12,732
Adjusted EBITDA [a]	2,467	1,995	1,882	2,465	2,165
Adjusted EBITDA margin in %	18.5	15.7	14.6	18.2	17.0
Adjusted EBIT [b]	1,887	1,404	1,256	1,752	1,448
ROCE [c] in %	20.4	15.1	12.5	16.6	14.0
Net income	1,165	2,054	568	991	844
Adjusted net income	1,076	806	782	1,128	930
Earnings per share in €	2.50	4.41	1.22	2.13	1.81
Adjusted earnings per share in €	2.31	1.73	1.68	2.42	1.99
Total assets as of December 31	17,166	15,883	15,685	17,005	19,645
Equity ratio as of December 31 in %	31.9	43.0	41.6	44.6	39.5
Cash flow from operating activities	1,420	1,055	1,066	1,971	1,758
Free cash flow [d]	490	–49	–60	1,052	810
Capital expenditures [e]	960	1,140	1,123	877	960
Depreciation and amortization [e]	580	585	606	700	707
Net financial debt/assets as of December 31	–1,163	571	400	1,098	1,111
No. of employees as of December 31	33,298	33,650	33,412	33,576	34,351

Figures for 2012 and 2013 contain the former Real Estate segment as a discontinued operation.

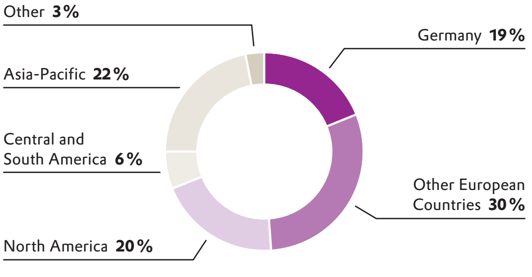
[a] Earnings before financial result, taxes, depreciation and amortization, after adjustments.
[b] Earnings before financial result and taxes, after adjustments.
[c] Return on capital employed.
[d] Cash flow from operating activities, continuing operations, less cash outflows for capital expenditures on intangible assets, property, plant and equipment.
[e] Intangible assets, property, plant and equipment.

Due to rounding, some figures in this report may not add up exactly to the totals stated.

Sales by segment



Sales by region [a]



[a] By location of customer.

Nutrition & Care

The Nutrition & Care segment produces specialty chemicals, principally for use in consumer goods for daily needs, and in animal nutrition and healthcare products.

- Growth drivers: rising prosperity in emerging markets and the aging population in industrialized countries.
- Leading market positions in superabsorbents (# 1–2), DL-methionine (# 1), pharmaceutical polymers (# 2).

Key figures

in € million	2016	2015
External sales	4,316	4,924
Adjusted EBITDA	1,006	1,435
Adjusted EBITDA margin in %	23.3	29.1
Adjusted EBIT	795	1,214
ROCE in %	26.8	41.5
No. of employees	7,594	7,165

Resource Efficiency

The Resource Efficiency segment supplies high-performance materials for environment-friendly and energy-efficient systems to the automotive, paints, coatings, adhesives, construction industries and many other sectors.

- Growth drivers: trend to renewable energies and environment-friendly solutions.
- Leading market positions in silica (# 1), isophorone chemistry (# 1), oil additives (# 1).

Key figures

in € million	2016	2015
External sales	4,473	4,279
Adjusted EBITDA	977	896
Adjusted EBITDA margin in %	21.8	20.9
Adjusted EBIT	751	675
ROCE in %	27.1	24.8
No. of employees	8,928	8,662

Performance Materials

The heart of the Performance Materials segment is the production of polymer materials and intermediates, mainly for the rubber, plastics and agriculture industries.

- Growth drivers: intelligent design of chemicals business.
- Leading market positions in butene-1 (# 1), alkoxides (# 1), methacrylate polymers (# 1-2).

Key figures

in € million	2016	2015
External sales	3,245	3,435
Adjusted EBITDA	371	309
Adjusted EBITDA margin in %	11.4	9.0
Adjusted EBIT	234	174
ROCE in %	18.3	11.9
No. of employees	4,393	4,380

THE ESSENCE OF A YEAR.

CONTENTS

Through its acquisition of the specialty additives business of Air Products and the silica business of J. M. Huber in 2016, Evonik further strengthened its position in attractive markets and thus took important steps to ensure the Group's continued global growth in the future.

We put together our own team of experts for the implementation of our digitalization strategy and founded a separate company that operates like a startup. Our aim is to use new business models to open up a market that is worth billions. To achieve this goal, we need know-how and, above all, creativity—an area of competence that, more than any other, is synonymous with Evonik's success. The proofs of our creativity include innovative products such as probiotics for farm animals, powders for 3D printers, and PLEXIGLAS® panels for significantly larger airplane windows.

"Creating the exceptional" is the motto of the following pages, where we'd like to present to you some of our ideas that combine disparate themes and connect well thought-out solutions. These solutions will have a significant impact on our work and on the global markets in the future. As a result, this backward look is also a look at a future that harbors a wealth of opportunities.

KLAUS ENGEL

……………………………………..
Chairman of the Executive Board

Ladies and gentlemen,

Our company can look back on a successful business year 2016—which, however, was also characterized by difficult conditions and major political events. The global economy grew by a mere 2.3 percent in 2016. This was below our economists' average expectations at the beginning of the year.

This weak growth was mainly due to the rather sluggish development of the North American economy. Growth was further impacted by the economic slowdown in the emerging markets. The economy of Latin America remained in a recession that was characterized by great regional differences.

Although the expansive monetary policy of the European Central Bank caused private consumption, in particular, to improve somewhat, there are still unanswered questions about the risks in the banking system and the consequences of the UK's decision to leave the EU.

In this volatile and challenging environment, Evonik has continued to pursue its successful course. The adjusted EBITDA was extremely good in 2015 and was expected to be between €2.0 billion and €2.2 billion in 2016. We did in fact achieve this goal, with EBITDA amounting to €2.165 billion, which was near the top of the forecast range.

However, our sales of €12.7 billion are considerably below the prior year's high level. This result is mainly due to lower raw material costs, which caused the prices we can charge to decline as well. By contrast, in 2016 our volume sales increased once again by comparison with the previous year.

We expect the conditions for the global economy to improve slightly in fiscal 2017, leading to global growth of 2.6 percent. At the same time, difficult political and geopolitical conditions still remain. This applies especially to the European Union, in which several key elections will be held in 2017.

At Evonik, we continue to look to the future with confidence. Because our investments will continue to pay off this year, we expect our adjusted EBITDA to surpass that of 2016. In our outlook, we assume the result will lie between €2.2 billion and €2.4 billion.

Evonik will celebrate its tenth anniversary in September 2017. In 2007 Werner Müller unveiled our carefully covered corporate headquarters in Essen. The new name "Evonik Industries" was clearly visible on the building's roof.

Since then, we have been systematically enhancing our company, with creativity and an eye on the future. We weathered the global financial and economic crisis safely, launched Evonik on the stock market successfully, divested our real-estate business and our energy unit, and consistently focused the company's operations on chemicals.

At the same time, we made our enterprise more international step by step and commissioned state-of-the-art production facilities in locations including Singapore, China, North America, and Brazil. Through our acquisition of the specialty additives business of Air Products we took a big and important step in the strategic development of our portfolio. We are substantially expanding this profitable business for Evonik in America and Asia and thus becoming one of the world's leading suppliers of specialty additives. These business activities and the new employees are being rapidly integrated into our fast-growing Resource Efficiency and Nutrition & Care segments. Our expectations regarding the future development of specialty additives are correspondingly high.

We are similarly optimistic about our worldwide silica business, which we can strengthen through another acquisition. Our acquisition of the silica unit of the family-run company J. M. Huber in the USA is enabling us to expand our presence in North America and Asia in this business as well—especially in the consumer-related sector. We expect to close this transaction successfully in the course of this year after receiving approval from the antitrust authorities.

Our silica business is also getting a boost from the construction of a new facility in the southern USA. Production at the facility is scheduled to begin in 2018. We have also invested in the silica sector in Brazil, where we put our new silica plant into operation in Americana last summer.

In order to further safeguard our growth opportunities in the methionine business, last October we began construction of a new production complex for methionine in Singapore, because the demand for animal feed additives is steadily increasing, especially in Asia. At our European locations as well, we have continued to prepare ourselves for the future. Last fall we held the ground-breaking ceremony for our new polyamide 12 powder facility in Marl, which will expand our production capacity for polyamide 12 powder by 50 percent. In this segment, we see especially strong growth potential in 3D printing.

In Weiterstadt, we are building a new stretching and polishing facility for PLEXIGLAS®, sold under the ACRYLITE® trademark in the Americas, which is scheduled to go into operation in early 2018. This plant will enable us to make substantially bigger and more uniform sheets of PLEXIGLAS® for the aviation industry, for example.

At the same time, we are also expanding our membrane production operations in Schörfling, Austria. The membrane business is an outstanding example of our use of innovative products to enter new markets. That's because innovation, closeness to our customers, and creativity are crucial driv-ers of Evonik's profitable growth. We want to invest a total of €4 billion in innovations by 2025. During the last fiscal year, we spent no less than €438 million on research & development. This investment is paying off, as it enabled us to submit around 230 new patents in 2016. We achieved about ten percent of our total sales with products that are less than five years old.

The "fourth Industrial Revolution" will be accompanied by pioneering innovations, and the associated digital transition is also affecting the chemical industry. For us, it is not only bringing technological progress but also opening up considerable potential for new business models, new supply-chain concepts, and new sales channels. Accordingly, we have adapted our organization in a timely and interdisciplinary process in order to identify and exploit at an early stage all the opportunities that the digital transition offers to Evonik.

But in spite of all this enthusiasm for innovation, outside of our daily business activities we have held fast to something that is very dear to us—our social commitment. For example, as we celebrate the tenth year of our existence, the Evonik Foundation will further intensify its diverse activities as a promoter of education, science, culture, and sports.

We will continue to focus in particular on the education and training of refugees and underprivileged young people from Germany.

Sustainable success in business operations and socially beneficial activities can only be achieved over the long term if a company has employees who are highly qualified, committed, and open to the world. We have them at Evonik—and that makes me very optimistic about our company's present and its future.

THE EXECUTIVE BOARD

From left:

RALPH SVEN KAUFMANN
Chief Operating Officer

CHRISTIAN KULLMANN
Deputy Chairman of the Executive Board

UTE WOLF
Chief Financial Officer

KLAUS ENGEL
Chairman of the Executive Board

THOMAS WESSEL
Chief Human Resources Officer

Connecting with the Future: Evonik Acquires Businesses

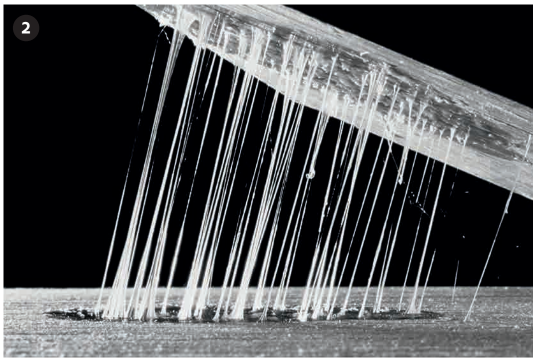
EVONIK IS STRATEGICALLY EXPANDING ITS BUSINESS OPERATIONS IN IMPORTANT GROWTH MARKETS WITH TWO TRAILBLAZING ACQUISITIONS IN NORTH AMERICA. THE GROUP IS THUS EXPANDING ITS INTERNATIONAL SCOPE AND PUTTING ITS BUSINESS ACTIVITIES ON A BROADER FOUNDATION.

At Evonik, the year 2016 was characterized by external growth. The Group made a major acquisition in May, when it bought the specialty additives business of the US company Air Products. At a cost of about US$3.8 billion, Evonik is taking over Air Products' specialty additives business, which is distinguished by its steady growth and extremely attractive profit margins. This acquisition makes Evonik one of the leading global suppliers of specialty additives, not only in Europe but also in Asia and the Americas. Specialty additives are used in industrial cleaners, adhesives, and car paint, among other applications.

Evonik, whose headquarters are in Essen, also announced another acquisition at the end of 2016. For about US$630 million, it is taking over the silica business of the family-owned US company J. M. Huber. Both of these acquisitions complement Evonik's existing portfolio perfectly. Both businesses have EBITDA margins of more than 20 percent, are expanding Evonik's presence in important growth markets, and are enhancing the Group's innovative strength. "These deals are giving a big boost to the future development of our growth segments Nutrition & Care and Resource Efficiency," says Thomas Hermann, the Head of Corporate Strategy.

His team is constantly on the lookout for possible acquisition candidates in the global markets. A key criterion in the search is the candidate's compatibility with Evonik's strategy. Appealing regions, powerful innovation capability, and a culture that matches the Group's creative self-image are additional requirements for capturing the attention of Hermann's team. "A company that we buy has to fit in perfectly with Evonik's growth strategy," says Hermann. This growth strategy rests on three pillars: innovations, organic growth through investments, and external growth through acquisitions.

For example, in the coatings and adhesives market, Evonik is a leading supplier of crosslinkers for coatings. This market is growing by leaps and bounds. Evonik noted this trend and commissioned a plant for producing isophorone and isophorone diamine in Asia in mid-2014. The company invested over €100 million in order to be able to produce an additional 50,000 tons of these chemicals annually. The business is running well. In 2015 there was a significant increase in crosslinker sales, and this trend continued in 2016. Thanks to the acquisition of Air Products' specialty additives business, the two teams can



1 Specialty additives are used in car paints, among other applications.
2 The market for adhesives and crosslinkers is also important for Evonik.
3 With silicas for toothpaste, Evonik is expanding its business with applications in the area of consumer goods.

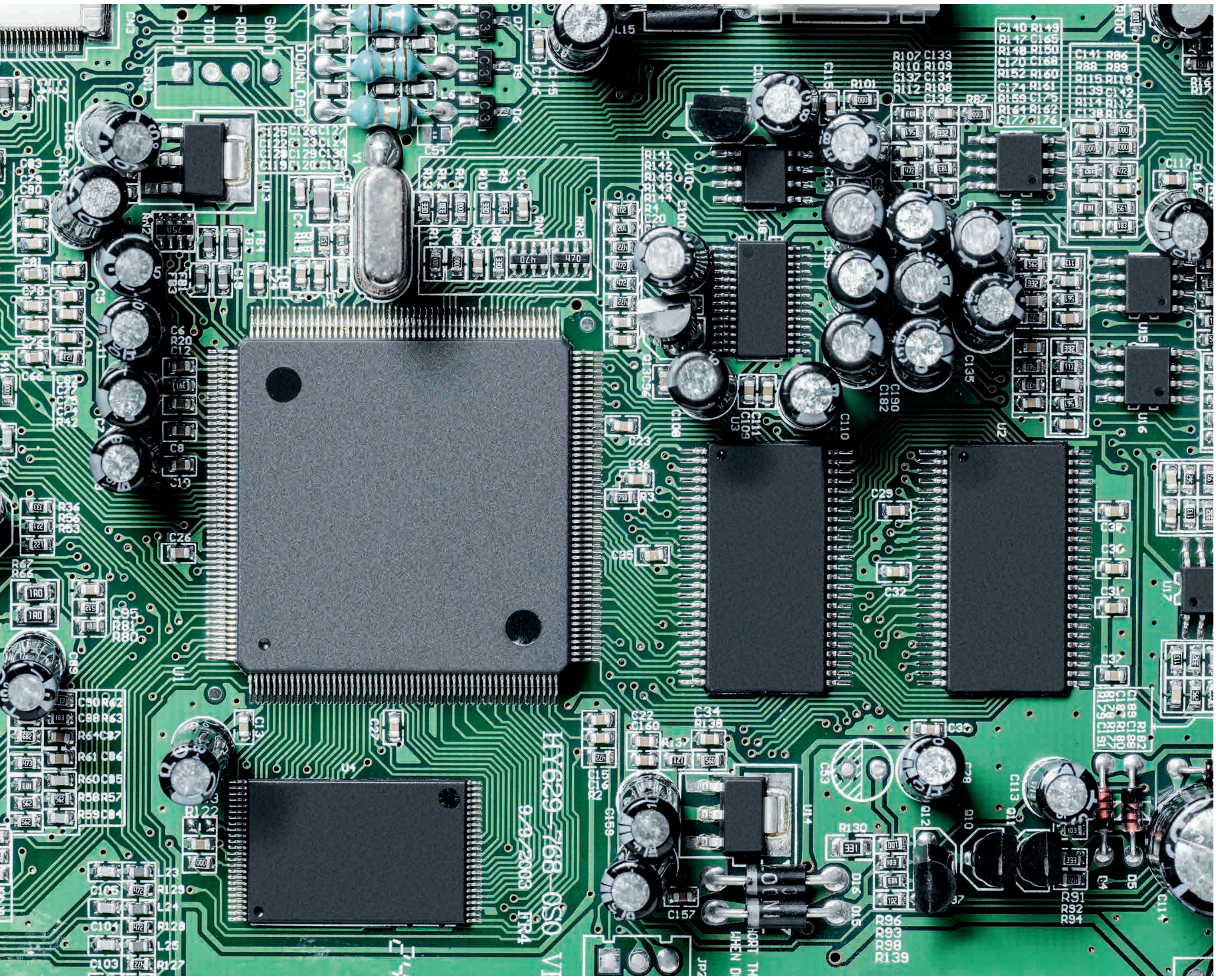
now work together to exploit synergies and analyze further growth opportunities. The Americans are bringing additional know-how into these business operations. Thanks to their formulations, they are the global leaders in the epoxy hardener industry.

Another example is the global silica business. For more than five years, Evonik has systematically implemented a targeted investment program in order to expand its capacities, especially regarding precipitated silica for fuel-efficient and environmentally friendly low rolling-resistance tires. Shortly before Christmas, the Executive Board and the management laid the foundation stone for a new major production facility in southeastern USA. A few months before that, a new facility had been commissioned in Brazil. Since 2010, Evonik has expanded its production capacity by more than 40 percent for precipitated silica alone. The key driver of this expansion is the growing demand for low rolling-resistance tires. Through its planned acquisition of J. M. Huber's silica business, Evonik now aims to expand its business with applications in the area of consumer goods. J. M. Huber's silica business is one of the leading suppliers of silicas for toothpaste.

The acquisition of Air Products' specialty additives business and J. M. Huber's silica business is expected to increase Evonik's sales by more than €1 billion. The conclusion of Evonik's acquisition of the Air Products business at the end of 2016 marked the beginning of the integration process. In fiscal 2017, this business is expected to bring in about €250 million in earnings. The acquisition of J. M. Huber should be concluded in the course of this year. The best assurance that the integration of diverse business activities and companies into an industrial group can be quick and successful is the long corporate history of Evonik itself.

Connecting with the Future: Digitalization at Evonik

EVONIK IS TAKING ADVANTAGE OF THE OPPORTUNITIES OFFERED BY DIGITALIZATION. AN INTERNATIONAL AND INTERDISCIPLINARY TEAM IS ADDRESSING THIS THEME VIA A SEPARATE COMPANY ON BEHALF OF EVONIK—AND DEVELOPING BUSINESS MODELS FOR THE FUTURE.



What opportunities do e-commerce platforms offer to a specialty chemicals company? What market insights and opportunities are opened up by easy-to-use sensors that end customers can use to collect measuring data themselves? How can we further promote the networking of supply chains in the chemical industry? How do modern information and communication technologies influence daily work processes?

Digitalization is changing business, politics, and society. The chemical industry and its business environment are also feeling this impact. From Evonik's perspective, digitalization is not only ushering in new technologies but also smoothing the way for new business models as well as new opportunities for cooperation in the areas of production and sales. "Digitalization is a growth driver for our company. Our goal is to open up a market that is worth billions," says Henrik Hahn, Evonik's Chief Digital Officer.

Evonik regards itself as a pioneer of digitalization in the chemical industry. At the beginning of 2016 it put together its own team of specialists who will forge ahead with this theme. The approximately 20 members of this team are developing digital concepts and solutions and putting them into practice. In their work they apply their broad range of international experience, vast network, and mix of professional know-how from disciplines such as chemistry, business management, engineering, social sciences, and media sciences. "Each one of us contributes something different to our work. As a result, our interaction generates a creative mix that makes new solutions possible—outside the routine processes that have established themselves in the company," says Hahn.

Evonik's digitalization strategy rests on five pillars (see box) and has a holistic approach. The interplay of all these aspects is crucial for successfully preparing the company to face the challenges and opportunities of the future.

By establishing Evonik Digital GmbH in Essen at the beginning of 2016, Evonik created a formal structure in order to systematically promote digitalization. "Our team works along the lines of a startup. We're focused and agile, and we have a lot of freedom," Hahn explains. The new subsidiary will present the initial concrete results of its work in the course of 2017.

1 Digitalization provides the industry with valuable datasets and opens up completely new business opportunities.
2 Glass fiber cables enable the fast transmission of huge volumes of data.
3 High-powered computers play an important role in the storage and processing of data.
4 Work processes can be more effectively controlled by means of the processed data.

Evonik's digitalization strategy in detail

CLOSE CONTACT WITH CUSTOMERS: Evonik is forging ahead with the development of customer-specific digital services with a high degree of user-friendliness. This development is based on the sharing of information across business units and professional groups, and thus on close contact with the company's target groups. Only people who are familiar with the target groups' questions and problems can develop the appropriate solutions.

SPEED AND AGILITY: Speed and flexibility are the keys to implementing digital solutions, services, and business models. As a result, new ideas can be tested quickly with the help of prototypes. That's why Evonik can respond promptly to new market and customer demands.

A NETWORK OF PARTNERS: Bringing in external know-how in targeted ways helps the team members to gain different perspectives on its own work and develop new digital approaches. In order to receive these impulses from outside, Evonik is in close contact with startups and specialized partners. It is systematically expanding this network.

BUILDING SKILLS: By expanding and consolidating its digital skills, Evonik is creating the foundation for the sound evaluation of digital technologies and services and for the development of digital pilot projects.

DIGITAL CULTURE: Evonik promotes the development of a work culture that supports the company as it moves into the digital age. This culture is characterized by an attitude that creates space for quick and pragmatic solutions, presses ahead with implementation, builds on the knowledge of many people, and regards errors as an incentive to further development.

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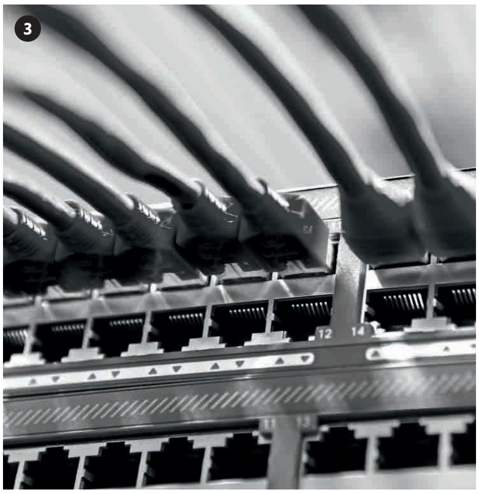

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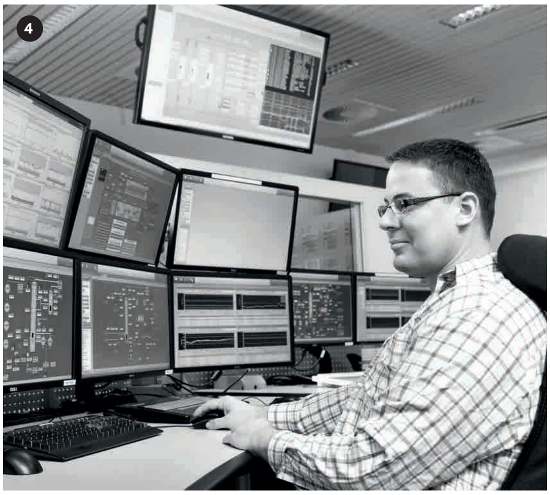
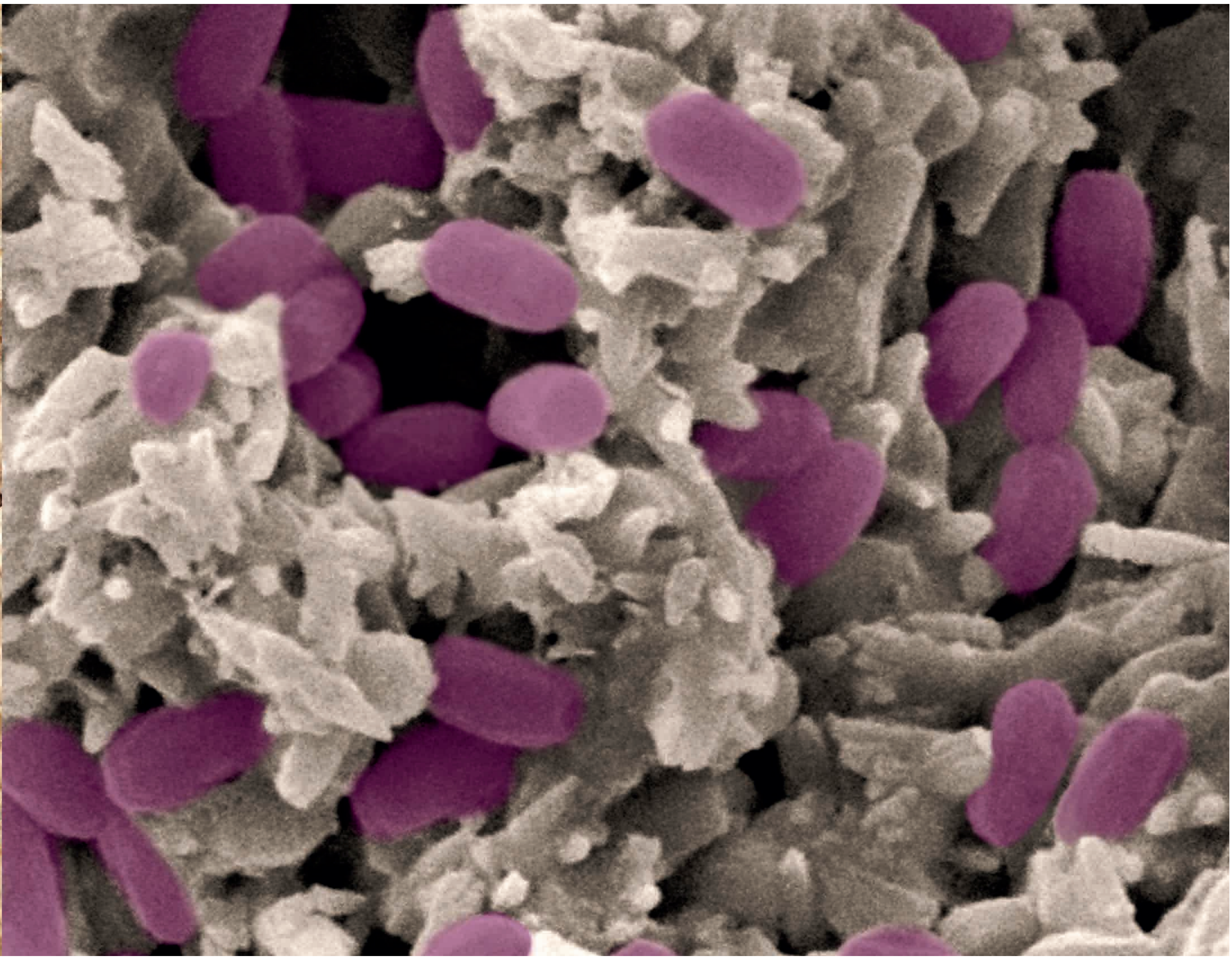


Connecting with the Future: Good Bacteria in Animal Feed

THE WORLD HEALTH ORGANIZATION HIGHLIGHTS A CONNECTION BETWEEN THE USE OF ANTIBIOTICS IN LIVESTOCK BREEDING AND THE INCIDENCE OF DANGEROUS MULTIRESISTANT BACTERIA IN HUMAN BEINGS. PROBIOTICS FROM EVONIK SHOULD HELP TO REDUCE THE USE OF ANTIBIOTIC GROWTH PROMOTERS IN AGRICULTURE.



The interior of a poultry pen is a scene of turbulence created by thousands of broiler chickens milling about. Nonetheless, when a chicken farm supervisor makes his rounds, he can see very quickly whether or not the animals are healthy. If he observes unusual behavior or discovers any sick animals, he has to call in a veterinarian. In cases of bacterial infections, antibiotics are used to prevent the infection from spreading.

Some illnesses develop without any conspicuous symptoms and are therefore easily overlooked. One example is the widespread "subclinical necrotic enteritis," which is caused by *Clostridium perfringens* bacteria. If these bacteria overrun a chicken's digestive system, they damage its intestinal wall. The sick chicken then continues to feed but stops growing normally—and infects other animals. This carries considerable risks for the breeder, because chickens' feed utilization is one of the most important factors in the profitability of his business. Experts estimate that this illness does several billion dollars' worth of damage to worldwide poultry breeding every year.

As a result, from the 1950s onward poultry breeders customarily put antibiotics into their poultry feed to act as "growth promoters" and protect their animals from illnesses such as subclinical necrotic enteritis. Today scientists say that this practice is partly responsible for the increased incidence of multiresistant bacteria in human beings. The infections caused by these bacteria are almost impossible to treat with existing antibiotics. Consequently, the use of antibiotic growth promoters has been banned in the European Union since 2006. As part of its global action plan against antibiotic resistance, the World Health Organization is calling for a cautious use of antibiotics for animals. The retail trade and the hospitality industry are also reacting. In the USA, many supermarkets and restaurant chains are now advertising the fact that they offer meat from animals that have not been given any antibiotics.

However, this does not prevent the proliferation of undetected illnesses in poultry pens, with all of their dire consequences. One way to prevent such illnesses is to use bacteria called probiotics, which stabilize the intestinal flora. Probiotics are living microorganisms that are fed to livestock such as chickens as a feed additive and form colonies in the animals' intestines.

According to various estimates, about $1 billion was spent globally on probiotics for animal feed in 2016. Experts predict that sales of probiotics will grow between six and ten percent annually. Evonik aims to play a leading role in this market in the future. "Thanks to our experience with amino acids, we are thoroughly familiar with the nutritional needs of farm animals. The animal feed industry appreciates us as an expert partner," says Christoph Kobler, who is responsible for sustainable healthy nutrition at Evonik's Animal Nutrition Business Line. "We want to offer our customers excellent products and to support them with tailor-made services and our comprehensive knowledge." Thanks to increasing prosperity, more and more people all over the world can afford to include meat in their diets. In 2015 alone, about 320 million tons of meat were produced globally, with about 115 million tons coming from poultry. And the demand is growing.

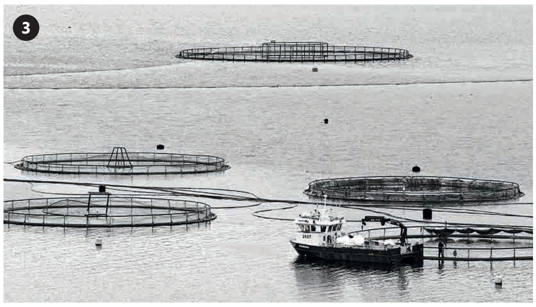
In the summer of 2016, Evonik acquired the probiotics business of the Spanish company NOREL, which, among other things, manufactures products for chicken and piglet farms as well as for aquaculture. A marketing authorization application has been filed for the aquaculture products; the two other product groups are already available on the European market. In addition, through its in-house research Evonik has developed a new product for chicken feed that it will begin marketing in the USA and China in 2017 under the name GutCare® PY1. This product contains spores of a special strain of bacteria called *Bacillus subtilis*, which inhibit the growth of the pathogen that causes subclinical necrotic enteritis.

Other products are set to follow. As Evonik develops them, it is making good use of its research expertise. So far, scientists have only begun to understand exactly how probiotics work. Evonik aims to be the world's first company to offer its customers a new generation of probiotics of proven effectiveness that have been customized to meet the customers' needs. Evonik scientists are working on an innovative intestine simulation model at the company's facility in Halle-Künsebeck, Germany. The model aims to biochemically mimic the digestive process in a chicken's entire gastrointestinal tract and demonstrate the effects of feed additives. The project is part of the innovation alliance "Good Bacteria and Bioactives in Industry" (GOBI), which is supported by the German Federal Ministry of Education and Research.*

"A chicken's intestinal tract is home to more than 100 billion bacteria. As a result, the mechanisms that take place here are extremely complex," explains Peter Freisler, who is responsible for the business with products for maintaining the intestinal health of livestock. "The aim of the Evonik model is to use a laboratory setting to find out how probiotics work and how they influence the health of farm animals. These findings will make it easier to use our products optimally later on."

For Evonik, entering the probiotics market is an initial step. "We are now looking at the health of farm animals comprehensively and from every possible perspective," explains Kobler. "Our goal is to find solutions that make animal nutrition, and thus meat production, healthy and sustainable."

This will benefit animal breeders and consumers—and also the chicken in the pens.



* The subproject "Good Bacteria and Bioactives in Industry – GOBI-FEED" is supported under the funding code 031B0074C by the German Federal Ministry of Education and Research as part of the funding program "Innovation Initiative for Industrial Biotechnology."

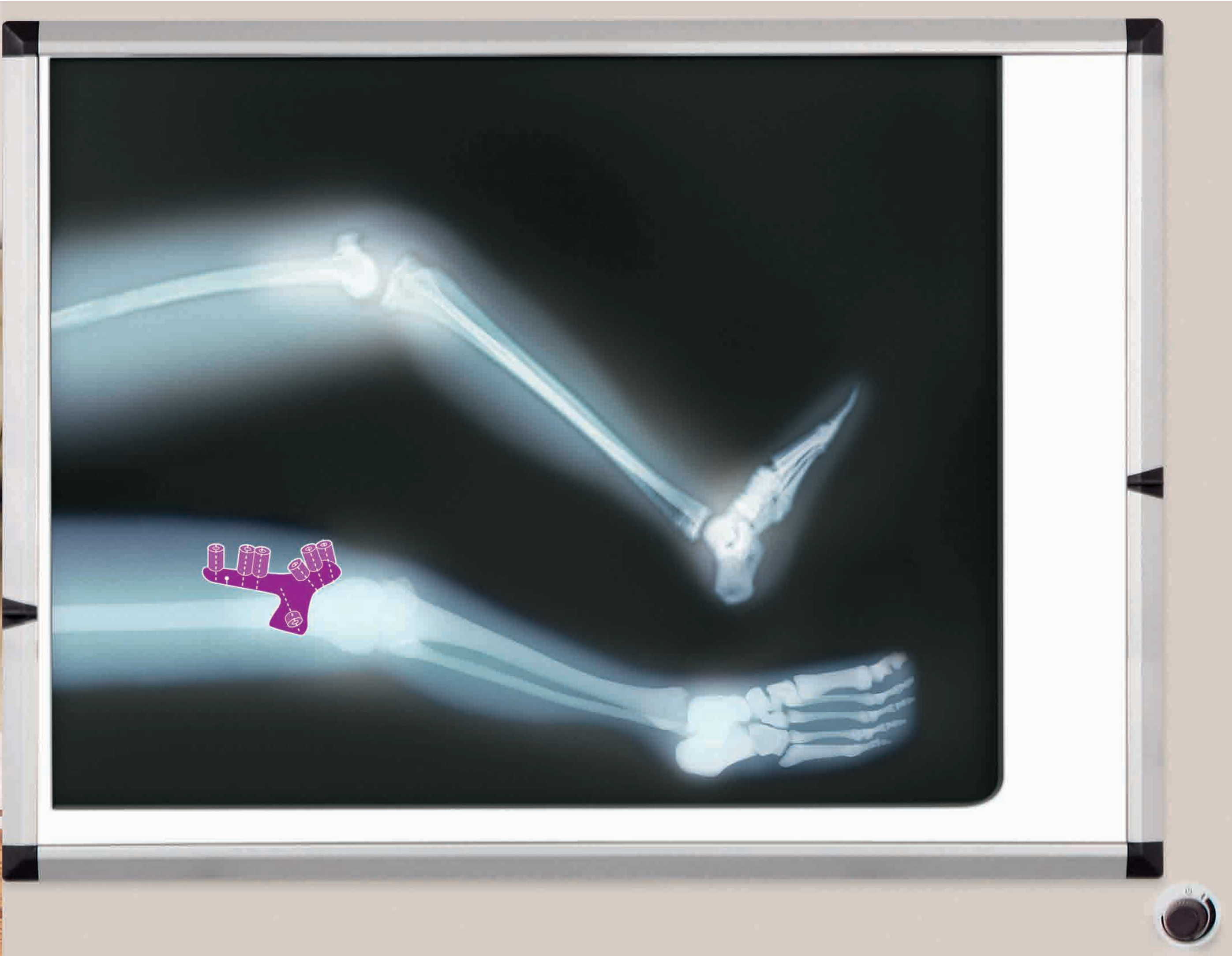
SPONSORED BY THE

Federal Ministry of Education and Research

1 Probiotics from Evonik help to stabilize the intestinal flora of chickens.
2 Probiotics from Evonik are also used in pig farming.
3 Salmon farming off the coast of Iceland—a possible area of application for probiotics from Evonik.

Connecting with the Future: New Materials from the Printer

FROM A TECHNOLOGICAL GIMMICK TO SERIAL PRINTING: 3D PRINTING IS CHANGING INDUSTRIAL PRODUCTION FROM THE GROUND UP. POLYMER POWDERS AND ADDITIVES FROM EVONIK ARE MAKING THIS CHANGE POSSIBLE.



The implantation of an artificial knee joint is one of the most frequently performed orthopedic operations. In Germany alone, approximately 165,000 operations of this kind are performed every year. They are challenging for surgeons, because every individual is different. As a result, implanting a prosthesis requires precise customization. To make sure a new knee joint fits perfectly, surgeons use a whole array of tools, including small plastic guides for directing a surgical drill. Thanks to these guides, the surgeon can place with extreme precision the holes for the screws that connect the artificial knee joint with the patient's bones. Today these drilling aids are more and more frequently coming from a 3D printer.

“Industrial production is undergoing a radical change. Medical technology is one of the first markets where 3D printing is being used to produce large batch sizes. That’s because this is an area where the new technology can fully exploit its strengths,” says Sylvia Monsheimer, an expert on the new 3D printing technologies at Evonik. 3D printing is clean, fast, and innovative. What’s more, if the result is not optimal, the data set is simply changed and the piece is printed out again. In the field of medical technology, this is a huge advantage. Evonik offers several polymers and additives for a variety of 3D printing processes.

Market researchers expect the global market for 3D printing to grow by 25 percent annually in the period until 2020. In 2016 the sales for 3D printing totaled about $7 billion, but in just the next four years it may grow to as much as $17 billion. This development is being driven by technological progress: 3D printers are becoming increasingly powerful and capable of processing gigantic data volumes. In addition, the range of materials that are suitable for 3D printing is growing. “We are supporting the growth of the market for 3D printing by expanding our capacities, developing new products, and forming partnerships,” says Matthias Kottenhahn, who heads the High Performance Polymers Business Line at Evonik.

Medical technology, aerospace, automobile production—all of these industries use components made of high-quality plastics. Usually the raw material, such as a plastic granulate, is first melted and then poured or pressed into a mold with a predetermined shape. It is then reworked with the help of special tools.

In 3D printing, this final step is not necessary. The process doesn’t require the use of tools. On the basis of a digital three-dimensional construction plan, the plastic is poured layer by layer onto a surface area. The experts call 3D printing an “additive process.” Within a short period of time, the process creates a three-dimensional object that precisely corresponds to the digital specifications—and can be used right away.

Evonik’s polyamide 12 (PA 12) makes the Group one of the leading global suppliers of powders for 3D printing. These powders, which Evonik sells under the name VESTOSINT®, are perfectly

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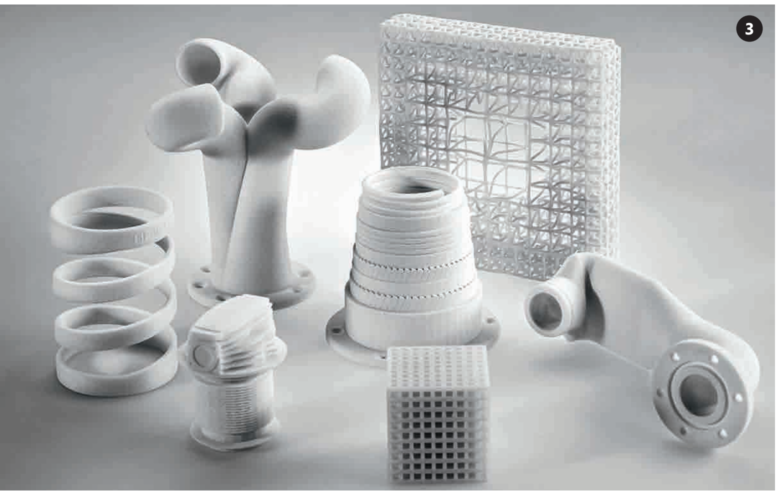
adapted to the various 3D printing technologies. They are produced at the company's location in Marl, Germany, by means of a special process that was developed in-house at Evonik. The Group is currently expanding its production capacity for VESTOSINT® by 50 percent annually. Plans call for the new production line to go into operation at the end of this year. In addition, Evonik is systematically expanding its product range for 3D printing by adding new materials and types of powder.

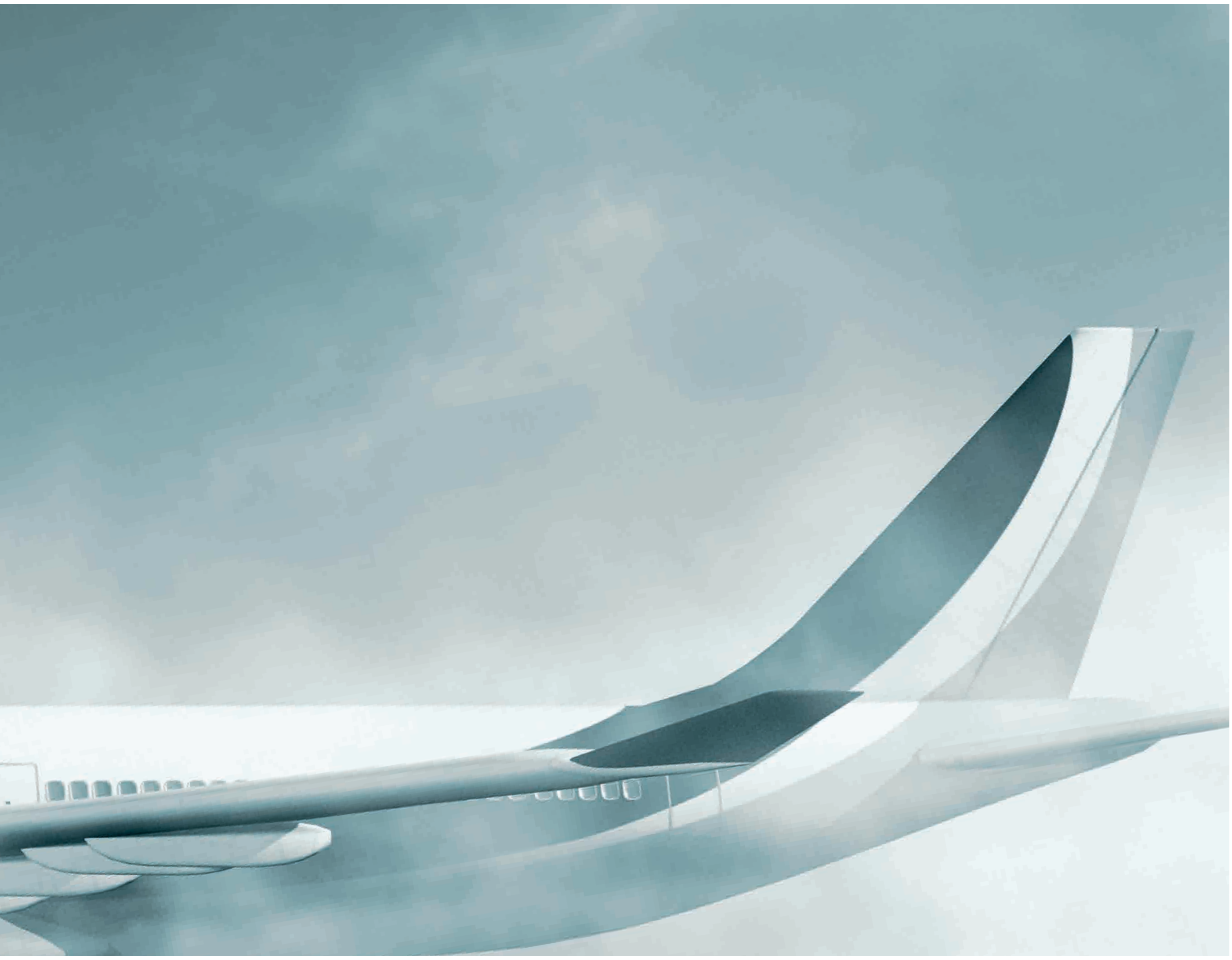
And since the summer of 2016 Evonik is also participating in the open development platform for new 3D printing materials that was created by the IT company HP Inc. in the USA. Evonik expects that this participation will result in a further wave of development for additive production technologies. In the second quarter of 2017, Evonik will be the first materials producer to launch a certified product for innovative 3D printing technology in the program.



1 The aerospace market is one of the first to use 3D printing for series production.
2 Thanks to polyamide 12, Evonik is one of the leading global suppliers of polymer powders for 3D printing.
3 Additive production makes it possible to manufacture complex three-dimensional objects in one piece without using any tools.

Connecting with the Future: Clear Views Ahead

EVONIK WILL MAKE POSSIBLE MUCH BIGGER WINDOWS IN AIRPLANES AND HELICOPTERS—SO THAT PASSENGERS AND PILOTS CAN SEE JUST AS MUCH AS PEOPLE IN A CONVERTIBLE. FOR THAT REASON, IT'S BUILDING THE WORLD'S MOST MODERN STRETCHING AND POLISHING PLANT FOR POLYMETHYL METHACRYLATE IN WEITERSTADT, GERMANY.



Spectacular sunrises over the African savanna, millions of lights illuminating New York City at night, white clouds piled up like luscious towers of cotton candy—today only the passengers who are sitting next to an airplane's window can enjoy breathtaking sights like these. Their neighbors sitting along the aisles can only do their best to imagine these spectacular views. That's because normal airplane windows are only 29 centimeters high.

Airplane manufacturers now aim to change that very soon. In their concept studies of the airplane of the future, all the passengers will have an unobstructed view over the clouds. In their technical visions, the designers are already seeing fully glassed-in planes flying through the air. From inside, the passengers and pilots can observe their surroundings unhindered through gigantic panoramic windows. However, it will still take some years for these visions to be

1 The materials used in aircraft are subjected to tremendous loads—PLEXIGLAS® stands up to them all.
2 PLEXIGLAS® is used for airplane windows.
3 PLEXIGLAS® also offers smart solutions for helicopters.

realized. "Today there's already a definite trend toward bigger cabin windows in passenger planes," says Martin Krämer, who heads the Acrylic Products Business Line at Evonik. For example, Boeing has enlarged the windows of the current model of the Dreamliner by two thirds—to a height of 48 centimeters. And that's only the beginning.

Outstanding mechanical and optical properties, low weight, and easy processing: The materials used in the aerospace industry must withstand extremely high levels of stress. That's why a special kind of PLEXIGLAS®* sold under the ACRYLITE® trademark in the Americas is often used for the windows of airplanes and helicopters—and this has been the case for decades. In simple terms, these windows are made of cast PLEXIGLAS®, which is elongated in a time-consuming and very complex process. The technical term for this is "stretching." Evonik is one of the leading producers of the necessary intermediate product.

In the future, Evonik will also take over the stretching and polishing process, thus making much larger windows possible. That's yet another example of the smart way the Group is organizing its PLEXIGLAS® business. In Weiterstadt, Germany, Evonik is investing double-digit millions of euros in a new stretching and polishing facility for PLEXIGLAS® materials for aircraft. Production is scheduled to begin in early 2018.

At the moment, the industry has reached its limits regarding the size of large airplane windows. Currently, the biggest available stretched polymethyl methacrylate (PMMA) panels measure only 2.5 by 2.5 meters. Each of these panels is cut into several windows for passenger airplanes. However, this format is too small for producing large panorama windows or heavy-duty cockpit windshields in a single piece.

Evonik will soon become the first and only company in the world to market panels that are double this size—up to 3.7 by 5.4 meters—and deliver them directly to airplane window producers. As a specialty chemicals manufacturer, it will thus create a key prerequisite for the production of panorama windows for aircraft.

What's more, the larger panel format will enable manufacturers of conventional aircraft windows to produce almost twice as many windows from a single panel. That makes economic sense. "We are rounding out our product portfolio as a full-service supplier of cast and stretched PMMA panels for the aerospace industry and positioning ourselves as a leading producer of polymer materials and intermediate products," explains Roland Mickal, who heads the Transportation market segment in Evonik's Acrylic Products Business Line.

The current aerospace-industry growth rates are attractive for Evonik. According to estimates, the four biggest producers of passenger aircraft, taken alone, will deliver approximately 30,000 new airplanes to their customers by 2031. That's because more and more people all over the world can afford to fly away on vacation or are flying on business trips.

In the stretching process, the blocks of PLEXIGLAS® are first heated up and then stretched out with the help of clamps. This expands one square meter of PLEXIGLAS® into a panel measuring three square meters. Subsequently the cooled-off material is cut and polished. "The new facility will be the most modern one of its kind in the whole world. Thanks to our technology leadership, we will be able to offer our customers optimized products in the future," says the Evonik expert Roland Mickal.

In addition, the stretched PLEXIGLAS® panels from Evonik will be extremely uniform. According to the experts, their thickness tolerance will be greatly improved. This is a value that indicates the extent to which a material's thickness deviates from a desired target value. The smaller the deviations and the more constant this value remains, the more uniform are the technical properties of the material. There's also another factor regarding airplane windows in particular: The lower the thickness tolerance is, the more lightweight are the windows and thus the entire airplane—and the less kerosene is consumed. That makes flying in a panorama jet not only more fun but also more environmentally friendly.

* Two brands, one product: Evonik is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the ACRYLITE® trademark in the Americas.

TO OUR SHAREHOLDERS

Our strategy is based on profitable growth, efficiency and values. We are strengthening our leading market positions and concentrating on attractive growth businesses and emerging markets. Innovations and external growth give us access to new growth areas. We are also continuously improving our cost base and technology position.

Report of the Supervisory Board

DR. WERNER MÜLLER

Chairman of the Supervisory Board

Ladies and gentlemen,

In 2016, the Supervisory Board of Evonik Industries AG (Evonik) performed the obligations defined by law and the Articles of Incorporation correctly and with the utmost care, and regularly and conscientiously supervised the work of the Executive Board. We supported the Executive Board by providing advice on the management and strategic development of the company.

Collaboration between the Executive Board and Supervisory Board

The Executive Board always gave us full and timely information on all material issues affecting the Group, and involved us in all fundamental decisions affecting the company. Key areas were business performance and the situation of the company, along with aspects of business policy, corporate planning and Evonik's ongoing strategic development.

The Supervisory Board's oversight of the Executive Board centered in particular on ensuring the correct, orderly, expedient and cost-effective management of Group-wide business activities. The content and scope of reporting by the Executive Board complied with the law, the principles of good corporate governance and the requirements set by the Supervisory Board.

Section 16 of the Articles of Incorporation of Evonik Industries AG and the Rules of Procedure of the Supervisory Board set out business activities and measures of fundamental importance on which the Executive Board is required to seek the approval of the Supervisory Board or, in some cases, individual committees. In the past fiscal year, the Supervisory Board took decisions on business activities and measures submitted by the Executive Board after examining them and discussing them with the Executive Board.

Meetings and work of the Supervisory Board

We examined all issues of importance to the company at six meetings, on March 2, May 6, May 18, June 28, September 29 and December 9, 2016.

In 2016 the work of the Supervisory Board was again supported and prepared by its committees. The committees and their members in the year under review were as follows:

- Executive Committee: Dr. Werner Müller (Chairman), Edeltraud Glänzer (from May 19, 2016; Deputy Chairwoman), Michael Vassiliadis (until May 18, 2016; Deputy Chairman), Ralf Hermann, Dr. Volker Trautz.
- Audit Committee: Dr. Siegfried Luther (Chairman and financial expert within the meaning of Section 100 Paragraph 5 German Stock Corporation Act/AktG, and Section 5.3.2 of the German Corporate Governance Code), Karin Erhard (Deputy Chairwoman), Prof. Barbara Grunewald, Norbert Pohlmann, Dr. Wilfried Robers, Angela Titzrath (from May 19, 2016), Dr. Christian Wildmoser (until May 18, 2016).
- Finance and Investment Committee: Michael Rüdiger (Chairman), Ralf Hermann (from May 19, 2016 also Deputy Chairman), Michael Vassiliadis (until May 18, 2016; Deputy Chairman), Martin Albers, Stephan Gemkow, Edeltraud Glänzer (from May 19, 2016), Frank Löllgen, Dr. Werner Müller, Ulrich Weber (from May 19, 2016), Dr. Christian Wildmoser (until May 18, 2016).
- Nomination Committee: Dr. Werner Müller (Chairman), Steven Koltes (until May 18, 2016), Dr. Volker Trautz, Ulrich Weber (from May 19, 2016).
- Mediation Committee: Dr. Werner Müller (Chairman), Edeltraud Glänzer (from May 19, 2016; Deputy Chairwoman), Michael Vassiliadis (until May 18, 2016; Deputy Chairman), Ralf Hermann, Dr. Volker Trautz.

The tasks allocated to these committees are described in detail in the Corporate Governance Report on pages 36 to 45.

The Executive Committee held nine meetings in 2016. The Audit Committee met four times and the Finance and Investment Committee held five meetings. The Nomination Committee met twice in the reporting period. There was no need for the Mediation Committee to meet during the reporting period. The chairman or deputy chairperson of each committee reported regularly at the meetings of the Supervisory Board on the issues discussed and outcome of all committee meetings. The Supervisory Board therefore always received accurate and extensive information on all matters of significance in the Evonik Group.

At its meeting in March, the Supervisory Board focused on examining the annual financial statements, which had first been considered in detail by the Audit Committee, and preparing for the Annual Shareholders' Meeting. It also adopted the Corporate Governance Report for 2015, the bonus payments to the Executive Board for 2015, and their targets for 2016. At the meeting on May 6, the Supervisory Board approved the acquisition of the entire specialty additives business of Air Products for US$ 3.8 billion. The meeting on May 18 was dedicated to supplementary information prior to the Annual Shareholders' Meeting. As well as business activities requiring their approval and the reports on the condition of the company and the Group, at the June meeting the Supervisory Board examined the report on the workforce. Alongside a report on corporate strategy, the meeting in September approved the construction and operation of a backwardly integrated methionine plant at the site on Jurong Island (Singapore). At its meeting in December the Supervisory Board approved the acquisition of the global silicas business of the US company J. M. Huber for US$630 million, adopted the declaration of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG) and discussed the budget for 2017 and the mid-term planning up to 2019.

The Executive Committee primarily dealt with the following issues in the year under review: the agenda and proposals for resolutions for the Annual Shareholders' Meeting, specifically amendment of Section 15 Paragraph 1 of the Articles of Incorporation, the bonus payments to the members of the Executive Board for 2015 and their targets for 2016, the appointment of Christian Kullmann as Deputy Chairman of the Executive Board, acceptance and discussion of the reports of the Chairman of the Executive Board on the status of the acquisition of the Air Products' business and the silicas business of J. M. Huber Corporation, and discussion Evonik's business performance, current projects and share price.

At its meeting in February, the Audit Committee mainly examined the annual financial statements of Evonik Industries AG, the consolidated financial statements, the proposal for the election of the auditor for fiscal 2016, and the report on verification of the efficacy of the internal control system. The focal points at the May meeting were the quarterly statement as of March 31, 2016 and business performance, while the August meeting examined the interim financial statements as of June 30, 2016, the appointment of the auditor of the consolidated financial statements to perform a review of the quarterly financial statements as of September 30, 2016, and the changes resulting from the German Audit Reform Act (AReG). In November the main issues discussed by the Audit Committee, apart from the interim report on the third quarter, were the corporate governance report and the declaration of conformity, the consequences of the Audit Reform Act on the independence of auditors, and preparations for the efficiency review in 2017.

The attention of the Finance and Investment Committee in the reporting period was mainly concentrated on acquisitions and growth projects (see "Acquisitions and investments").

The Nomination Committee met in March to discuss and examine the proposed candidates for the vacancies on the Supervisory Board as Steven Koltes and Dr. Christian Wildmoser were stepping down with effect from the end of the Annual Shareholders' Meeting on May 18, 2016. The committee recommended that the Supervisory Board should nominate Angela Titzrath and Ulrich Weber at the Annual Shareholders' Meeting as candidates for election to the Supervisory Board. At its meeting in November the Nomination Committee examined further succession planning.

In addition—apart from the reports required by law—the Supervisory Board and its committees examined and discussed the following issues in detail:

Performance and situation of the Evonik Group

Evonik's operating business performed well although the overall economic environment remained challenging. Thanks to high global demand for its products, the Group posted satisfactory volume growth. However, selling prices declined considerably, partly because lower raw material prices were passed on to customers. Overall, sales were 6 percent lower than in the previous year at €12,732 million. Adjusted EBITDA slipped 12 percent year-on-year to €2,165 million.

Acquisitions and investments

The Supervisory Board and its committees were closely involved in the two central acquisitions—the acquisition of the Air Products' specialty additives business and of J. M. Huber Corporation's silicas business. These acquisitions strengthen the segments of the Evonik Group.

We also discussed the development of Evonik's sales, earnings and capacity utilization, the financial and earnings position, and the other main growth projects, including investment controlling for current projects. In addition to the acquisitions already mentioned, the projects considered in detail by the Supervisory Board and the Finance and Investment Committee included:

- Construction of a backwardly integrated methionine plant (Singapore)
- Construction of a production plant for silica (USA)
- Construction of an integrated silicone facility at the multi-user site in Shanghai (China)
- Acquisition of the food ingredients business of MedPalett AS (Norway)
- Acquisition of the L-methionine technology of Metabolic Explorer (France)
- Acquisition of Transferra Nanosciences, Inc. (Canada), which develops and manufactures liposomal pharmaceuticals
- Expansion of production capacity for hollow fiber membrane modules (Austria)
- Status report on a hydrogen peroxide plant (China)
- Status report on a joint venture for the production of superabsorbents (Saudi Arabia)

Other issues addressed by the Supervisory Board and its committees

In addition to the issues and developments outlined above, the main topics addressed by the Supervisory Board and its committees in 2016 were:

- Proposals for resolutions to be adopted at the Annual Shareholders' Meeting in May 2016, especially the proposal of the Supervisory Board to the Annual Shareholders' Meeting on the appointment of the auditor
- Changes to the Rules of Procedure of the Supervisory Board, including reducing the Executive Committee to four members
- Employee share program 2017
- The digitization strategy for the Evonik Group
- Appointment of Christian Kullmann as Deputy Chairman of the Executive Board (see also "Personnel issues relating to the Executive Board and the Supervisory Board" on page 35), and the associated reallocation of responsibilities of the Executive Board members
- Resolutions on the Declaration of Conformity in compliance with Section 161 of the German Stock Corporation Act (AktG) in December 2016, and the Supervisory Board's report to the Annual Shareholders' Meeting.

Corporate governance

The Supervisory Board is committed to the principles of good corporate governance. This is based principally on recognition of the provisions of the German Corporate Governance Code in the present version of May 5, 2015. This does not exclude the possibility of deviation from its recommendations and suggestions in legitimate individual cases.

Since it is listed on the stock exchange, Evonik is subject to the obligation contained in Section 161 of the German Stock Corporation Act (AktG) to submit a declaration of the extent to which it has complied with or will comply with the German Corporate Governance Code and which recommendations have not been and will not be met, together with the reasons for this (declaration of conformity). In December 2016, the Executive Board and Supervisory Board issued a declaration of conformity, which is published on the company's website and in the Corporate Governance Report on page 36.

The Supervisory Board has set objectives for its composition, which are taken into account by the Shareholders' Meeting when electing members of the Supervisory Board. These targets were revised in December 2016 to comply with the amended version of the German Stock Corporation Act (AktG), which stipulates that the Supervisory Board as a whole must be familiar with the sector in which the company operates.

The present Supervisory Board satisfies the objectives for its composition.

The Supervisory Board comprises seven women and thirteen men. In accordance with its own targets and in compliance with statutory requirements, it therefore meets the minimum of 30 percent women and 30 percent men.

Individual disclosure of the attendance at meetings of the Supervisory Board and its committees

	Supervisory Board		Executive Committee		Finance & Investment Committee		Audit Committee		Nomination Committee		Mediation Committee	
Supervisory Board member	Presence	in %	Presence	in %	Presence	in %	Presence	in %	Presence	in %	Presence	in %
Dr. Werner Müller (Chairman)	6/6	100	9/9	100	5/5	100			2/2	100	0/0	
Edeltraud Glänzer (from May 19, 2016; Deputy Chairwoman)	3/3	100	5/5	100	3/3	100					0/0	
Michael Vassiliadis (until May 18, 2016; Deputy Chairman)	3/3	100	4/4	100	2/2	100					0/0	
Martin Albers	6/6	100			5/5	100						
Prof. Barbara Albert	6/6	100										
Karin Erhard	6/6	100					4/4	100				
Carmen Fuchs	6/6	100										
Stephan Gemkow	5/6	83.3			4/5	80						
Prof. Barbara Grunewald	6/6	100					4/4	100				
Ralf Hermann	6/6	100	8/9	88.9	5/5	100					0/0	
Prof. Wolfgang A. Herrmann	6/6	100										
Dieter Kleren (until May 18, 2016)	3/3	100										
Steven Koltes (until May 18, 2016)	1/3	33.3							0/1	0		
Frank Löllgen	6/6	100			5/5	100						
Dr. Siegfried Luther	6/6	100					4/4	100				
Norbert Pohlmann	6/6	100					4/4	100				
Dr. Wilfried Robers	6/6	100					4/4	100				
Michael Rüdiger	6/6	100			5/5	100						
Anke Strüber-Hummelt (from May 19, 2016)	3/3	100										
Ulrich Terbrack	6/6	100										
Angela Titzrath (from May 19, 2016)	2/3	66.7					2/2	100				
Dr. Volker Trautz	6/6	100	9/9	100					2/2	100	0/0	
Ulrich Weber (from May 19, 2016)	3/3	100			2/3	66.7			1/1	100		
Dr. Christian Wildmoser (until May 18, 2016)	3/3	100			2/2	100	2/2	100				

At least five members of the Supervisory Board should be independent within the meaning of Section 5.4.2 of the German Corporate Governance Code. To ensure this, a Supervisory Board member should not have any personal or business relations with the company, its executive bodies, a controlling shareholder or an enterprise associated with the latter which may cause a substantial and not merely temporary conflict of interests. The Supervisory Board considers all current members to be independent, namely because, in its view, election as an employee representative does not conflict with such independence.

Further details of the diversity requirements and the list of objectives are set out in the corporate governance report on page 44.

For 2016, the members of the Supervisory Board will receive attendance fees and purely fixed remuneration for their work on the Supervisory Board and any membership of committees (see page 113).

Members of the Supervisory Board of Evonik Industries AG had no conflicts of interest in 2016.

Moreover, there were no consultancy, service or similar contracts with any members of the company's Supervisory Board in 2016. Furthermore, there were no transactions between the company or a company in the Evonik Group on the one hand and Supervisory Board members and related parties on the other.

Audit of the annual financial statements

PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft (PwC), Düsseldorf (Germany) has audited the financial statements of Evonik Industries AG as of December 31, 2016 prepared in accordance with the German Commercial Code (HGB), the consolidated financial statements for the Evonik Group prepared using the International Financial Reporting Standards (IFRS), as permitted by Section 315 a Paragraph 1 of the German Commercial Code (HGB), and the combined management report for Evonik Industries AG and the Evonik Group, and has endorsed them with an unqualified opinion pursuant to Section 322 of the German Commercial Code (HGB). The Supervisory Board awarded the contract for the audit of the annual financial statements of Evonik Industries AG and the consolidated financial statements of the Evonik Group in line with the resolution taken by the Shareholders' Meeting on May 18, 2016. In accordance with Section 317 Paragraph 4 of the German Commercial Code (HGB), the annual audit includes an audit of the risk identification system. The audit established that the Executive Board has taken the steps required in compliance with Section 91 Paragraph 2 of the German Stock Corporation Act (AktG) to establish an appropriate risk identification system and that this system is suitable for timely identification of developments that could represent a threat to the continued existence of the company.

The Executive Board submitted the above documents, together with the auditor's reports and the Executive Board's proposal for the distribution of the profit to all members of the Supervisory Board to prepare for the meeting of the Supervisory Board on March 1, 2017. At its meeting on February 23, 2017, the Audit Committee discussed the annual financial statements, auditor's reports, and proposal for the distribution of the profit in the presence of the auditor to prepare for the subsequent examination and discussion of these documents by the full meeting of the Supervisory Board. Further, the Audit Committee requested the auditor to report on its collaboration with the internal audit department and other units involved in risk management, and on the effectiveness of the risk identification system with respect to accounting. The auditor reported that the Executive Board had taken the steps required in compliance with Section 91 Paragraph 2 of the German Stock Corporation Act (AktG) to establish an appropriate risk identification system and that this system is suitable to ensure timely identification of developments that could represent a threat to the continued existence of the company.

The Supervisory Board conducted a thorough examination of the annual financial statements of Evonik Industries AG, the consolidated financial statements for the Evonik Group, the combined management report for fiscal 2016 and the Executive Board's proposal for the distribution of the profit and—on the basis of explanations of these documents by the Executive Board—discussed them at its meeting on March 1, 2017. The auditor was also present at this meeting and reported on the main findings of the audit. He also answered questions from the Supervisory Board about the type and extent of the audit and the audit findings. The discussion included the audit of the risk identification system. The Supervisory Board shares the Audit Committee's assessment of the effectiveness of this system.

In this way, the Supervisory Board convinced itself that the audit had been conducted properly by the auditor and that both the audit and the audit reports comply with the statutory requirements. Following its thorough examination of the annual financial statements of Evonik Industries AG, the consolidated annual financial statements and the combined management report (including the declaration on corporate governance), the Supervisory Board declares that, based on the outcome of its examination, it has no objections to raise to the annual financial statements of Evonik Industries AG, the consolidated annual financial statements and the combined management report. In line with the recommendation made by the Audit Committee, the Supervisory Board has therefore accepted the audit findings. At its meeting on March 1, 2017, the Supervisory Board therefore endorsed the annual financial statements of Evonik Industries AG and the consolidated annual financial statements. The annual financial statements for 2016 are thus ratified. The Supervisory Board concurs with the Executive Board's assessment of the situation of the company and the Group as expressed in the combined management report. The Supervisory Board considered the Executive Board's proposal for the distribution of the profit, in particular with a view to the dividend policy, the impact on liquidity and its regard for shareholders' interests. This also included an explanation by the Executive Board and a discussion with the auditor. The Supervisory Board then voted in favor of the proposal put forward by the Executive Board for the distribution of the profit.

Examination of the report by the Executive Board on relations with affiliated companies

The Executive Board has prepared a report on relations with affiliated companies in 2016. This was examined by the auditor, who issued the following unqualified opinion in accordance with Section 313 of the German Stock Corporation Act (AktG):

"In accordance with our professional audit and judgment we confirm that
1. the factual disclosures made in this report are correct
2. the company's expenditures in connection with the legal transactions contained in the report were not unreasonably high."

The Executive Board submitted the report on relations with affiliated companies and the associated auditor's report to all members of the Supervisory Board to enable them to prepare for the Supervisory Board meeting on March 1, 2017.

The Audit Committee conducted a thorough examination of these documents at its meeting on February 23, 2017 to prepare for the examination and resolution by the full Supervisory Board. The members of the Executive Board provided detailed explanations of the report on relations with affiliated companies and answered questions on it. The auditor, who was present at this meeting, reported on the main findings of the audit of the report on relations with affiliated companies and answered questions raised by members of the Audit Committee. The members of the Audit Committee acknowledged the audit report and the audit opinion. The Audit Committee was able to convince itself of the orderly nature of the audit and audit report and, in particular, came to the conclusion that both the audit report and the audit conducted by the auditor comply with the statutory requirements. The Audit Committee recommended that the Supervisory Board should approve the results of the audit and, since it was of the opinion that there were no objections to the Executive Board's declaration on the report on relations with affiliated companies, should adopt a corresponding resolution.

The Supervisory Board discussed the report on relations with affiliated companies at its meeting on March 1, 2017. At this meeting too, the members of the Executive Board provided detailed explanations of the report on relations with affiliated companies and answered questions on it. Moreover, the auditor was present at this meeting of the Supervisory Board and reported on the main findings of the audit of the report on relations with affiliated companies and answered questions from members of the Supervisory Board. On this basis, the Supervisory Board ascertained that under the circumstances known at the time they were undertaken, the company's expenditures in connection with the transactions outlined in the report on relations with affiliated companies were not unreasonably high and compensation had been received for any disadvantages. In particular, it obtained an explanation of the principles used to determine the relevant activities and the remuneration therefor, especially in the case of transactions of material significance. The Audit Committee had discussed the report on relations with affiliated companies and gave the Supervisory Board a detailed overview of the outcome of its deliberations. The Supervisory Board was able to convince itself of the orderly nature of the audit and audit report and came to the conclusion, in particular, that both the audit report and the audit itself meet the statutory requirements.

In particular, it examined the completeness and correctness of the report on relations with affiliated companies. No grounds for objection were identified.

The Supervisory Board thus has no objection to raise to the final declaration made by the Executive Board in its report on relations with affiliated companies and concurs with the auditors' findings.

Personnel issues relating to the Executive Board and Supervisory Board

At its meeting on May 6, 2016 the Supervisory Board appointed Christian Kullmann as Deputy Chairman of the Executive Board with immediate effect, for the remaining term of his period of office, in other words, until June 30, 2019.

In fiscal 2016 there were changes in both shareholder and employee representatives on the Supervisory Board. The shareholder representatives Steven Koltes and Dr. Christian Wildmoser stepped down with effect from the end of the Annual Shareholders' Meeting on May 18, 2016. Through a resolution of the Annual Shareholders' Meeting, Angela Titzrath was elected to the Supervisory Board as successor to Steven Koltes with effect from May 19, 2016. The Annual Shareholders' Meeting elected Ulrich Weber to replace Dr. Christian Wildmoser, also with effect from May 19, 2016. On the employee side, Michael Vassiliadis and Dieter Kleren stepped down from the Supervisory Board with effect from the end of the Annual Shareholders' Meeting on May 18, 2016. Edeltraud Glänzer was appointed to the Supervisory Board effective May 19, 2016 through a decision taken by the District Court of Essen on April 11, 2016 in accordance with Section 104 of the German Stock Corporation Act (AktG). Anke Strüber-Hummelt was appointed to the Supervisory Board to replace Dieter Kleren effective May 19, 2016 through a decision taken by the District Court of Essen on May 11, 2016 in accordance with Section 104 of the German Stock Corporation Act (AktG).

The changes in the members of the Supervisory Board also led to changes on the committees. The Supervisory Board appointed Edeltraud Glänzer as Deputy Chairwoman and a member of the Finance and Investment Committee. It also appointed Ralf Hermann as Deputy Chairman of the Finance and Investment Committee, Angela Titzrath as a member of the Audit Committee, and Ulrich Weber as a member of the Nomination Committee. These appointments took effect on May 19, 2016. In her function as Deputy Chairwoman of the Supervisory Board, Edeltraud Glänzer is also a member and Deputy Chairperson of the Executive Committee and the Mediation Committee.

The Supervisory Board would like to thank those members who have left for their dedicated commitment to the good of the company and its workforce over the years.

Concluding remark

The Supervisory Board would also like to thank the Executive Board, Works Councils and Executive Staff Councils, and all employees of Evonik Industries AG and its affiliated companies, for their successful work over the past year.

The Supervisory Board adopted this report at its meeting on March 1, 2017, in accordance with Section 171 Paragraph 2 of the German Stock Corporation Act (AktG).

Essen, March 1, 2017

On behalf of the Supervisory Board
Dr. Werner Müller, Chairman

Joint report of the Executive Board and Supervisory Board of Evonik Industries AG on Corporate Governance

(Corporate Governance Report)

1. Principles of corporate governance and corporate structure

Corporate governance comprises all principles for the management and supervision of a company. As an expression of good and responsible corporate management, it is therefore a key element in Evonik's management philosophy. The principles of corporate governance relate mainly to collaboration within the Executive Board and Supervisory Board, between these two boards and between the boards and the shareholders, especially at Shareholders' Meetings. They also relate to the company's relationship with other people and organizations with which it has business dealings.

Evonik is committed to the German Corporate Governance Code

Evonik Industries is a stock corporation established under German law. Its shares have been listed on the stock exchange since April 25, 2013.

Alongside compliance with the provisions of the relevant legislation, the basis for ensuring responsible management and supervision of Evonik with a view to a sustained increase in corporate value is our commitment to the German Corporate Governance Code in the version dated May 5, 2015. This code, which was adopted by the Government Commission on the German Corporate Governance Code, contains both key statutory provisions on the management and supervision of publicly listed German companies, and recommendations and suggestions based on nationally and internationally recognized standards of responsible corporate governance.

The Executive Board and Supervisory Board of Evonik Industries AG are explicitly committed to responsible corporate governance and identify with the goals of the German Corporate Governance Code. According to the foreword, in the interest of good and proactive corporate governance, a company may deviate from the recommendations set out in the code if this is necessary to reflect enterprise-specific requirements.

2. Information on corporate management and corporate governance

2.1 Declaration of conformity with the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG)

Under Section 161 of the German Stock Corporation Act (AktG), the Executive Board and Supervisory Board of Evonik Industries AG are required to annually submit a declaration that the company has been, and is, in compliance with the recommendations of the Government Commission on the German Corporate Governance Code and which recommendations have not been or are not being applied, together with the associated reasons. The declaration has to be made permanently available to the public on the company's website.

The Executive Board and Supervisory Board of Evonik Industries AG hereby submit the following declaration pursuant to Section 161 of the German Stock Corporation Act:

Since submitting its last declaration of conformity in December 2015, the company has fully complied with all recommendations of the German Corporate Governance Code in the version dated May 5, 2015, as published in the Federal Gazette on June 12, 2015, and will continue to do so.

Further, nearly all suggestions contained in the aforementioned version of the German Corporate Governance Code were applied, with the following exceptions:

The suggestion set forth in Section 2.3.3 of the German Corporate Governance Code (the company should make it possible to follow the general meeting using modern communication media) was not and will not be applied. Instead, for organizational reasons, only the speeches by the Chairman of the Supervisory Board and the Chairman of the Executive Board will be transmitted. This procedure also correlates with widespread practice. Moreover, it cannot be excluded that a more extensive transmission could infringe the personal rights of shareholders, which are to be protected.

Further, Section 2.3.2 Sentence 2, second half-sentence of the German Corporate Governance Code (the representative appointed to exercise shareholders' voting rights in accordance with instructions should also be reachable during the general meeting) was not and will not be applied. Application of this suggestion would only be appropriate in the event of transmission of the general shareholders' meeting in full via modern communication media. Furthermore, the availability of the representatives nominated by the company via electronic media during the meeting as put forward by this suggestion involves technical uncertainties. These and the associated risks for the efficacy of resolutions are to be avoided.

Essen, December 2016

The Executive Board The Supervisory Board

2.2 Relevant information on corporate management practices

Corporate governance

The company complies with the recommendations and—with two exceptions (detailed in section 2.1 above)—the suggestions set forth in the German Corporate Governance Code.

Compliance

Evonik understands compliance as all activities to ensure that the conduct of the company, its governance bodies and its employees respect all applicable mandatory standards such as legal provisions, statutory requirements and prohibitions, in-house directives and voluntary undertakings. The basis for this understanding and for compliance with these binding standards is set out in Evonik's Code of Conduct.

Code of Conduct

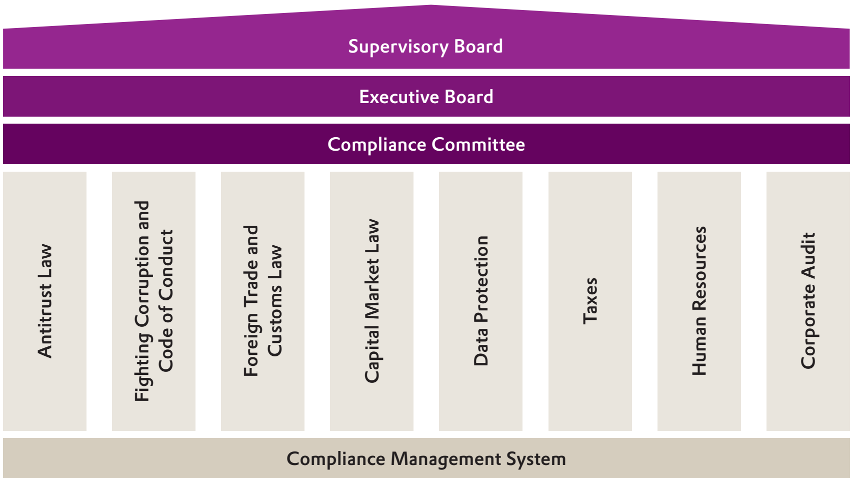
Evonik's binding Group-wide Code of Conduct contains the most important external and internal principles and rules, and governs the conduct of Evonik, its legal representatives and its employees both internally, in the treatment of one another, and externally in contact with the company's shareholders and business partners, representatives of authorities and government bodies, and the general public. It requires all employees to comply with the applicable laws, regulations and other obligations. All employees receive training in the Code of Conduct and systematic action is taken to deal with any breach of its rules.

House of Compliance

The compliance areas identified as being of specific relevance to our company are bundled in a House of Compliance. They include antitrust law, fighting corruption, the Code of Conduct, foreign trade and customs law, capital market law, data protection, taxes and human resources. Environment, safety, health and quality are bundled in a separate corporate division.

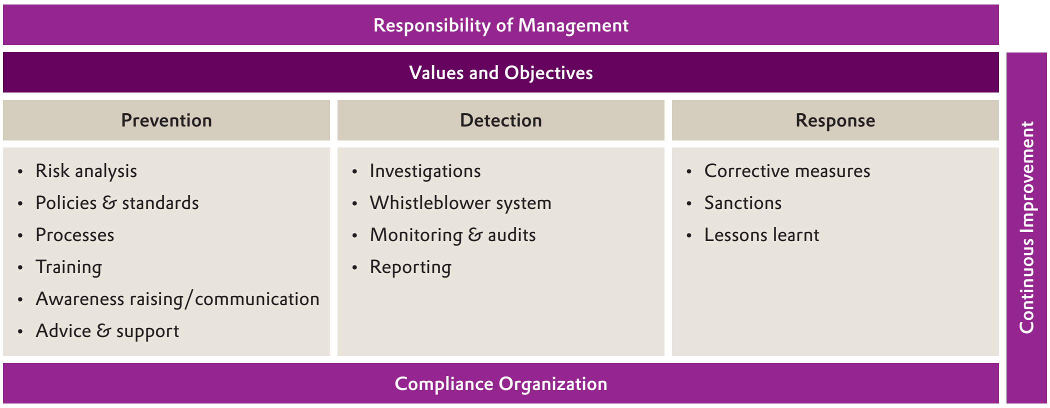
The role of the House of Compliance is to define minimum Group-wide standards for the compliance management systems for these areas and ensure that they are implemented. The process of forming a consensus, sharing experience and coordinating joint activities takes place in the Compliance Committee, which is composed of the heads of the respective units, who have independent responsibility for their areas, and the Head of Corporate Audit. The Compliance Committee is chaired by the Head of Compliance and Antitrust Law.

House of Compliance



The compliance management system to be implemented by each area of compliance on the basis of the defined values and specific targets has to implement the tools shown in the next chart. Measures must be put in place to avoid compliance risks and systematic misconduct, identify cases of misconduct, apply appropriate sanctions, and correct process weaknesses.

Compliance Management System (CMS)



Further information on Evonik's compliance management system and the corresponding areas of focus and action taken in the year under review can be found in the Sustainability Report.[1]

[1] Sustainability Report 2015 (the Sustainability Report 2016 will be published in April 2017).

Corporate Responsibility

Companies that strive for lasting success on the market need social acceptance as well as reliable and responsible corporate governance. At Evonik, the framework for this is provided by the Global Social Policy (GSP), together with the Code of Conduct and our Environment, Safety, Health and Quality (ESHQ) Values. The GSP makes it clear that our corporate success is based to a large extent on the professionalism and commitment of all employees. It contains the principles of how we treat one another and how we affirm our social responsibility to our employees. That includes an undertaking to observe internationally recognized standards of conduct such as the Guidelines for Multinational Enterprises issued by the Organisation for Economic Cooperation and Development (OECD), and the International Labor Standards of the International Labour Organisation (ILO).

By joining the United Nations' Global Compact (UN Global Compact), Evonik gave an undertaking that, within its sphere of influence, it would respect and promote labor rights and human rights, avoid discrimination, protect people and the environment and fight against corruption. We want to make a contribution to achieving the United Nations' 17 sustainable development goals. Our commitment to protecting human rights is underpinned by the Policy Statement on Human Rights adopted by the Executive Board in summer 2016.

Evonik is committed to the Code of Responsible Conduct for Business initiated by the Wittenberg Center for Global Ethics, which includes fair competition, social partnership, the merit principle and sustainability.

As a signatory to the chemical industry's Responsible Care® Global Charter, we aim to continuously improve our performance in health protection, environmental protection, product stewardship and safety. Our ESHQ Values define protecting people and the environment as core elements of our actions. They outline Evonik's understanding of ESHQ. Together with more detailed guidelines and procedures, they form a binding set of regulations. Evonik regularly reports on its climate performance as part of the world's largest climate initiative, the Carbon Disclosure Project (CDP).

We expect our suppliers to share our principles and to accept their responsibility towards their employees, business partners, society and the environment. Our requirements in this respect are set out in our Supplier Code of Conduct.

Our sustainability reporting complies with the Global Reporting Initiative (GRI G4, core).

The above documents on our responsible conduct can be found on the internet:

- **Global Social Policy** www.evonik.com/gsp
- **Code of Conduct** www.evonik.com/coc
- **ESHQ Values** www.evonik.com/esh
- **OECD Guidelines for Multinational Enterprises** www.evonik.com/oecd-guidelines
- **International Labor Standards of the International Labour Organisation** www.ilo.org/global/standards/lang--en/index.htm
- **UN Global Compact** www.unglobalcompact.org/what-is-gc/mission/principles
- **Policy Statement on Human Rights** www.evonik.com/policy-statement
- **Code of Responsible Conduct for Business** www.wcge.org/images/dialog/leitbild/140918_leitbild-eng_Unterschriften_o.pdf
- **Responsible Care® Global Charter** www.icca-chem.org/responsible-care/
- **Supplier Code of Conduct** www.evonik.com/coc-supplier

Transparency

Evonik regards timely and equal public disclosure of information as a key basis of good corporate governance. The Investor Relations division provides extensive information in German and English on the company's website.

This includes our financial calendar, which provides a convenient overview of important dates.[1]

[1] www.evonik.com/investor-relations

Evonik's business performance is outlined principally in our quarterly reports, annual report and investor relations presentations. These are supplemented by information on Evonik's shares, the terms of bond issues and an overview of our credit ratings.[1]

Mandatory publications such as ad-hoc announcements, voting rights announcements and information on directors' dealings are also published immediately on our Investor Relations site.[2]

The offering also includes information on corporate strategy, and Evonik's corporate structure and organization.

In addition, the Investor Relations site provides information on Evonik's approach to corporate responsibility, and how the management and supervision of the company (corporate governance) are aligned to responsible and sustained value creation.[3]

2.3 Work of the Executive Board and Supervisory Board

The German Stock Corporation Act (AktG) forms the legal basis for the incorporation of Evonik Industries AG. Further details are set forth in the company's Articles of Incorporation and the provisions of the German Corporate Governance Code (see section 2.1 above).

Executive Board

The Executive Board of Evonik Industries AG is responsible for running the company in the company's interests with a view to sustained value creation, taking into account the interests of the shareholders, employees and other stakeholders. It works together trustfully with the other corporate governance bodies for the good of the company.

The Executive Board defines and updates the company's business objectives, its basic strategic focus, business policy and corporate structure. It is responsible for complying with statutory provisions and internal directives, and exerts its influence to ensure that they are observed by Group companies (compliance). Its tasks also include ensuring appropriate risk management and risk controlling within the company.

When making appointments to management functions in the company, the Executive Board applies the principles of diversity. In this it strives, in particular, to ensure adequate representation of women.

The Executive Board currently has five members. One member is appointed to chair the Executive Board. With the approval of the Supervisory Board, the Executive Board has adopted Rules of Procedure and a plan allocating areas of responsibility. The Chairman coordinates the work of the Executive Board, provides information for the Supervisory Board and maintains regular contact with the Chairman of the Supervisory Board. If the Chairman of the Executive Board is not available to perform these tasks, they are assumed by the Deputy Chairman. The members of the Executive Board are jointly responsible for the overall management of the company. They work together constructively and keep each other informed of the main activities and developments in their areas of responsibility. The Executive Board endeavors to take decisions unanimously, but may also adopt resolutions by majority vote. If an equal number of votes is cast, the Chairman has the casting vote.

Ensuring that the Supervisory Board receives sufficient information is the joint responsibility of the Executive Board and Supervisory Board. The Executive Board provides the Supervisory Board with the reports to be prepared in accordance with Section 90 of the German Stock Corporation Act (AktG) and the Rules of Procedure of the Supervisory Board. It gives the Supervisory Board timely, regular and full information on all matters that are relevant to the company and Group relating to strategy, planning, business development, risks, risk management and compliance. It outlines deviations between the planned and actual business performance and targets and the reasons therefor.

[1] www.evonik.com/investor-relations, News & Reports, Share and Bonds & Ratings. For details of the shareholder structure see "Evonik on the capital markets" on page 47 of this annual report.
[2] www.evonik.com/investor-relations, News & Reports/Ad-hoc announcements, Share/Voting rights, and Corporate Governance/Directors' Dealings
[3] www.evonik.com/investor-relations, Sustainable Investments (SRI) and Corporate Governance

Further, the Executive Board submits timely reports to the Supervisory Board on business matters and actions for which it is required by the Articles of Incorporation or the Supervisory Board's Rules of Procedure to obtain the approval for the Supervisory Board, including the annual budget for the Group. In addition, the Supervisory Board can make further business activities and measures dependent on its consent on a case-by-case basis.

Members of the Executive Board are required to act in the interests of the company. They may not pursue personal interests in their decisions, nor may they utilize business opportunities available to the company for themselves.

The members of the Executive Board are subject to a comprehensive non-compete obligation during their term of office. They may only assume additional posts, especially seats on the supervisory boards of companies that are not affiliated companies of Evonik Industries AG, with the consent of the Supervisory Board. Where such posts are assumed with the consent of the Supervisory Board, the Executive Board member shall accept the post as a personal office and shall ensure strict confidentiality and strict separation from his/her activities as a member of the company's Executive Board. Every member of the Executive Board is required to disclose any conflict of interests to the Chairman of the Supervisory Board without delay and to inform the other members of the Executive Board.

In fiscal 2016 there were no conflicts of interest relating to members of the Executive Board of Evonik Industries AG.

All transactions between the company or companies in the Evonik Group on the one hand and Executive Board members and related parties on the other must take place on terms that are customary in the sector. No such transactions took place in the reporting period.

The composition of the Executive Board and membership of supervisory boards and similar governance bodies are outlined on page 199.

Supervisory Board

The Supervisory Board advises and supervises the Executive Board. It appoints the members of the Executive Board and names one member as the Chairperson of the Executive Board. It also decides on the remuneration of the members of the Executive Board. The Executive Board is required to obtain the approval of the Supervisory Board on decisions of fundamental importance, which are defined in a separate list. These include:

- fundamental changes to the structure of the company and the Group
- setting the annual budget for the Group
- investments exceeding €25 million
- the assumption of loans and the issuance of bonds exceeding €300 million with a maturity of more than one year.

The Supervisory Board examines the company's annual financial statements, the Executive Board's proposal for the distribution of the profit, the consolidated financial statements for the Group and the combined management report. The Supervisory Board submits a written report on the outcome of the audit to the Shareholders' Meeting.

The Supervisory Board is subject to the German Codetermination Act (MitbestG) 1976. In accordance with these statutory provisions, the Supervisory Board comprises twenty members, ten representatives of the shareholders and ten representatives of the workforce. The representatives of the shareholders are elected by the Shareholders' Meeting on the basis of nominations put forward by the Supervisory Board as prepared by the Nomination Committee. The representatives of the employees are elected by the workforce and comprise seven employee representatives and three representatives of the industrial union.

The composition of the Supervisory Board should ensure that overall its members have the knowledge, ability and professional experience required to perform their duties. The members of the Supervisory Board may not undertake any duties as officers or advisors to the company's major competitors.

The Supervisory Board should not include more than two former members of the Executive Board. A former member of the Executive Board has been elected to the Supervisory Board. His term of office on the Executive Board ended more than two years before the date of his election to the Supervisory Board. All members of the Supervisory Board shall ensure that they have sufficient time to perform their tasks as a member of the Supervisory Board. Members of the Supervisory Board who are also members of the Executive Board of a publicly listed stock corporation should not hold more than three seats on the Supervisory Boards of listed companies outside their group of companies or Supervisory Boards of companies where comparable demands are made on them.

Members of the Supervisory Board must act in the interests of the company and not pursue personal interests in their decisions, nor may they utilize business opportunities available to the company for themselves. Members must disclose conflicts of interest to the Supervisory Board. Any member of the Supervisory Board who discloses a conflict of interest is excluded from resolutions at the meetings of the Supervisory Board dealing with matters relating to the conflict of interest. In its report to the Shareholders' Meeting the Supervisory Board discloses any conflicts of interest that have arisen and how they have been dealt with. Material conflicts of interest relating to a member of the Supervisory Board that are not by nature temporary should lead to termination of his/her term of office.

Consultancy, service and similar contracts between a member of the Supervisory Board and the company must be approved by the Supervisory Board. There were no contracts of this type in 2016, nor were there any conflicts of interest relating to members of the Supervisory Board of Evonik Industries AG. The Supervisory Board has adopted Rules of Procedure, which also govern the formation and tasks of the committees. At least two regular meetings of the Supervisory Board are held in each calendar half-year. In addition, meetings may be convened as required and the Supervisory Board may adopt resolutions outside meetings. If an equal number of votes is cast when taking a decision, and a second vote does not alter this situation, the Chairman of the Supervisory Board has the casting vote.

The Supervisory Board has set objectives for its composition, which are taken into account in the proposals put to the Shareholders' Meeting with regard to the regular election of members of the Supervisory Board and the subsequent election of a member of the Supervisory Board:

- At least two members should have sound knowledge and experience of regions which are of material importance for the Evonik Group's business, either through their background or through professional experience gained in an international context.
- At least two members should have special knowledge and experience of business administration and of finance/accounting or auditing.
- The members of the Supervisory Board as a whole should be familiar with the chemical sector.
- At least two members should have experience of managing or supervising a major company.
- The Supervisory Board should comprise at least 30 percent women and at least 30 percent men.
- The members of the Supervisory Board should not hold consulting or governance positions with customers, suppliers, creditors or other business partners that could lead to a conflict of interests. Deviations from this rule are permitted in legitimate individual cases.
- Members of the Supervisory Board should not normally be over 70 when they are elected.
- Members of the Supervisory Board should not normally hold office for more than three full terms within the meaning of Section 102, Paragraph 1 of the German Stock Corporation Act (AktG), i.e. normally 15 years. It is possible to deviate from this rule, in particular in the case of a member of the Supervisory Board who directly or indirectly holds at least 25 percent of the company's shares or belongs to the governance body of a shareholder that directly or indirectly holds at least 25 percent of the company's shares.
- At least five members of the Supervisory Board should be independent within the meaning of Section 5.4.2 of the German Corporate Governance Code.

These targets were revised in December 2016 to comply with the amended version of the German Stock Corporation Act (AktG), which stipulates that the Supervisory Board as a whole must be familiar with the sector in which the company operates.

The Supervisory Board currently comprises seven women and thirteen men. In accordance with its own targets and in compliance with statutory requirements, it therefore meets the minimum of 30 percent women and 30 percent men.

To ensure independence within the meaning of Section 5.4.2 of the German Corporate Governance Code, a Supervisory Board member should not have any personal or business relations with the company, its executive bodies, a controlling shareholder or an enterprise associated with the latter which may cause a substantial and not merely temporary conflict of interests. The Supervisory Board considers all current members to be independent specifically because, in its view, election as an employee representative does not conflict with such independence.

The present Supervisory Board satisfies the objectives for its composition.

In the past fiscal year, the Supervisory Board had the following committees:

The **Executive Committee** comprises the Chairman of the Supervisory Board, his deputy and two further members. It undertakes the regular business of the Supervisory Board and advises the Executive Board on fundamental issues relating to the ongoing strategic development of the company. Insofar as is permitted by law, it takes decisions in place of the full Supervisory Board on matters which cannot be deferred until the necessary resolution is passed by the full Supervisory Board without detrimental effects for the company. It also takes decisions on the use of authorized capital. It prepares meetings of the Supervisory Board and, in particular, personnel decisions and resolutions on the remuneration of the Executive Board, including the main contractual elements and the overall remuneration of individual members of the Executive Board. It is also responsible for concluding, amending and terminating employment contracts with the members of the Executive Board, where this does not involve altering or setting remuneration, and represents the company in other transactions of a legal nature with present and former members of the Executive Board and certain related parties.

The **Audit Committee** has six members and is familiar as a whole with the chemical sector. The members of the Audit Committee have specialist knowledge and experience in the application of accounting standards and internal control systems. Moreover, the Chairman is independent and is not a former member of the company's Executive Board. Acting on behalf of the Supervisory Board, the Audit Committee's principal tasks comprise supervising the accounting process, the efficacy of the internal control system, the risk management system and the internal audit system, the auditing of the financial statements, especially the independence of the auditor, any additional services provided by the auditor by prior agreement and retrospective review, and compliance and the related decisions. It can make proposals and recommendations geared to ensuring the integrity of the financial reporting process. It prepares the Supervisory Board's proposal to the Shareholders' Meeting on the choice of auditor, and takes decisions on the appointment of the auditor, the focal points of the audit and the agreement on audit fees. Further, it authorizes the Chairman of the Supervisory Board to issue the contract to the auditor. It assumes the specific duties regarding the statutory audit of public-interest entities assigned to the audit committee under applicable law, especially EU Regulation no. 537/2014.

The Audit Committee prepares the decision of the Supervisory Board on approval of the annual financial statements of Evonik Industries AG and the consolidated financial statements for the Group. For this purpose, it is required to conduct a preliminary examination of the annual financial statements of Evonik Industries AG, the consolidated financial statements for the Group, the management report for the Group and the Executive Board's proposal for the distribution of the profit. The Audit Committee also examines the auditor's report. The auditor of the financial statements must attend these meetings of the Audit Committee.

The Audit Committee reviews the interim reports, especially the half-yearly report, discusses the audit review report with the auditor—if an auditor is engaged to conduct a review—and decides whether to raise any objections. Further, it examines issues relating to corporate governance and reports to the Supervisory Board at least once a year on the status, effectiveness and scope to implement any improvements to corporate governance, and on new requirements and new developments in this field.

The **Finance and Investment Committee** has eight members. Its work covers aspects of corporate finance and investment planning. For example, it takes decisions on behalf of the Supervisory Board involving approval for the establishment, acquisition and divestment of businesses, capital measures at other Group companies and real estate transactions with a value of more than €25 million and up to €50 million. If the value of such measures or transactions exceeds the above limit, it prepares for a resolution by the Supervisory Board. The Finance and Investment Committee also takes decisions on the assumption of guarantees and sureties for credits exceeding €50 million and on investments in companies of more than €100 million.

The **Nomination Committee** comprises three Supervisory Board members elected as representatives of the shareholders. The task of the Nomination Committee is to prepare a proposal for the Supervisory Board on the candidates to be nominated to the Shareholders' Meeting for election to the Supervisory Board.

Finally, there is a **Mediation Committee** established in accordance with Section 27 Paragraph 3 of the German Codetermination Act 1976. This mandatory committee is composed of the Chairman and Deputy Chairman of the Supervisory Board, one shareholder representative and one employee representative. This committee puts forward proposals to the Supervisory Board on the appointment of members of the Executive Board if the necessary two-thirds majority of the Supervisory Board members is not achieved in the first vote.

It is only convened when necessary. All other committees meet regularly and may also hold additional meetings on specific issues in line with their responsibilities as set out in the Rules of Procedure for the Supervisory Board.

Further details of the work of the Supervisory Board and its committees in the past fiscal year can be found in the report of the Supervisory Board on page 28. The report of the Supervisory Board also outlines the composition of the various committees and the meetings attended by members of the Supervisory Board. For details of the composition of the Supervisory Board and membership of other supervisory and governance bodies see pages 197 and 198.

The Supervisory Board regularly examines the efficiency of its work. Further details can be found in the report of the Supervisory Board on page 28.

Directors' Dealings

In accordance with the EU market abuse regulation (Article 19 Paragraph 1 MAR), which came into force on July 3, 2016, members of the Executive Board and Supervisory Board and persons closely associated with them (including spouses, partners who are equivalent to a spouse, and dependent children) are required to notify Evonik Industries AG and the Federal Financial Supervisory Authority (BaFin) of any transactions in shares or debt instruments of Evonik Industries AG or derivatives or other financial instruments linked thereto. This applies to transactions undertaken within a calendar year after a total value of €5,000 has been reached. Until July 1, 2016, the duty of notification was governed by a similar provision in the German Securities Trading Act (Section 15a Paragraph 1 WpHG, old version). The transactions notified are disclosed on the website of Evonik Industries AG.

Total holdings of shares in Evonik Industries AG and related financial instruments by members of the Executive Board and Supervisory Board on the reporting date amounted to less than 1 percent of the issued shares.

2.4 Information on statutory diversity requirements

Since Evonik Industries AG is a publicly listed company and is also subject to German codetermination legislation, the diversity requirements set forth in the German Stock Corporation Act (AktG) and German Corporate Governance Code apply.

In view of this, the Supervisory Board has defined a target composition of at least 30 percent women and at least 30 percent men. In addition to thirteen men, the Supervisory Board of Evonik Industries AG currently includes seven women, three of whom represent the shareholders while four represent the workforce. The Supervisory Board therefore meets its target at present.

For the proportion of women on the Executive Board, the Supervisory Board has set a target of at least 20 percent. The deadline for achieving this is June 30, 2017. The Executive Board satisfies this requirement as it comprises one woman and four men. For the period from July 1, 2017 to June 30, 2022, the Supervisory Board has raised the target for the proportion of women on the Executive Board to 25 percent.

Further, the Executive Board of Evonik Industries AG set a target of 8.0 percent female managers at the first management level below the Executive Board and 18.8 percent women at the second management level, with both targets to be met by December 31, 2016. These targets have been achieved as women currently account for 16.7 percent of managers at the first management level and 19.5 percent of managers at the second management level.

For the period from January 1, 2017 to December 31, 2019, the Executive Board of Evonik Industries AG has set the target for female managers at both the first and the second management level below the Executive Board at 20 percent.

3. Shareholders and the Shareholders' Meeting

The shareholders exercise their rights at the Shareholders' Meeting. The Shareholders' Meeting elects the auditor and the shareholder representatives on the Supervisory Board and resolves on the ratification of the actions of members of the Executive Board and Supervisory Board, the distribution of the profit, capital transactions and amendments to the Articles of Incorporation. The shares are registered shares. Shareholders who are entered in the register of shareholders are eligible to attend the Shareholders' Meeting and exercise their voting rights, providing they register in good time to attend the meeting. The shareholders may exercise their voting rights at the Shareholders' Meeting in person, through a proxy of their choice or through a proxy appointed by the company. Each share entitles the holder to one vote.

4. Information on accounting and auditing of the financial statements

Evonik Industries AG prepares its annual financial statements in accordance with the German Commercial Code (HGB) and the German Stock Corporation Act (AktG). The consolidated financial statements are prepared on the basis of the International Financial Reporting Standards (IFRS), as adopted for use in the EU. In addition, the applicable statutory provisions of Section 315 a Paragraph 1 of the German Commercial Code (HGB) are taken into account.

As proposed by the Supervisory Board, the Annual Shareholders' Meeting on May 18, 2016 elected PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft (PwC), Düsseldorf, as auditor for the annual financial statements of Evonik Industries AG, the consolidated financial statements of the Evonik Group, and the combined management report for fiscal 2016. The Supervisory Board previously ascertained the independence of the auditor. The auditors that sign the audit of the annual financial statements of Evonik Industries AG and the consolidated financial statements of the Evonik Group are Mr. Lutz Granderath (since fiscal 2012) and Ms. Antje Schlotter (since fiscal 2014). In addition to the accounting, the audit covered the system to identify emerging risks and the accounting-related internal control system. Further, PwC conducted a review of the interim financial statements for the first half of 2016 and the quarterly financial statements as of September 30, 2016. These reviews were also based on the resolution adopted on May 18, 2016.

5. Risk management and internal control system (ICS)

Risk management in the Evonik Group, including the ICS relating to the accounting process, is described in the opportunity and risk report, which forms part of the management report. Details can be found on page 93.

6. Remuneration

The principles of the remuneration system and the remuneration of the members of the Executive Board and the Supervisory Board are outlined in the remuneration report, which forms part of the management report. Details can be found on page 106.

Evonik on the capital markets

- Further diversification of shareholder structure and rise in trading volume
- Continuation of the attractive dividend policy
- Inclusion in important sustainability indices

Performance of the share

Evonik shares were unable to escape the downward trend in stock market prices that started at the beginning of the year and the share price softened from €30.62 at the start of the year, in parallel with the MDAX and DJ STOXX 600 Chemicals^{SM} benchmark indices.

At the start of March Evonik published its outlook for 2016. In particular, given the normalization of prices for feed additives, Evonik expected earnings to be below the exceptionally high prior-year level. The share price initially fell after this announcement but rebounded towards the benchmark indices during the remainder of the first half. It also rose in response to the announcement of the acquisition of the Air Products specialty additives business on May 6. At the end of June the markets came under considerable pressure in the wake of the unexpected outcome of the referendum in the UK on leaving the European Union. Shares in Evonik weakened with the market as a whole. Following publication of better-than-expected second-quarter results on August 5, accompanied by specification of the outlook, the share price picked up. At the start of October 2016, shares in Evonik rose to a high for the year of €30.92.

This was followed by a weaker performance ahead of the financial reporting on the third quarter, especially in view of expectations of a continued downward price trend on the market for feed additives in 2017.

Following announcement of the acquisition of silica producer Huber Silica in December the share price recovered further. Shares in Evonik ended the year at €28.38 on December 30, down 7.3 percent compared with the start of the year. The DJ STOXX 600 Chemicals^{SM} rose 3.9 percent over the same period, while the more broadly based MDAX rose 6.8 percent.

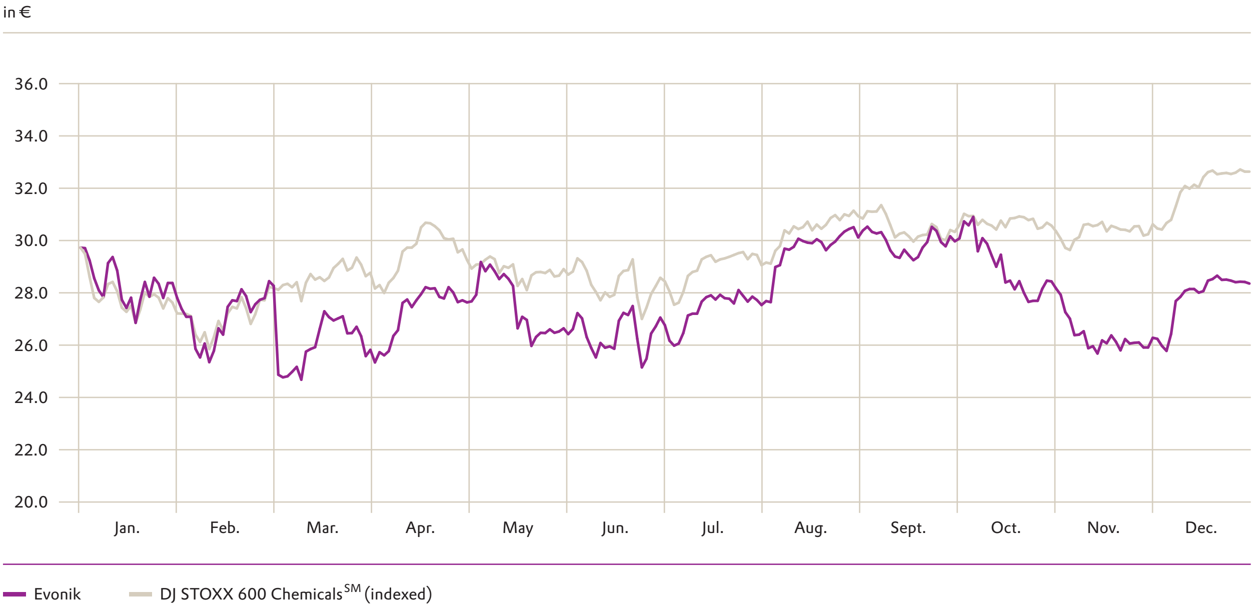
Further diversification of shareholder structure

RAG-Stiftung remains Evonik's largest shareholder with a stake of around 68 percent of the capital stock. The complete exit by CVC Capital Partners, formerly the company's second biggest shareholder, led to further diversification of the shareholder structure in 2016. The free float is around 32 percent.

Considerable rise in trading volume

One consequence of the broader shareholder base was a considerable rise in average daily trading to 837,000 shares or €23.3 million (2015: 648,000 shares or €20.9 million). Evonik therefore now ranks fifth in the MDAX. Market capitalization was €13.23 billion on December 31, 2016. Based on the market capitalization of the free float, at year-end the share ranked fourteenth in the MDAX.

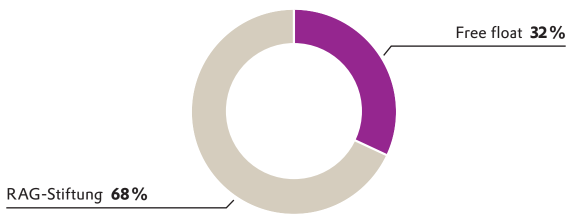
Performance of Evonik shares January 1 – December 31, 2016



Annual Shareholders' Meeting resolves to raise the dividend to €1.15 per share

Evonik has a long-term dividend policy aligned to continuity and reliability. At the Annual Shareholders' Meeting on May 18, 2016, the shareholders adopted the proposal put forward by the Executive Board and Supervisory Board to increase the dividend by 15 percent to €1.15 per share in view of the substantial improvement in earnings in 2015. The total dividend payment of €536 million was made on May 19, 2016. The dividend yield of around 4.1 percent[1] positions Evonik among the leaders in the chemical industry.

Shareholder structure



Intensive dialogue with the capital markets

We continued to extend our intensive dialogue with equity and bond investors in 2016. The Executive Board and the Investor Relations team outlined Evonik's business and the underlying growth strategy at 21 conferences and 15 roadshows. They also talked about the latest developments and drivers. Most of the roadshows and conferences were held in Europe, for example in London, Frankfurt, Paris, Dublin, Edinburgh, Copenhagen, and Zurich. Trips were also made to New York and Boston, the most important financial centers in North America.

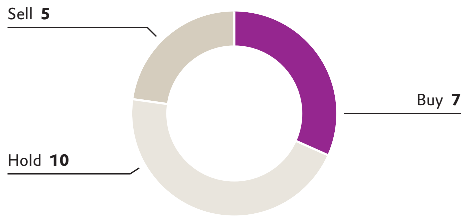
Alongside conventional capital market communication, we offer investors the opportunity to participate in field trips to our production sites to gain a direct insight into our products and how they are produced and marketed. Last year, we organized five field trips. Overall, we registered around 700 contacts with investors during the year.

[1] Year-end 2016.

Analysts' evaluations of Evonik

At year-end 2016 Evonik was covered by 22 analysts. Seven of them rated the share as a buy, five as a sell, and ten issued neutral recommendations. Their price targets ranged from €21 to €34, giving a median of €28.

Analysts' ratings



Moody's raises rating to Baa1

Immediately after the announcement of the acquisition of the Air Products specialty additives business, Moody's raised Evonik's rating from Baa2 with a positive outlook to Baa1 with a stable outlook. This was attributable to the expected diversification of Evonik's business profile, confirming the strategic rationale of the acquisition from the viewpoint of the rating agencies. Together with a BBB+ rating with a stable outlook from Standard & Poor's, Evonik therefore has a solid investment-grade credit rating.

Successful issuance of bonds totaling €1.9 billion

To finance the acquisition of the Air Products specialty additives business, in September 2016 Evonik issued three bonds with a total value of €1.9 billion. The bonds have a tenor of between 4.5 and 12 years and coupons of between 0 and 0.75 percent a year. The bonds were strongly oversubscribed and attracted considerable attention from a wide range of institutional investors. Evonik benefited from its solid investment-grade rating and the favorable market conditions for corporate bonds.

Inclusion in important sustainability indices

Since Evonik's free float was higher than in 2015, the company was invited to participate in the Dow Jones Sustainability Index (DJSI) World for the first time in 2016. Evonik immediately gained a place in both the DJSI World and the DJSI Europe, with particularly high scores for all environmentally related criteria.

Key data

	Jan. 1 – Dec. 31, 2016
Highest share price[a] in €	30.92
Lowest share price[a] in €	24.71
Average price[a] in €	27.77
Closing price[a] on December 31, 2016 in €	28.38
No. of shares	466,000,000
Market capitalization[a] on December 31, 2016 in € billion	13.23
Average daily trading volume[a] (No. of shares)	approx. 837,600

[a] Xetra trading.

Basic data on Evonik stock

WKN	EVNK01
ISIN	DE000EVNK013
Ticker symbol	EVK
Reuters (Xetra trading)	EVKn.DE
Bloomberg (Xetra trading)	EVK GY
Trading segments	Regulated market (Prime Standard), Frankfurt am Main
Indices	MDAX, MSCI World, DJ STOXX® Europe 600, Dow Jones Sustainability Index Europe, Dow Jones Sustainability Index World, FTSE4Good Global, STOXX® Global ESG Leaders

At the Annual Shareholders' Meeting on May 18, 2016, Dr. Klaus Engel, Chairman of the Executive Board, reported on the previous fiscal year, and private and institutional investors had an opportunity for direct discussion with members of Evonik's management.

Investor Relations

For further information on our investor relations activities, visit our website at **www.evonik.com/investor-relations.** The financial calendar on our website provides a convenient overview of important dates. The website also contains key facts and figures, especially financial and segment data and details of the company's structure and organization. This is supplemented by information on Evonik shares, the terms of bond issues and an overview of our credit ratings. Current presentations, analysts' estimates and reports on our business performance are also available.

Contact: PHONE +49 201 177-3146 | investor-relations@evonik.com

MANAGEMENT REPORT

Combined management report for 2016
This management report is a combined management report for the Evonik Group and Evonik Industries AG. Given the influence of the segments, statements relating to the development of the segments in the Evonik Group also apply for Evonik Industries AG. The consolidated financial statements for the Evonik Group have been prepared in accordance with the International Financial Reporting Standards (IFRS) and the financial statements of Evonik Industries AG have been prepared in accordance with the provisions of the German Commercial Code (HGB) and the German Stock Corporation Act (AktG).

A good performance in 2016—Acquisitions strengthen growth segments

1. Basic information on the Evonik Group

1.1 Business model

Strong market positions, a clear culture of innovation, sustainable business activities

Evonik is one of the world's leading specialty chemicals companies. We concentrate on attractive growth markets—especially health, nutrition, and resource efficiency. Our strengths include the balanced spectrum of our business activities, end-markets and regions. Around 80 percent of sales come from market-leading positions[1], which we are systematically expanding. Our strong competitive position is based on integrated technology platforms, innovative strength and working closely with our customers.

Our specialty chemicals products make an indispensable contribution to the benefits of our customers' products, which generate their success in global competition. Close cooperation with our customers enables us to build up a deep knowledge of their business, so we can offer products tailored to their specifications, and extensive technical service. Our technology centers and customer competence centers play an important role in this around the world. We also have a focus on our customers' customers.

Market-oriented research and development is a key driver of profitable growth. This is based on our strong innovation culture, which is rooted in our innovation management and management development.

Highly trained employees are a key success factor. They drive forward the company on a daily basis through their hard work and identification. We have therefore developed a wide range of activities to gain and develop talented and qualified employees and to position Evonik as a preferred employer in order to retain them.

We are convinced that sustainable and responsible business activities are vital for the future of our company. Evonik therefore accepts responsibility worldwide—for its business, its employees and society.

A decentralized corporate structure

Our specialty chemicals operations are divided into three chemical manufacturing segments, which operate close to their markets and customers and have a high degree of entrepreneurial independence.

The Nutrition & Care segment produces specialty chemicals, principally for use in consumer goods for daily needs, and in animal nutrition and healthcare products.

The Resource Efficiency segment supplies high-performance materials for environment-friendly and energy-efficient system solutions for the automotive, paints, coatings, adhesives and construction industries and many other sectors.

The heart of the Performance Materials segment is the production of polymer materials and intermediates, mainly for the rubber, plastics and agriculture industries.

The Services segment offers services for the chemical segments and external customers at our sites and supports the chemicals businesses and the management holding company by providing standardized Group-wide administrative services.

Corporate structure

	Evonik			
Segments	Nutrition & Care	Resource Efficiency	Performance Materials	Services

[1] We define these as ranking 1st, 2nd or 3rd in the relevant markets.

The Nutrition & Care and Resource Efficiency segments operate principally in attractive markets with above-average growth rates. They both offer customers customized, innovation-driven solutions and the aim is for them to achieve above-average, profitable growth through innovations, investments and acquisitions.

The Performance Materials segment is characterized by processes that make intensive use of energy and raw materials. It therefore concentrates on integrated, cost-optimized technology platforms, efficient workflows, and economies of scale. Our strategic goal for this segment is to contribute earnings to finance the growth of the Evonik Group. In the future, investments and, where appropriate, alliances will concentrate on securing and extending our good market positions.

Integrated technology platforms are a competitive advantage

Our products are manufactured using highly developed technologies that we are constantly refining. In many cases, Evonik has integrated production complexes where it produces key precursors for its operations in neighboring production facilities. In this way we offer our customers maximum reliability of supply. At the same time, integrated world-scale production facilities combined with technologically demanding production processes act as high entry barriers.

Further advantages are leveraged by using our integrated technology platforms for several businesses. That generates economies of scale and optimizes the use of product streams because by-products from one production facility can be used as starting materials for other products. This results in optimum utilization of capacity and resources and thus high added value. Moreover, the operating units can share the site energy supply and infrastructure cost-effectively.

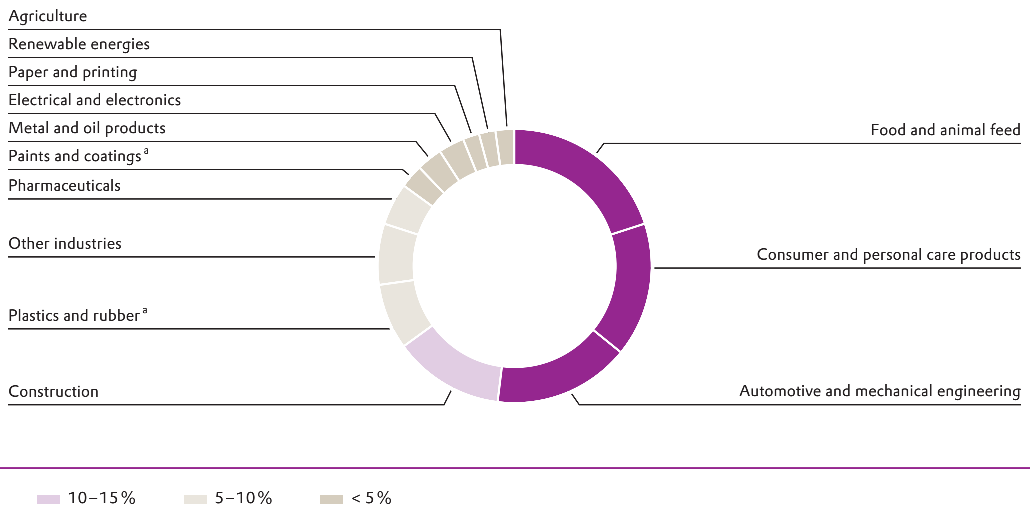
Broadly diversified end-markets

Most of our customers are industrial companies that use our products for further processing. The range of markets in which they operate is diverse and balanced. None of the end-markets that we supply accounts for more than 20 percent of our sales.

Global production

Evonik has a presence in more than 100 countries and 81 percent of sales are generated outside Germany. We have production facilities in 25 countries on five continents and are therefore close to our markets and our customers. Our largest production sites—Marl, Wesseling and Rheinfelden (Germany), Antwerp (Belgium), Mobile (Alabama, USA), Shanghai (China) and Singapore—have integrated technology platforms used by various units.

Evonik's end-markets



[a] Where not directly assigned to other end-customer industries.

1.2 Principles and objectives

Profitable growth, enhanced efficiency, values

A sustained increase in the value of the company is our overriding goal and the basis for Evonik's strategic alignment.

Our strategy aims for profitable growth by
- further increasing our leading market positions
- concentrating on attractive growth businesses and emerging markets
- gaining access to new growth areas through innovation and external growth, and
- continuously improving our cost and technology position.

As **growth drivers** for our business we have identified the megatrends health, nutrition, resource efficiency and globalization. We take a flexible and disciplined approach to extending our leading market positions around the world. All investment projects are regularly reviewed for changes in the market situation.

Innovations are the driving force of future growth. Through them, we gain access to new products and applications, enter attractive future markets and strengthen our market and technology leadership.

To raise scope for growth and innovations, we are continuously working to improve our **cost position.**

The cornerstones of our corporate culture are our **corporate values** "sparing no effort," "courage to innovate" and "responsible action," which represent the balance between economically successful, ecologically responsible and socially appropriate behavior.

Our sustainability strategy takes up the growth markets identified in our corporate strategy and defines areas of action geared to balanced management of economic, ecological and social factors. We are keenly committed to expanding the contribution made by our innovative solutions to **sustainable development.**

1.3 Business management systems

Most important financial key performance indicators

Financial management of Evonik is based on a consistent system of value-oriented indicators. These are used to assess the business performance of the operational units and the Group. Through systematic alignment to these indicators, Evonik endeavors to create value by raising profitability and ensuring profitable growth.

We use **adjusted EBITDA** (i.e. EBITDA after factoring out special items) as a financial performance indicator. To track the attainment of targets, adjusted EBITDA is broken down to the level of the operating units. Adjusted EBITDA and the corresponding relative indicator, the adjusted EBITDA margin, show the operating performance of an entity irrespective of the structure of its assets and its investment profile. They therefore provide a key basis for internal and external comparison of the cost structure of business operations.

The return on capital employed **(ROCE)** is used as a further indicator of value-driven management of the company. The calculation starts from adjusted EBIT in relation to average capital employed. Comparison with the cost of capital, which shows the risk-adjusted return expectations of our investors, indicates relative value creation. This is calculated using a weighted average cost of capital, which reflects the return expectations of both shareholders, derived from the capital asset pricing model, and providers of debt capital.

The special items that are factored out when calculating adjusted EBITDA and adjusted EBIT include restructuring, impairment losses/reversals of impairment losses, income and expenses in connection with the purchase/disposal of investments in companies, and other income and expense items that, due to their nature or amount, do not reflect the typical operating business. We consider that the adjusted earnings figures are more suitable than unadjusted data for comparing the performance of operating units over several periods.

We also use **free cash flow** as an operational performance indicator. This is calculated from the cash flow from operating activities, continuing operations, less outflows for capital expenditures on intangible assets, property, plant and equipment. The free cash flow is the amount that can be used for dividends, acquisitions and to repay borrowing. It therefore shows the company's internal financing capacity.

Most important non-financial key performance indicators

Evonik also uses a wide variety of non-financial performance indicators. For example, our annual sustainability report[1] provides information on ecological and societal issues to supplement our economic reporting.

Traditionally, we accord special significance to **safety,** which is regarded as a holistic management task that has to be lived at all management levels. Our guiding principles on safety are binding for staff at all levels and were reinforced in 2015 by a global safety culture initiative. In accordance with corporate policy, all units at Evonik have an occupational safety target. In addition, all production units have a plant safety target. The relevant indicators are accident frequency and incident frequency.[2]

To protect the environment we specifically aim to reduce **emissions of greenhouse gases,** not just from our production but also along the entire value chain. We therefore constantly strive for a further improvement in our production processes. That ensures more efficient use of resources and minimizes environmental impact. We regard specific greenhouse gas emissions as a particularly important environmental indicator, which we plan to use as a key non-financial performance indicator following the integration of the Air Products specialty additives business.

2. Business review

2.1 Overall assessment of the economic situation

Strategically, we have strengthened our Nutrition & Care and Resource Efficiency segments, providing an even better basis for profitable growth in the future. The acquisition[3] of the specialty additives business of Air Products and Chemicals Inc., Allentown (Pennsylvania, USA) strengthens our leading position on the attractive growth market for specialty additives. We anticipate a strong rise in demand for specialty additives and expect the market to grow far faster than overall demand for chemical products. The planned acquisition of the silica business of J. M. Huber Corporation, Atlanta (Georgia, USA) will further strengthen the Resource Efficiency segment. The aims of this acquisition are to extend our silica business, gain new customers, and reinforce our presence in important growth markets. The market for silica is posting steady, above-average growth. Both businesses have business models that are similar to Evonik's, and they are an ideal fit with our segments.

Operationally, our business performed well although the overall economic environment remained challenging. Volume growth was good thanks to high global demand for our products. However, selling prices declined considerably, partly because lower raw material prices were passed on to customers. Overall, lower selling prices reduced sales by 6 percent year-on-year to €12,732 million in 2016. **Adjusted EBITDA** was €2,165 million, down 12 percent from the high prior-year figure. The reduction was attributable to the Nutrition & Care segment, where selling prices dropped back from the previous year's high level. The Resource Efficiency segment developed very satisfactorily and posted a perceptible increase in earnings. The Performance Materials segment reported significantly higher earnings.

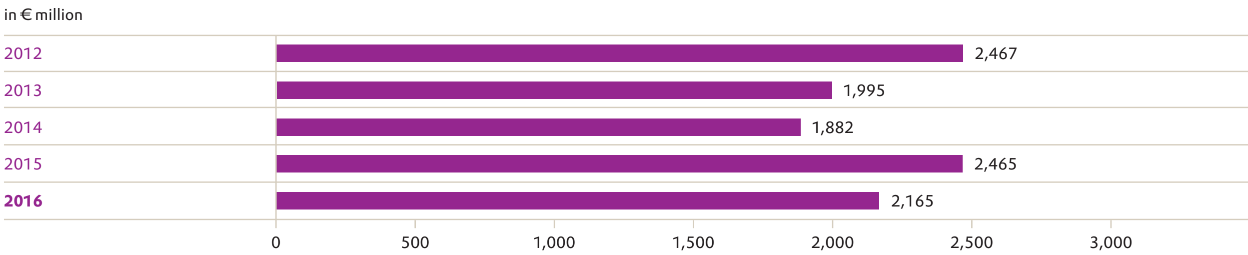
The adjusted EBITDA margin is good at 17.0 percent, and the ROCE of 14.0 percent represents an attractive return.

[1] This report is based on G4, the currently valid guidelines issued by the Global Reporting Initiative (GRI).
[2] See sections on principles and objectives, and sustainability.
[3] See section on major events.

Net income fell 15 percent to €844 million, while adjusted net income dropped 18 percent to €930 million. To enable our shareholders to participate in the good earnings situation, at the Annual Shareholders' Meeting the Executive Board and Supervisory Board will once again be proposing a dividend of €1.15 per share.

Our **financial profile** is still very good: Evonik has a solid investment grade rating. Moody's raised its rating to Baa1 in May 2016 when we announced the acquisition of the Air Products specialty additives business (Standard & Poor's: unchanged at BBB+). The cash flow from operating activities remained strong at €1,758 million. After deduction of outflows for capital expenditures, the free cash flow was high at €810 million. We again had net financial assets at year-end. In September 2016 we secured the financing for the acquisition of the Air Products specialty additives business by issuing three bonds with an average coupon of 0.35 percent. Following payment of the purchase price and closure of the transaction on January 3, 2017, we registered net financial debt.

Development of adjusted EBITDA in the Evonik Group



2.2 Economic background

Weaker global economic momentum

Global economic conditions were slightly weaker than expected in 2016. We estimate that global economic growth was around 2.3 percent, which was lower than in the previous year (2.6 percent). At the start of 2016, growth of 2.5 percent had still been anticipated.

The main reasons for this were slightly softer growth in North America and the slowdown of economic activity in the emerging markets.

In Europe, the economy picked up in 2016 thanks to the European Central Bank's expansionary monetary policy, the depreciation of the euro, and robust consumer demand. At the same time, risks re-emerged in the European banking system. The uncertainty has increased since the UK voted against remaining a member of the European Union in June 2016, although the economic consequences in the following months were initially lower than originally assumed. In Germany, consumer spending, in particular, was boosted by the good employment situation and rising real wages, while industrial output only posted modest growth.

Reasons for the slowdown in growth in the USA, which was mainly evident in the second and third quarters, were weak industrial output, low capital expenditures, and a reduction in inventories. In addition, exports were held back by the strength of the US dollar. By contrast, consumer spending benefited from the particularly favorable labor market situation and provided reliable support for the economy. In light of the weaker growth, the Federal Reserve only raised its key interest rates once in 2016, although the market had expected a total of four rate rises at the start of the year.

The lower growth in the emerging markets was driven by a number of factors: slower growth in investment spending, declining industrial output and a deterioration in the financial situation as a result of capital outflows and the depreciation of currencies. Although raw material prices recovered slightly during the year, commodity-exporting countries were still held back by overcapacity. The Latin American economy remained in recession despite considerable regional differences.

In China, the slowdown in growth caused by the transition to a new economic model with a greater focus on the domestic market continued. The stabilization of economic growth in China was mainly due to expansionary fiscal and monetary policy.

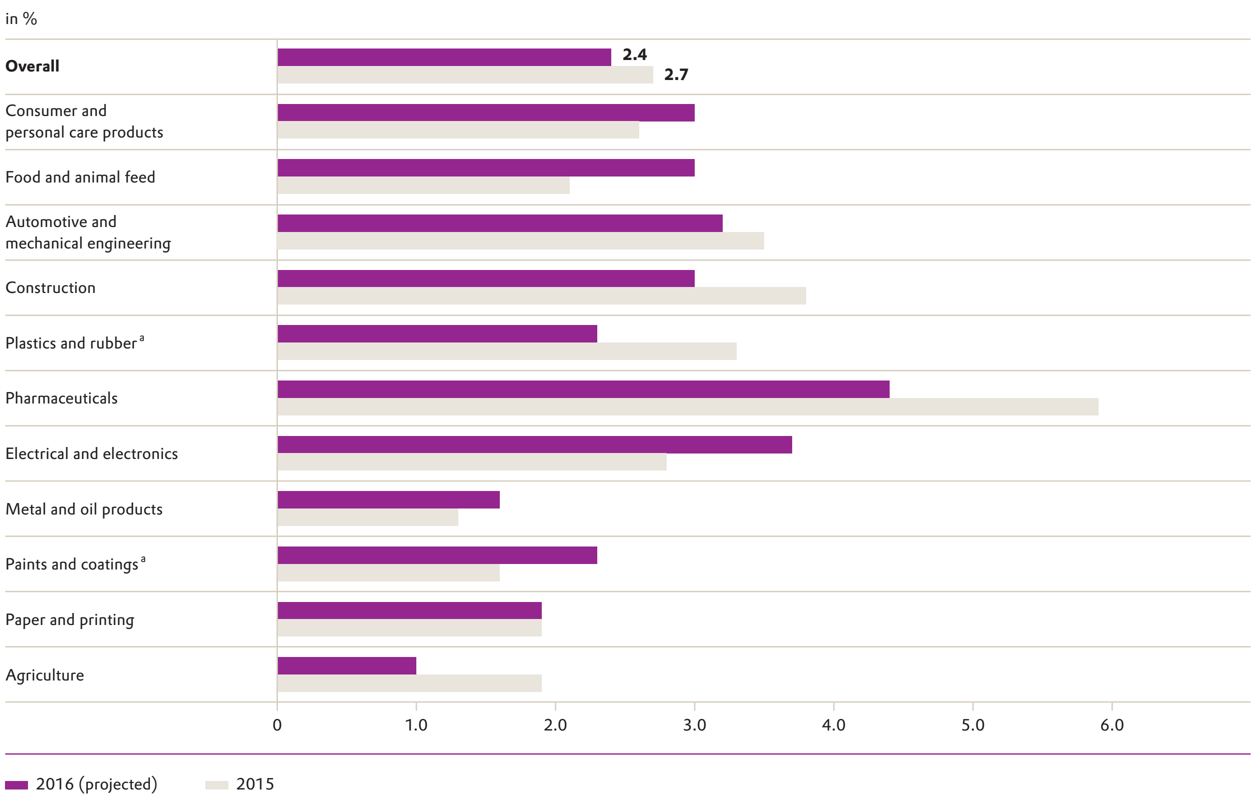
Development of GDP 2015/2016

Weaker development of end-customer industries

Worldwide, the development of Evonik's **end-customer industries** differed by region and by sector in 2016. We anticipate that overall industrial growth was slightly lower than in the previous year.

Output of consumer and care products increased year-on-year in Europe and, above all, in Asia, thanks to rising demand from the emerging middle class. Demand for food and animal feed continued to develop positively in all regions.

Development of Evonik's end-customer industries 2015/2016



[a] Where not directly assigned to other end-customer industries.

Growth rates in the automotive and mechanical engineering industries slipped slightly compared with the previous year, but remained at a high level. In the construction sector, growth momentum weakened in the USA, Latin America and some parts of Asia, mainly because investment was more sluggish than in 2015, but picked up in Europe. Overall, the general industrial trend in Europe and North America remained soft, with output only rising slightly.

The drop in crude oil prices, especially at the start of 2016, led to a further year-on-year reduction in Evonik's average raw material prices.

The average annual exchange rate for the euro against Evonik's most important currency—the US dollar—was US$ 1.10 and thus basically unchanged from the previous year's average (US$ 1.11).

2.3 Major events

On May 6, 2016 Evonik signed an agreement to purchase the **specialty additives business** of Air Products for US$ 3.8 billion (approximately €3.5 billion). The acquisition was closed on January 3, 2017 following the approval of the relevant antitrust authorities. The two businesses are an ideal fit: Evonik and the Air Products specialty additives business target the same customers in their core markets, but with different and complementary products. The regional fit is also good: While the Air Products business is concentrated on North America and Asia, Evonik is mainly active in Europe. In addition, the acquisition strengthens our innovative capability, especially in specialty additives. Like Evonik, its business model is characterized by close collaboration with customers on research and development.

The new business will be integrated into our Nutrition & Care and Resource Efficiency growth segments.

The acquisition resulted in project expenses and financing and currency hedging costs totaling €67 million in 2016.

On December 9, 2016 Evonik signed an agreement to acquire Huber's global **silica business** for US$ 630 million. In this way, we aim to strengthen our position in this profitable, low-cyclical business, especially in North America and Asia. The two companies' product ranges are complementary. So far, Evonik has mainly focused on industrial applications such as the tire and coating industries. Huber has a stronger focus on the consumer goods sector, especially the dental market. With its main activities in the US, Chinese and Indian markets, the business is also a good fit with Evonik geographically. We intend to integrate the business we are acquiring into our Resource Efficiency growth segment.

The transaction is contingent upon the approval of the antitrust authorities but is expected to be completed in the second half of 2017. In connection with this proposed acquisition, we incurred total project expenses and currency hedging costs of €9 million in 2016.

2.4 Business conditions and performance

Pleasing volume trend

Driven by good demand for our products worldwide, all segments registered pleasing volume growth. However, there was a substantial reduction in selling prices, partly because lower raw material prices were passed on to customers. Overall, **sales** declined 6 percent to €12,732 million.

Change in sales 2016 versus 2015

in %	
Volumes	3
Prices	−8
Organic sales growth	**−5**
Exchange rates	–
Other effects	−1
Total	**−6**

Adjusted EBITDA at a good level

Adjusted EBITDA was €2,165 million, down 12 percent from the high prior-year figure. The main reasons for this decline were lower selling prices, while higher volumes and lower raw material costs had a positive effect. The adjusted EBITDA margin was good at 17.0 percent (2015: 18.2 percent).

Adjusted EBITDA by segment

in € million	2016	2015	Change in %
Nutrition & Care	1,006	1,435	−30
Resource Efficiency	977	896	9
Performance Materials	371	309	20
Services	151	159	−5
Corporate, other operations, consolidation	−340	−334	−2
Evonik	**2,165**	**2,465**	**−12**

The Nutrition & Care segment was affected principally by a considerable reduction in selling prices, and adjusted EBITDA was well below the exceptionally strong prior-year level. The Resource Efficiency segment registered a further rise in its adjusted EBITDA thanks to an increase in volumes, high capacity utilization, and lower raw material costs. In the Performance Materials segment adjusted EBITDA improved considerably, driven by higher volumes, lower raw material costs and the initial success of the efficiency enhancement programs. The Services segment posted slightly lower adjusted EBITDA than in the previous year. The adjusted EBITDA reported by Corporate, other operations, including consolidation, was around the prior-year level, and includes, among others, expenses for the Corporate Center and strategic research.

Sales and reconciliation from adjusted EBITDA to net income

in € million	2016	2015	Change in %
Sales	**12,732**	**13,507**	**–6**
Adjusted EBITDA	**2,165**	**2,465**	**–12**
Depreciation and amortization	–717	–713	
Adjusted EBIT	**1,448**	**1,752**	**–17**
Adjustments	–150	–88	
thereof attributable to			
Restructuring	*1*	*–65*	
Impairment losses/reversals of impairment losses	*–48*	*–63*	
Acquisition/divestment of shareholdings	*–46*	*142*	
Other	*–57*	*–102*	
Income before financial result and income taxes (EBIT)	**1,298**	**1,664**	**–22**
Financial result	–174	–223	
Income before income taxes, continuing operations	**1,124**	**1,441**	**–22**
Income taxes	–362	–422	
Income after taxes, continuing operations	**762**	**1,019**	**–25**
Income after taxes, discontinued operations	96	–17	
Income after taxes	**858**	**1,002**	**–14**
thereof attributable to non-controlling interests	14	11	
Net income	**844**	**991**	**–15**
Earnings per share	**1.81**	**2.13**	

The **adjustments** totaled –€150 million. Within the restructuring category, expenses were mainly incurred for optimization of the portfolio structure in the Performance Materials segment, while income came predominantly from the reversal of provisions in connection with the streamlining of administrative structures. The impairment losses/reversals of impairment losses totaling –€48 million mainly relate to an equity investment in the Nutrition & Care segment and to early termination of a project in the Performance Materials segment. Project expenses in connection with the acquisition of the Air Products specialty additives business and the silica business of Huber totaled €46 million. Other mainly comprises expenses in connection with a foreign investment, restructuring of our logistics activities, and an increase in provisions for the partial early retirement program to comply with IAS 19. The prior-year adjustments of –€88 million contained restructuring expenses, impairment losses and, above all, income from the divestment of the stake in Vivawest.

The **financial result** improved considerably to –€174 million. This amount contains special items totaling –€35 million, including currency hedging and financing costs of €30 million ahead of the acquisition of the Air Products specialty additives business and the planned acquisition of Huber's silica business. It also includes interest expense of €5 million in connection with the establishment of provisions. In the prior year, special items amounted to –€44 million, mainly interest expense in connection with the establishment of provisions. **Income before income taxes, continuing operations** dropped 22 percent to €1,124 million. The income tax rate was 32 percent, which was slightly above the expected Group tax rate, mainly due to non-tax-deductible expenses. After factoring out taxes on special items, the income tax rate was 30 percent.

The **income after taxes, discontinued operations** of €96 million principally comprises the reversal of a provision relating to the former Energy Business Area, as it was no longer required. The prior-year figure of –€17 million was mainly attributable to the remaining lithium-ion activities, which were divested in April 2015.

The Evonik Group's **net income** was €844 million, 15 percent below the high prior-year level, which contained the proceeds from the divestment of the stake in Vivawest.

We use **adjusted net income** to assess the earnings power of the continuing operations, especially on a long-term view, and to forecast future development. The calculation starts from EBITDA after adjustment for special items[1]. The financial result is then adjusted for income and expenses in connection with the acquisition/divestment of shareholdings and other income and expense items that, by nature or amount, do not form part of typical current financing activities. Further, we deduct amortization of intangible assets, as they mainly result from acquisitions, and adjust income tax for taxes on special items.

Overall, the adjusted net income of the Evonik Group dropped 18 percent to €930 million in 2016. **Adjusted earnings per share** therefore decreased from €2.42 to €1.99.

Reconciliation to adjusted net income

in € million	2016	2015	Change in %
Adjusted EBITDA	**2,165**	**2,465**	**–12**
Depreciation and amortization	–717	–713	
Adjusted EBIT	**1,448**	**1,752**	**–17**
Adjusted financial result	–139	–179	
Amortization and impairment losses on intangible assets	47	39	
Adjusted income before income taxes[a]	**1,356**	**1,612**	**–16**
Adjusted income taxes	–412	–473	
Adjusted income after taxes[a]	**944**	**1,139**	**–17**
thereof adjusted income attributable to non-controlling interests	14	11	
Adjusted net income[a]	**930**	**1,128**	**–18**
Adjusted earnings per share[a] in €	**1.99**	**2.42**	

[a] Continuing operations.

Efficiency enhancement programs achieve their goals

We work continuously to improve our cost position in order to enhance our competitiveness. A significant contribution to this improvement in efficiency came from our On Track 2.0 and Administration Excellence optimization programs. The On Track 2.0 program to reduce production costs considerably overfulfilled its target of cumulative savings of €500 million between 2012 and 2016: The measures realized totaled €600 million and the program was concluded on schedule at year-end 2016.

Since 2013, our Administration Excellence program has focused on optimizing our administrative processes. In 2016, measures were defined for the full target potential of €230 million and handed over to the organizational units for implementation. By the end of 2016, measures under this program totaling some €155 million had been realized.

Work on further efficiency improvements in production and administration will be driven forward through the established continuous improvements process.

Efficient and effective procurement

Reliable supply, gaining access to new procurement markets, and ongoing optimization of material costs are key tasks for our procurement function.

2016 was dominated by relatively volatile procurement markets and the low oil price. Once again, there were numerous unforeseeable production outages in the supply chain as a result of force majeure. We essentially managed to secure supply to our sites through close cooperation with the suppliers affected and by drawing on alternative suppliers.

To optimize material costs, Procurement is pursuing a total-cost-of-ownership (TOC) approach, taking cross-unit aspects into account. This enables us to leverage savings potential along the value chain. Close collaboration with the business entities is a key success factor for efficient and effective procurement processes.

The efficiency of the procurement organization was further optimized in 2016. We have made enormous progress in the automation and harmonization of global procurement processes, especially on the operational side, leading to a substantial increase in the automation rate in all regions.

[1] See the section on business management systems.

Together with the accounts payable department, scope to raise the efficiency of the entire purchase-to-pay process from ordering through to payment has been identified, along with the necessary measures, and initial improvements have been achieved. We will be driving forward the implementation of further measures in 2017, supported by common targets and performance indicators for procurement and accounts payable.

As well as participating in procurement alliances with other companies and validating new suppliers, we are working intensively to extend strategic relationships with suppliers. Here we are looking for additional opportunities to reduce risk, optimize costs and enhance cooperation and innovation with the suppliers that are currently of the greatest strategic importance. We are aware of our responsibility within the supply chain. Issues such as safety, health, environmental protection, corporate responsibility and quality play an integral part in our procurement strategy. These sustainability aspects are also supported by standardized global assessments through the Together for Sustainability (TfS) sector initiative, which was co-founded by Evonik. Evonik's principal suppliers and the majority of suppliers of critical raw materials have already taken part in these assessments, which are evaluated by an impartial sustainability rating company.

In 2016 Evonik spent around €7.6 billion on raw materials and supplies, technical goods, services, energy and other operating supplies. Raw materials and supplies make up around 59 percent of procurement volume. About €3 billion is spent on petrochemical feedstocks, which account for 65 percent of raw materials.

Using renewable resources remains very important to Evonik. In 2016, around 9 percent of raw materials were from renewable resources. The main applications for these raw materials are amino acids and starting products for the cosmetics industry.

A further very good return on capital employed

Within our value-oriented management approach, our success is measured principally by **ROCE,** which was 14.0 percent in 2016 and therefore well above our cost of capital. In our regular review of the cost of capital, it was confirmed as being unchanged at 10.5 percent before taxes in 2016 and adjusted to 10.0 percent before taxes for 2017.

The average **capital employed** decreased by €0.2 billion to €10.3 billion in 2016. This was principally due to optimized net working capital and the divestment of the stake in Vivawest in 2015. By contrast, additions of intangible assets, property, plant and equipment resulting from ongoing realization of growth-driven investments increased capital employed.

The year-on-year drop in ROCE was caused by lower operating earnings, while the reduction in capital employed had a counter-effect.

In the three chemical segments, ROCE is well above the cost of capital. The return on capital employed in the Nutrition & Care and Resource Efficiency segments is well above average. In the Performance Materials segment there was a significant improvement in ROCE thanks to better operating earnings and lower capital employed. The ROCE for the Group was considerably lower because capital employed also includes identified hidden reserves from former business combinations.

Capital employed, ROCE and Economic Value Added (EVA®)

in € million	2016	2015
Intangible assets	3,231	3,158
+ Property, plant and equipment	5,851	5,690
+ Investments	49	175
+ Inventories	1,699	1,782
+ Trade accounts receivable	1,749	1,923
+ Other interest-free assets	402	435
– Interest-free provisions	–1,072	–999
– Trade accounts payable	–1,013	–1,050
– Other interest-free liabilities	–563	–584
= Capital employed [a]	**10,333**	**10,530**
Adjusted EBIT	**1,448**	**1,752**
ROCE (adjusted EBIT/ capital employed) in %	**14.0**	**16.6**
Cost of capital (capital employed * WACC)	1,085	1,106
EVA® (adjusted EBIT – cost of capital)	**363**	**646**

[a] Annual averages.

ROCE by segment

in %	2016	2015
Nutrition & Care	26.8	41.5
Resource Efficiency	27.1	24.8
Performance Materials	18.3	11.9
Services	5.6	9.3
Evonik (including Corporate, other operations)	**14.0**	**16.6**

Clear value creation

Economic Value Added (**EVA®**) is the difference between adjusted EBIT and the cost of capital, which is calculated by multiplying average capital employed by the average cost of capital (WACC). If EVA® is positive, the Group creates value (value spread approach). In 2016, we generated EVA® of €363 million. The substantial reduction of €283 million compared with the previous year was attributable to the drop in operating earnings.

2.5 Comparison of forecast and actual performance

Financial forecast met

In our annual report on 2015, we forecast slightly lower sales in 2016, and adjusted EBITDA between €2.0 billion and €2.2 billion. After the first six months, we specified that adjusted EBITDA would be in the upper half of this range. We achieved our forecast, with sales down 6 percent at €12,732 million and adjusted EBITDA of €2,165 million. As expected, ROCE exceeded the cost of capital, coming in at 14.0 percent, but was lower than in 2015.

As anticipated, capital expenditures were around the 2015 level at €1.0 billion, while the free cash flow was lower than in the previous year at €0.8 billion.

Non-financial safety indicators once again at a good level

Our significant non-financial performance indicators for occupational and plant safety continued their positive long-term trend. A further improvement in our safety indicators is especially important to us. We have therefore set ambitious long-term targets. However, these indicators can naturally fluctuate from year to year.

Our goal for accident frequency was to be below our defined ceiling of 1.3. We achieved this, with an accident frequency rate of 1.2.

We also aimed for a slight improvement in our incident frequency indicator, with a target of between 48 and 53. The indicator improved considerably to 43, which was below both the ceiling set by us and the forecast range.

Comparison of forecast and actual performance

Forecast performance indicators	2015	Forecast for 2016	Adjusted forecast for 2016[a]	2016	Forecast for 2017
Group sales	€13.5 billion	Slight decline		€12.7 billion	Year-on-year increase
Adjusted EBITDA	€2.465 billion	Between €2.0 billion and €2.2 billion	Upper half of the range	€2.165 billion	Between €2.2 billion and €2.4 billion
ROCE	16.6 %	Above the cost of capital, slight decline		14.0 %	Above the cost of capital, significant decline
Capital expenditures	€0.9 billion	Around the prior-year level		€1.0 billion	Around €1.0 billion
Free cash flow	€1.1 billion	Significantly positive, but below the prior year		€0.8 billion	Significantly positive, but perceptibly below the prior year
Accident frequency	1.0	Below upper limit of 1.3		1.2	Stable and below upper limit of 1.3
Incident frequency	55	Between 48 and 53		43	Between 43 and 48

[a] In the interim financial report.

2.6 Segment performance

Nutrition & Care segment

The Nutrition & Care segment produces specialty chemicals, principally for use in consumer goods for daily needs, and in animal nutrition and healthcare products. The long-term development of this segment's business is driven by socio-economic trends: Global population growth and the rise of an affluent middle class in the emerging markets are increasing consumption of animal protein such as meat, eggs, milk and fish, leading to higher demand for better quality day-to-day consumer goods such as personal care products and cosmetics. Moreover, as a result of demographic change the proportion of older people in the developed markets will rise in the long term, leading to higher demand for cosmetics, wellness and healthcare products.

Key data for the Nutrition & Care segment

in € million	2016	2015	Change in %
External sales	4,316	4,924	–12
Adjusted EBITDA	1,006	1,435	–30
Adjusted EBITDA margin in %	23.3	29.1	–
Adjusted EBIT	795	1,214	–35
Capital expenditures	315	250	26
Depreciation and amortization	209	212	–1
Capital employed (annual average)	2,965	2,923	1
ROCE in %	26.8	41.5	–
No. of employees as of December 31	7,594	7,165	6

Slight volume growth

In the Nutrition & Care segment sales declined 12 percent from the very high prior-year level to €4,316 million. Since volumes were slightly higher, the decline was due to the substantial drop in selling prices.

In essential amino acids for animal nutrition, selling prices for methionine were below the record level seen in 2015. In addition, further price pressure came from the difficult economic environment in some regions that traditionally report strong growth. This was exacerbated by additional supply. Nevertheless, there was again pleasing growth in the global market for methionine. Selling prices for the other amino acids were also lower than in the previous year. Overall, despite slightly higher volumes, sales of amino acids were significantly lower than in the prior year due to lower selling prices. The development of the baby care business was mainly held back by overcapacity. Sales were down significantly as a consequence of perceptibly lower volumes, declining prices and the fact that low raw material prices were passed on to customers. By contrast, the healthcare business performed very well, especially in the exclusive synthesis business, which benefited from the trend to suppliers with high production standards. It was therefore able to realize projects and successfully strengthen its project pipeline. The business with functional polymers for smart drug delivery systems for oral and parenteral pharmaceuticals was extended further. Higher sales were also reported for additives for polyurethane foam, which are used, for example, in mattresses and insulating materials. In the business with personal care products, emulsifiers and active ingredients posted a particularly favorable development.

Adjusted EBITDA below the very high prior-year level

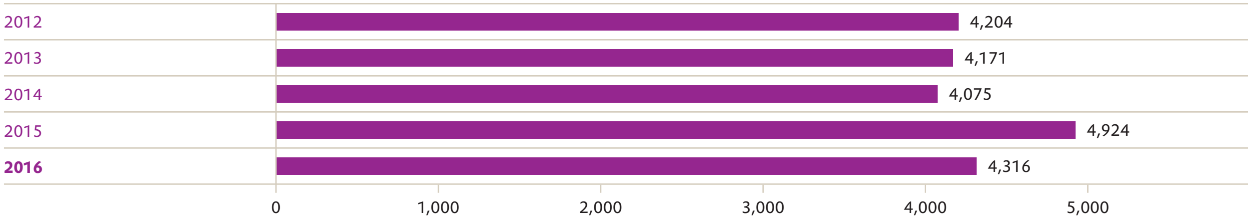
The Nutrition & Care segment's adjusted EBITDA was 30 percent below the excellent prior-year level at €1,006 million. This decline was due principally to lower selling prices. The adjusted EBITDA margin slipped from an excellent 29.1 percent in the previous year to 23.3 percent.

Higher capital expenditures—Attractive return on capital employed

Capital expenditures in the Nutrition & Care segment increased 26 percent to €315 million, and were again well above depreciation, which was €209 million. The average capital employed was €2,965 million, a slight increase of €42 million. Due to the reduction in operating earnings, ROCE dropped to 26.8 percent (2015: 41.5 percent), but nevertheless remains at an attractive level.

Development of sales in the Nutrition & Care segment

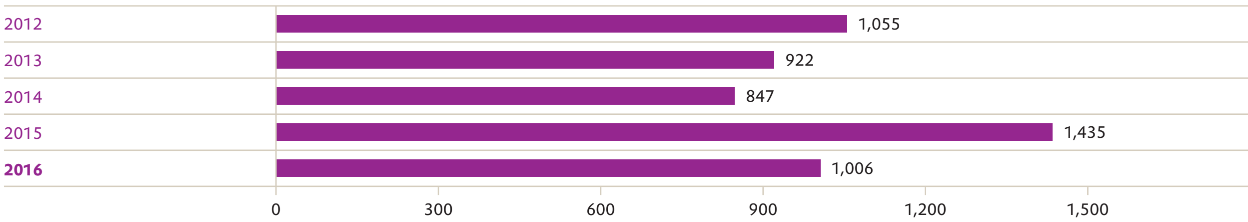
in € million



Figures for 2012 and 2013 reflect the old structure.

Development of adjusted EBITDA in the Nutrition & Care segment

in € million



Figures for 2012 and 2013 reflect the old structure.

Investment projects to drive growth

In Antwerp (Belgium), the Nutrition & Care segment erected the world's first production facility for a new source of methionine specifically for shrimp and other crustaceans. Investment was in the low double-digit million euro range. AQUAVI® Met-Met, a dipeptide comprising two DL-methionine molecules, is a cost-efficient and sustainable feed additive used in aquaculture. In this way Evonik is making an important contribution to raising sustainability by improving environmental compatibility and maintaining biodiversity.

In view of the strong growth in the market for methionine, Evonik has commenced construction of a further world-scale production complex in Singapore, alongside the facility on Jurong Island which came into service in November 2014. In this new, fully backwardly integrated production complex as well, the Nutrition & Care segment will produce all key strategic precursors.

The segment has a global investment initiative to strengthen its integrated technology platform for specialty silicones in Germany and China. Construction of a new production facility for organically modified specialty silicones in Shanghai (China) started in 2016. From 2018, high demand in Asia should therefore be met to a greater extent from local production. Specialty silicones are used in a wide range of applications in numerous industries. As polymer additives, they are used in the manufacture of comfortable upholstered furniture, auto seats and ergonomic mattresses. They also play an important part in formulations for insulating materials for buildings and ensure the energy efficiency of refrigerators. The silicone platforms are the backbone of significant business activities in the Nutrition & Care and Resource Efficiency segments.

Selected acquisitions to strengthen the portfolio

The Nutrition & Care segment acquired MedPalett AS, Sandnes (Norway) in March 2016. This company markets food ingredients containing anthocyanins, which are known for their natural antioxidant properties and expand the advanced food ingredients offering of our healthcare business.

At the start of July 2016 the Nutrition & Care segment acquired the probiotics business of NOREL S.A., Madrid (Spain). This comprises the existing probiotics product portfolio and the production site in León (Spain). This acquisition extends the segment's portfolio of products for sustainable and healthy animal nutrition solutions. Probiotics play an important role as natural alternatives to antibiotic growth promoters.

To further strengthen the healthcare business, at the end of August 2016 the Health & Nutrition segment acquired the business of Transferra Nanosciences Inc., Burnaby (Canada), which specializes in developing liposomal drug delivery systems.

Resource Efficiency segment

The Resource Efficiency segment supplies high-performance materials for environment-friendly and energy-efficient system solutions for the automotive, paints, coatings, adhesives and construction industries and many other sectors. Resource efficiency is the basis for energy-efficient and environmentally compatible products and is therefore a key factor in the development of this segment's business.

Key data for the Resource Efficiency segment

in € million	2016	2015	Change in %
External sales	4,473	4,279	5
Adjusted EBITDA	977	896	9
Adjusted EBITDA margin in %	21.8	20.9	–
Adjusted EBIT	751	675	11
Capital expenditures	266	241	10
Depreciation and amortization	224	222	1
Capital employed (annual average)	2,776	2,726	2
ROCE in %	27.1	24.8	–
No. of employees as of December 31	8,928	8,662	3

Perceptible volume growth

The Resource Efficiency segment posted a successful performance, with considerable volume growth pushing sales up 5 percent to €4,473 million. Selling prices slipped slightly, principally because lower raw material costs were passed on to customers.

High demand for crosslinkers, especially in Europe, led to higher sales of these products, which are mainly used in environment-friendly paint systems/coatings, high-performance composites and specialty plastics. Higher volumes increased sales of coating additives, principally applications technology solutions for coating technologies. Sales of silica were higher thanks to an upturn in demand, especially from the tire and coatings industries. Business with high-performance polymers was also pleasing, with volumes driving a rise in sales here too. Oil additives, which enhance the performance of engines and gears in the automotive, construction and transportation industries, were again very successful. In the active oxygen products business, conventional applications for hydrogen peroxide developed well, with the production facility in the Netherlands, which we acquired in October 2015, making a contribution to this.

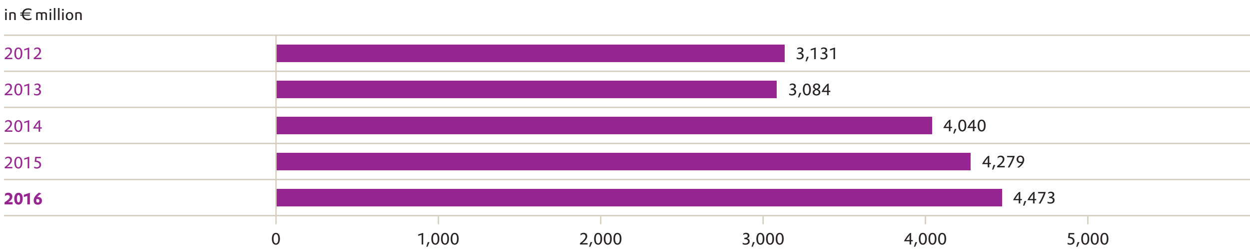
Further rise in earnings

Adjusted EBITDA in the Resource Efficiency segment advanced 9 percent to €977 million, mainly as a result of increased volumes, high capacity utilization, and lower raw material costs. The adjusted EBITDA margin improved to a very good 21.8 percent.

High investment—Further improvement in ROCE

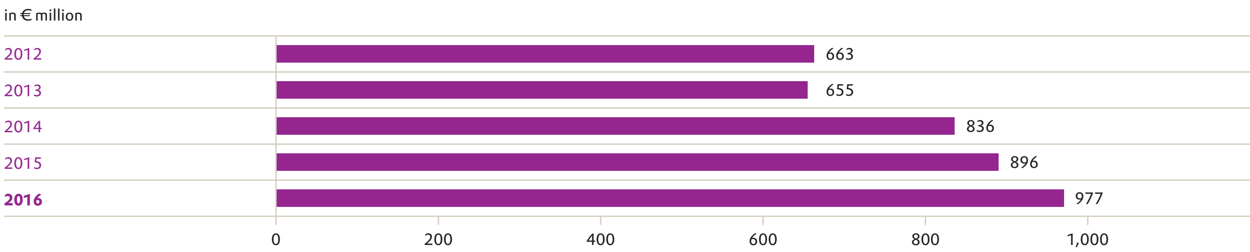
In the Resource Efficiency segment, capital expenditures increased to €266 million (2015: €241 million). They were once again higher than depreciation and amortization, which came to €224 million. As a result of the expansion of production capacity, the average capital employed increased by €50 million to €2,776 million. Thanks to higher earnings, ROCE improved to 27.1 percent (2015: 24.8 percent).

Development of sales in the Resource Efficiency segment



Figures for 2012 and 2013 reflect the old structure.

Development of adjusted EBITDA in the Resource Efficiency segment



Figures for 2012 and 2013 reflect the old structure.

Investment projects to expand market positions

By raising global capacity for precipitated silica, the Resource Efficiency segment is supporting the growth of its global customers in the tire and construction industries and in attractive specialty markets. A production facility for highly dispersible silica (HD silica) came on stream in São Paulo (Brazil). This fast-growing product is mainly used in high-quality tires with low rolling resistance. Other applications in South America are in the food, feed and agriculture sectors. Investment was in the mid double-digit million euro range. In North America, construction of a new production complex for precipitated silica has started in Charleston (South Carolina, USA), close to the production facilities operated by major tire manufacturers. This world-scale facility is scheduled for completion in 2018. Investment is in the low triple-digit million euro range.

To strengthen the attractive membranes growth field, another production complex for SEPURAN® gas separation membrane modules is under construction in Schörfling (Austria), with investment here in the mid double-digit millions of euros. Start-up of the facility is planned for the end of 2017 and will double production capacity from the present level. SEPURAN® membranes allow particularly efficient separation of gases such as methane, nitrogen and hydrogen. The benefits of Evonik's membrane technology are more accurate separation of the gases and higher productivity than other common separation methods. Start-up of another production plant for polyamide 12 powder in Marl (Germany) is also scheduled for the end of 2017. Investment in this plant runs into the mid double-digit million euro range and will raise annual capacity by 50 percent. The Resource Efficiency segment will use the additional production capacity to meet rising demand from attractive markets in the coatings industry and additive manufacturing.

As binders for paints, specialty copolyesters are used in coil coatings and, increasingly, in food can coatings. To meet rising demand, the segment is investing in a new plant at the Witten site in Germany. This will have annual capacity of several thousand metric tons. Completion is scheduled for 2018.

Performance Materials segment

The heart of the Performance Materials segment is the production of polymer materials and intermediates, mainly for the rubber, plastics and agriculture industries. Progressive globalization offers market opportunities for this segment, driven by mobility and increasing urbanization, which are raising global demand for efficient transportation systems and sustainable construction methods.

Key data for the Performance Materials segment

in € million	2016	2015	Change in %
External sales	3,245	3,435	–6
Adjusted EBITDA	371	309	20
Adjusted EBITDA margin in %	11.4	9.0	–
Adjusted EBIT	234	174	34
Capital expenditures	168	183	–8
Depreciation and amortization	134	132	2
Capital employed (annual average)	1,278	1,467	–13
ROCE in %	18.3	11.9	–
No. of employees as of December 31	4,393	4,380	–

Perceptible volume growth

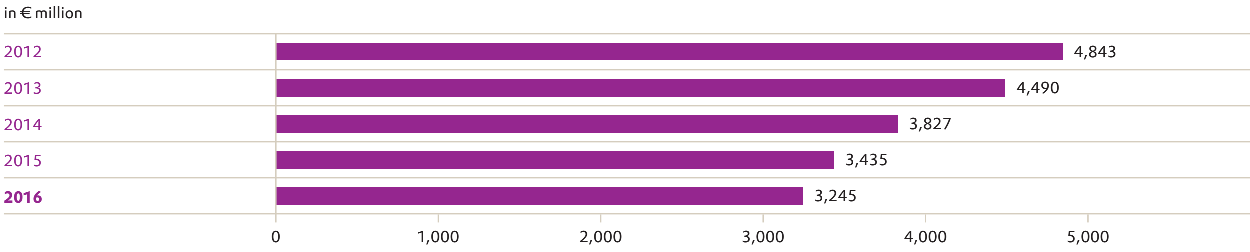
Good demand drove perceptible volume growth in the Performance Materials segment. However, sales were down 6 percent at €3,245 million due to lower selling prices as the reduction in raw material prices was passed on to customers.

Volumes of performance intermediates rose significantly thanks to good demand and the additional production capacities that came into service in Marl (Germany) and Antwerp (Belgium) in 2015. However, selling prices declined further as a result of the drop in the price of oil, leading to lower sales. Methacrylates benefited from very good demand, especially from the coatings and automotive industries, but sales fell short of the prior-year level, principally because lower raw material costs were passed on. A very good trend was registered by alkoxides for the production of biodiesel and sales rose considerably on the back of higher volumes.

Improvement in adjusted EBITDA

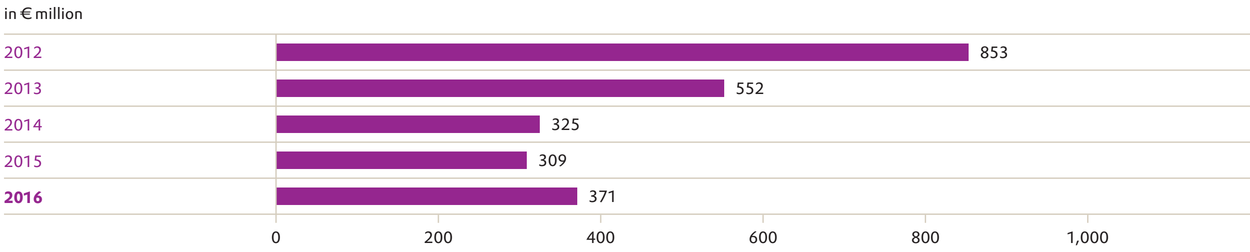
Adjusted EBITDA increased 20 percent to €371 million. This was primarily due to a rise in volumes, high capacity utilization at production facilities, lower raw material costs, and strict cost discipline. The adjusted EBITDA margin improved from 9.0 percent to 11.4 percent.

Development of sales in the Performance Materials segment



Figures for 2012 and 2013 reflect the old structure.

Development of adjusted EBITDA in the Performance Materials segment



Figures for 2012 and 2013 reflect the old structure.

Targeted investment—Capital employed up considerably year-on-year

To secure its leading market positions, raise efficiency and broaden its technology base, the Performance Materials segment invested €168 million in property, plant and equipment in 2016. Capital expenditures therefore exceeded depreciation, which amounted to €134 million. Average capital employed dropped by €189 million to €1,278 million, principally due to measures to optimize property, plant and equipment and working capital. ROCE improved considerably from 11.9 percent to 18.3 percent.

Global projects to expand capacity

In Mobile (Alabama, USA) the Performance Materials segment has completed the capacity increase for ACA (acrolein cyanohydrin-o-acetate). This drives forward the very successful exclusive partnership with a global leader in broadband herbicides. The new production plant, which involved total investment in the triple-digit million euro range, will be brought into service in early 2017.

The joint venture with Grupo Idesa in Mexico started up production of sodium cyanide in the growing Mexican market in September 2016. The new plant has production capacity for 40,000 metric tons a year and meets the latest technology, safety and environmental standards.

To ensure sustainable and reliable long-term supply of potassium derivatives to customers, Evonik has established a production joint venture with AkzoNobel to build and operate a membrane electrolysis plant for chlorine and potassium hydride solution in Ibbenbüren (Germany). Production is scheduled to start in the fourth quarter of 2017.

Services segment

The Services segment provides site management, utilities and waste management, technical, process technology, engineering, and logistics services for the chemicals segments and external customers at our sites. It also provides standardized Group-wide administrative services to support the chemicals businesses and the management holding company.

Key data for the Services segment

in € million	2016	2015	Change in %
External sales	683	828	−18
Adjusted EBITDA	151	159	−5
Adjusted EBITDA margin in %	22.1	19.2	–
Adjusted EBIT	32	50	−36
Capital expenditures	189	177	7
Depreciation and amortization	117	107	9
Capital employed (annual average)	572	539	6
ROCE in %	5.6	9.3	–
No. of employees as of December 31	12,892	12,668	2

Prior-year figures restated.

The Services segment generates sales both internally, with the specialty chemicals segments and Corporate Center (2016: €1,946 million), and with external customers. External sales fell 18 percent to € 683 million in 2016. This was mainly due to an energy- and raw material-driven drop in revenues from procurement and energy supply for external customers at our sites. Adjusted EBITDA was down 5 percent year-on-year at €151 million.

Capital expenditures in this segment increased 7 percent to €189 million. That was above depreciation, which amounted to €117 million. In Marl (Germany), Evonik started up a highly efficient gas and steam turbine power plant in cooperation with E.ON Connecting Energies. Development, financing and realization were undertaken by E.ON. Evonik operates the power plant, which replaces an old coal-fired plant. The rated power of this innovative new co-generation plant is 60 Megawatt electric power and 100 Megawatt thermal power. Fuel efficiency is 89 percent, resulting in annual savings of around 280,000 metric tons of CO_2. Through this new plant, the partners ensure economic and environmentally compatible energy supply to the Marl Chemical Park.

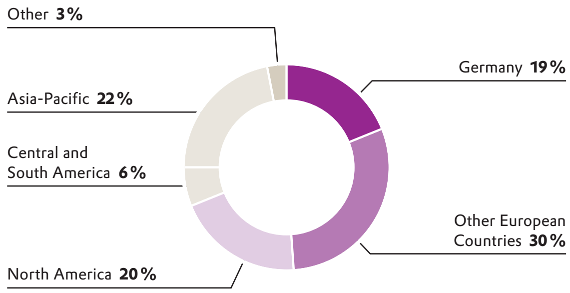
2.7 Regional development

A global presence

81 percent of our sales were generated outside Germany in 2016.

Sales fell 6 percent to €2,441 million in Germany, mainly as a consequence of lower raw material prices. Our German sites serve customers throughout Europe and in some overseas markets as well as domestic customers. To strengthen these sites, we increased capital expenditures to €478 million (2015: €427 million). A new membrane facility and a new gas and steam turbine power plant were taken into service in Marl in 2016.

Sales by region [a]



[a] By location of customer.

Sales in other European countries slipped 7 percent to €3,844 million. The chief reasons for this were the oil price-driven reduction in sales in the Performance Materials segment and the decline in sales in the Nutrition & Care segment. By contrast, sales rose in the Resource Efficiency segment. This region's share of Group sales decreased to 30 percent. Capital expenditures in this region were €72 million, which was slightly lower than in the previous year. The first production facility for a new source of methionine for shrimp and crustaceans was started up successfully in Antwerp (Belgium).

Lower sales in the Americas

Sales dropped 4 percent to €2,491 million in North America, mainly as a result of the development of the Nutrition & Care and Performance Materials segments. This region accounted for an unchanged 20 percent of total sales. Capital expenditures rose 15 percent to €240 million. Work on expansion of capacity for ACA (acrolein cyanohydrin-o-acetate) in Mobile (Alabama, USA) was completed, and the new capacity will come on stream in early 2017.

Sales declined 16 percent to €772 million in Central and South America. This was mainly due to the Nutrition & Care segment. This region's share of Group sales therefore decreased slightly to 6 percent. Capital expenditures were considerably lower at €22 million (2015: €67 million). A new plant for precipitated silica came on stream in São Paulo (Brazil).

Higher investment in the Asia-Pacific region

Sales in the Asia-Pacific region came to €2,765 million, virtually unchanged year-on-year. This region's share of Group sales increased to 22 percent. Capital expenditures rose 71 percent to €147 million. We are currently building a further world-scale production complex for methionine in Singapore.

2.8 Earnings position

Lower income before income taxes, continuing operations

Lower selling prices reduced sales 6 percent to €12,732 million despite higher volumes. The cost of sales was 6 percent lower at €8,534 million in spite of the increase in volumes. The main positive factors were lower raw material costs, along with substantial cost-savings from the successful implementation of the On Track 2.0 efficiency enhancement program. The gross profit on sales therefore decreased by just 5 percent to €4,198 million.

Selling expenses increased 5 percent to €1,515 million. The chief reason for this was the expansion of business resulting from new production facilities. Research and development expenses increased slightly, by 1 percent, to €438 million. General administrative costs declined by 1 percent to €686 million as the increase in factor costs was more than offset by the cost savings resulting from the Administration Excellence program. Other operating income was €321 million, 28 percent below the prior-year level, which contained high income from the divestment of the stake in Vivawest. The 10 percent drop in other operating expenses to €543 million was principally due to the reduction in restructuring expenses and impairment losses. The result from investments recognized at equity was –€39 million and primarily comprised an impairment loss on one investment in the Nutrition & Care segment. Income before financial result and income taxes, continuing operations was down 22 percent at €1,298 million.

Income statement for the Evonik Group

in € million	2016	2015	Change in %
Sales	12,732	13,507	–6
Cost of sales	–8,534	–9,096	–6
Gross profit on sales	**4,198**	**4,411**	**–5**
Gross profit on sales	–1,515	–1,447	5
Research and development expenses	–438	–434	1
General administrative expenses	–686	–693	–1
Other operating income	321	445	–28
Other operating expenses	–543	–603	–10
Result from investments recognized at equity	–39	–15	–
Income before financial result and income taxes, continuing operations	**1,298**	**1,664**	**–22**
Financial result	–174	–223	–22
Income before income taxes, continuing operations	**1,124**	**1,441**	**–22**
Income taxes	–362	–422	–14
Income after taxes, continuing operations	**762**	**1,019**	**–25**
Income after taxes, discontinued operations	96	–17	–
Income after taxes	**858**	**1,002**	**–14**
thereof attributable to			
Non-controlling interests	14	11	27
Shareholders of Evonik Industries AG (net income)	**844**	**991**	**–15**

Net income 15 percent below high prior-year level

The financial result improved 22 percent to –€174 million. This amount contains special items of –€35 million, which include currency hedging and financing costs of €30 million ahead of the acquisition of the Air Products specialty additives business and the planned acquisition of the silica business of Huber. It also includes interest expense of €5 million in connection with the establishment of provisions. The corresponding prior-year figure comprised special items of –€44 million, principally interest expense in connection with the establishment of provisions. Income before income taxes, continuing operations declined 22 percent to €1,124 million. Lower earnings were the main reason for the 14 percent drop in income taxes to €362 million.

Income after taxes, discontinued operations[1] was €96 million and mainly comprised the reversal of a provision relating to the former Energy Business Area, as it was no longer required. The prior-year figure of –€17 million was mainly attributable to the remaining lithium-ion activities, which were divested in April 2015. Income after taxes fell 14 percent to €858 million. Non-controlling interests in after-tax income amounted to €14 million (2015: €11 million) and comprised the pro rata profits and losses of fully consolidated subsidiaries that are attributable to shareholders outside the Evonik Group.

The Evonik Group's net income declined by 15 percent to €844 million.

2.9 Financial condition

Central financial management

The principal objectives of financial management are safeguarding the financial independence of the Evonik Group and limiting financial risks. We therefore apply a central financing strategy. Borrowing and bond issuance are normally undertaken by Evonik Industries AG or its financing company Evonik Finance B. V., Amsterdam (Netherlands). The liabilities of this company are fully guaranteed by Evonik Industries AG. To reduce external borrowing, surplus liquidity at Group companies is placed in a cash pool at Group level to cover financing requirements in other Group companies through intragroup loans. Currency derivatives are used at Group level to hedge intragroup loans. Evonik has a flexible range of corporate financing instruments to meet liquidity requirements for day-to-day business, investments, and the repayment of financial debt.

[1] See Note 5.3.

Solid investment grading rating strengthened

While the Standard & Poor's rating agency left the rating of Evonik Industries AG unchanged at BBB+ with a stable outlook, Moody's raised its rating one notch from Baa2 with a positive outlook to Baa1 with a stable outlook on May 10, 2016. This was Moody's response to the announcement of the planned acquisition of the Air Products specialty additives business. It expects Evonik's business profile to improve as a result of economies of scale and greater diversification. Maintaining a solid investment grade rating is a central element in our financing strategy. In this way we gain access to a broad investor base on appropriate financing terms and thus maintain our financial flexibility. A solid investment grade rating gives banks, investors, customers and suppliers a reliable basis for a long-term business relationship with Evonik.

Solid funding of pension obligations

Pension provisions make up a considerable proportion of our total debt. They are non-current and depend on the discount rate. The €503 million increase in pension provisions was principally due to the fact that the discount rate at year end was lower than in the previous year. The interest-driven rise in pension obligations was partially offset by a robust performance by plan assets, so financing of pension obligations as of the reporting date was 67 percent, a solid level in line with the industry norm.

Net financial asset position again

Financial debt was €3,547 million, €1,992 million higher than at year-end 2015, chiefly as a result of the issue of bonds totaling €1,900 million in September. Financial assets increased by €2,005 million to €4,658 million. Alongside the proceeds from the bond issue, this was due to the high free cash flow[1], while the dividend payment of €536 million for fiscal 2015 in May 2016 had a counter-effect. Overall, **net financial assets** were €1,111 million, €13 million higher than at year-end 2015.

Net financial assets

in € million	Dec. 31, 2016	Dec. 31, 2015
Non-current financial liabilities[a]	–3,240	–1,361
Current financial liabilities[a]	–307	–194
Financial debt	**–3,547**	**–1,555**
Cash and cash equivalents	4,623	2,368
Current securities	11	262
Other financial investments	24	23
Financial assets	**4,658**	**2,653**
Net financial assets as stated on the balance sheet	**1,111**	**1,098**

[a] Excluding derivatives.

Corporate bonds as a central financing instrument

At year-end 2016, the financial debt of €3,547 million comprised five bonds with a total carrying amount of €3,127 million, decentralized bank loans totaling €375 million, and other financial liabilities of €45 million.

To finance the acquisition of the Air Products specialty additives business, we successfully placed bonds with a nominal value of €1.9 billion and an average coupon of 0.35 percent p. a. on the debt market in September 2016. The issue comprised three fixed-rate tranches with tenors of four-and-a-half, eight and twelve years.

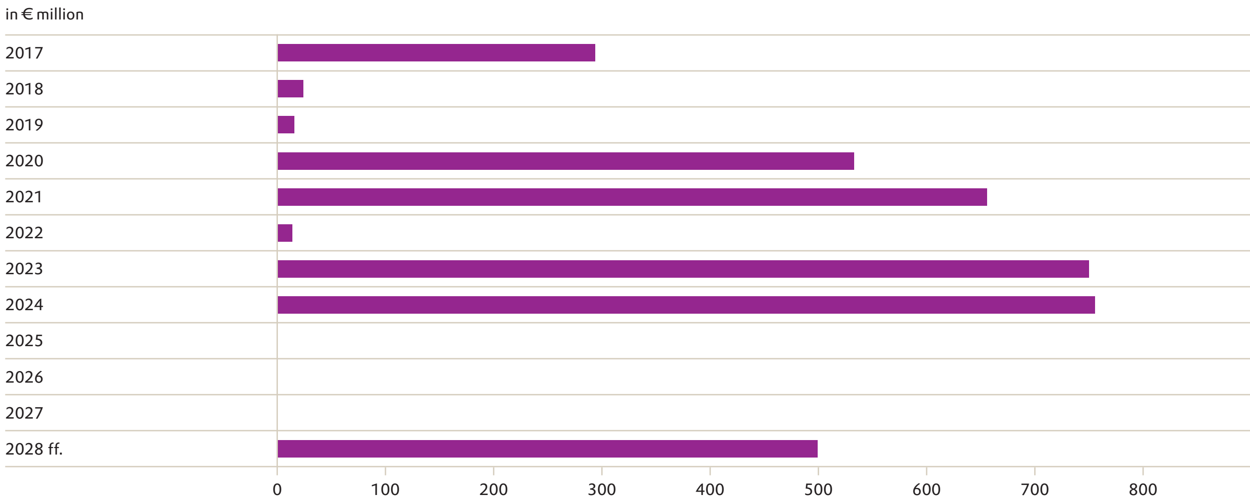
On the reporting date, €3.15 billion of the debt issuance program of up to €5 billion had been used to issue bonds.

Bonds issued under the debt issuance program

	Nominal value in € million	Rating (S&P / Moody's)	Maturity	Coupon in %	Issue price in %
Evonik Industries AG					
Fixed-interest bond 2013/2020	500	BBB+ / Baa1	April 8, 2020	1.875	99.185
Fixed-interest bond 2015/2023	750	BBB+ / Baa1	Jan. 23, 2023	1.000	99.337
Evonik Finance B. V.					
Fixed-interest bond 2016/2021	650	BBB+ / Baa1	March 8, 2021	0.000	99.771
Fixed-interest bond 2016/2024	750	BBB+ / Baa1	Sep. 7, 2024	0.375	99.490
Fixed-interest bond 2016/2028	500	BBB+ / Baa1	Sep. 7, 2028	0.750	98.830

[1] Cash flow from operating activities, continuing operations, less outflows for capital expenditures on intangible assets, property, plant and equipment.

Maturity profile of financial liabilities



As of December 31, 2016.

Over 90 percent of the Group's financial liabilities are denominated in euros (2015: over 85 percent). Only Group companies outside the euro zone have financial liabilities in other currencies. The relevant currencies include the Chinese renminbi yuan (CNY) and the Brazilian real (BRL). Including currency derivatives concluded for financing reasons, around 35 percent of financial liabilities are denominated in euros, 29 percent in US dollars, 20 percent in CNY, 7 percent in BRL and 9 percent in other currencies.

Liquidity position remains strong

As of December 31, 2016, Evonik had cash and cash equivalents totaling €4,623 million. Around €3.5 billion of this amount was used to settle the purchase price for the Air Products specialty additives business at the start of January 2017. Alongside cash and cash equivalents and investments in current securities, Evonik's central source of liquidity is still a €1.75 billion revolving credit facility from a syndicate of 27 national and international banks. This credit facility is divided into two tranches of €875 million each, which run until September 2018 and September 2020. It was not utilized in 2016 and does not contain any covenants requiring Evonik to meet specific financial ratios.

Further, as of December 31, 2016, various unused credit lines totaling €277 million were available to meet local requirements, especially in the Asia-Pacific region.

Higher capital expenditures

In the specialty chemicals sector Evonik is expanding in business areas and markets where it already has—or intends to build—a strong competitive position. Investment projects are aimed at utilizing potential for sustained profitable growth and value creation. Every project undergoes detailed strategic and economic analyses. In addition, there is a minimum return requirement for every project based on Evonik's cost of capital. We take a flexible and disciplined approach to extending our leading market positions. All projects are regularly reviewed for changes in the market situation.

Major projects completed or virtually completed in 2016

Segment	Location	Project
Nutrition & Care	Antwerp (Belgium)	Construction of production plant for AQUAVI® Met-Met, a new source of methionine for shrimp
	Castro (Brazil)	Construction of a new Biolys® plant
Resource Efficiency	Americana (Brazil)	Construction of new production facility for precipitated silica
Performance Materials	Mobile (Alabama, USA)	Expansion of capacity for acrolein cyanohydrin-o-acetate
Services	Marl (Germany)	Construction of a gas and steam turbine power plant

For further information on current capital expenditure projects, please see the section on segment performance.

We increased **capital expenditures** by 9 percent to €960 million in 2016. In principle, there is a slight timing difference in outflows for property, plant and equipment due to payment terms. In 2016, cash outflows for property, plant and equipment totaled €948 million (2015: €916 million).

The highest proportion of capital expenditures went to the Nutrition & Care and Resource Efficiency segments (33 percent and 28 percent respectively). A further 18 percent was allocated to the Specialty Materials segment, and 20 percent was invested in the Services segment. The regional focus of capital expenditures was Germany, which accounted for 50 percent of the total, followed by North America (25 percent), the Asia-Pacific region (15 percent) and other European countries (8 percent).

The financial investments totaling €191 million (2015: €90 million) mainly comprised the acquisition of the Norwegian company MedPalett AS and the business of the Canadian company Transferra Nanosciences Inc. and the Spanish company NOREL S.A.[1]

Another good cash flow

The **cash flow from operating activities** declined by €213 million to €1,758 million. The decline in operating earnings was partly offset by the clear reduction in net working capital.

The cash flow for investing activities comprised an outflow of €883 million. This was mainly for capital expenditures on property, plant and equipment and investments. It was countered by the sale of securities. In 2015 the cash outflow for investing activities totaled €660 million.

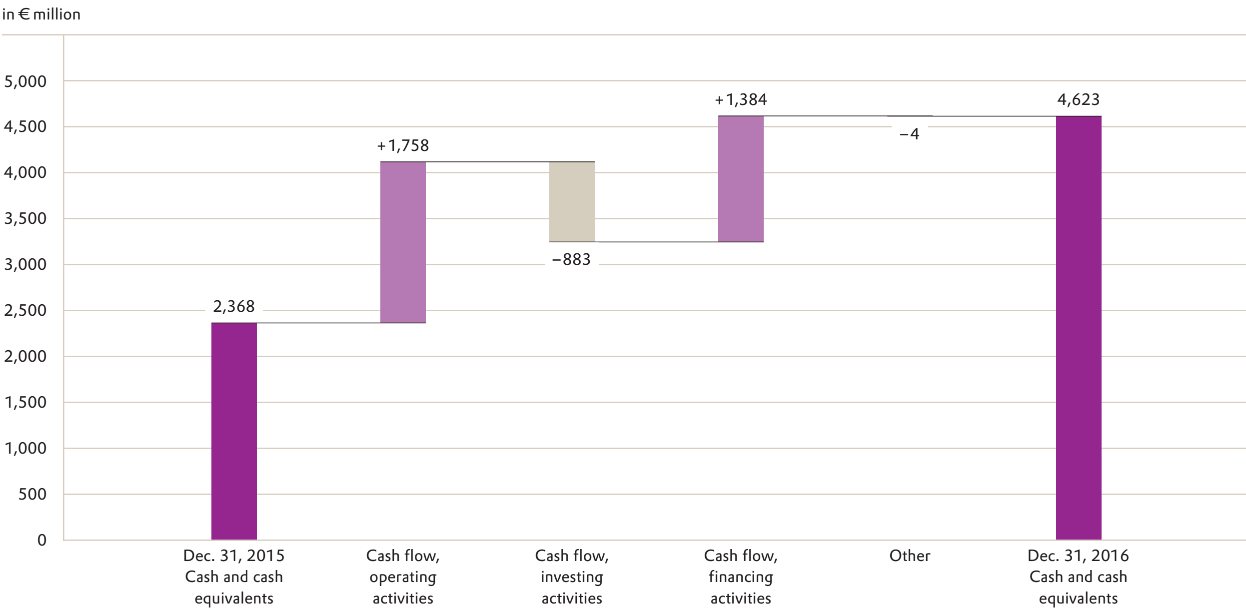
Cash flow statement (excerpt)

in € million	2016	2015
Cash flow from operating activities, continuing operations	1,758	1,968
Cash flow from operating activities, discontinued operations	–	3
Cash flow from operating activities	**1,758**	**1,971**
Cash flow from investing activities	**–883**	**–660**
Cash flow from financing activities	**1,384**	**133**
Change in cash and cash equivalents	**2,259**	**1,444**

The cash flow from financing activities was €1,384 million. The cash inflow from the new bonds was diminished principally by payment of the dividend for 2015. In the previous year, the cash inflow from financing activities was €133 million.

In 2016 we once again generated a high **free cash flow** of €810 million (2015: €1,052 million). Alongside the good operating performance and disciplined implementation of growth-driven investments, this was due to high inflows from systematic optimization of our net working capital.

Cash and cash equivalents December 31, 2016 versus December 31, 2015



[1] See section on segment performance and Note 5.2 to the consolidated financial statements.

2.10 Asset structure

Increase in total assets

As of December 31, 2016, total assets were €2.6 billion higher at €19.6 billion. Non-current assets increased €0.5 billion year-on-year to €10.8 billion. This was primarily because property, plant and equipment increased by €0.2 billion to €6.0 billion and intangible assets increased by €0.1 billion to €3.3 billion. In all, non-current assets decreased to 55 percent of total assets, down from 61 percent in the prior year. They are financed by liabilities with the same maturity structure.

Current assets increased by €2.1 billion to €8.8 billion. This was primarily attributable to a strong rise of €2.2 billion in cash and cash equivalents to €4.6 billion, largely as a result of the bonds issued in September 2016. Current income tax assets increased by €0.1 billion to €0.2 billion. This was offset by the decline of €0.1 billion in both trade accounts receivable and inventories to €1.7 billion in each case. Current assets therefore rose to 45 percent of total assets (2015: 39 percent).

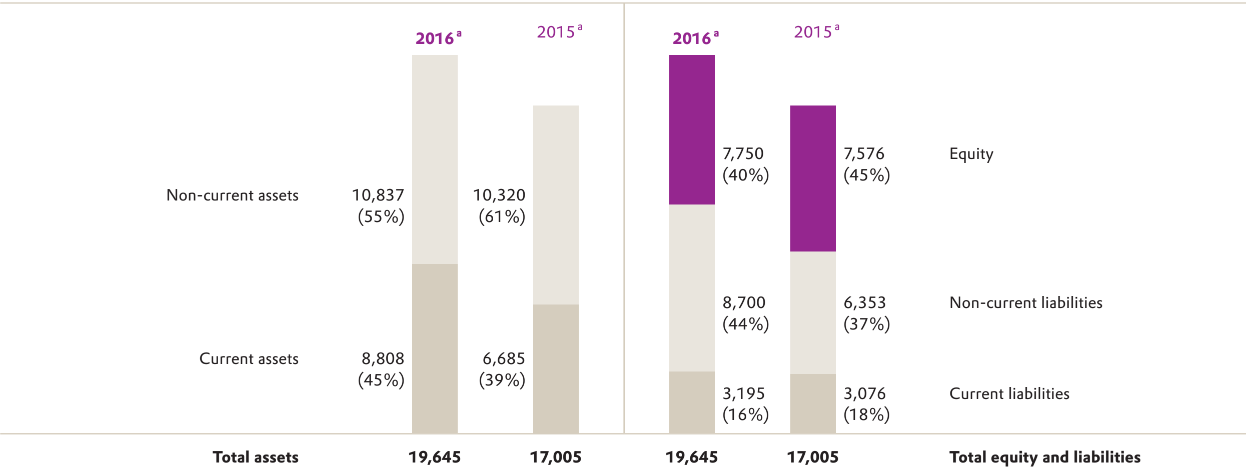
Equity[1] increased slightly, by €0.2 billion, to €7.7 billion. The equity ratio declined from 44.6 percent to 39.5 percent.

Non-current liabilities rose €2.3 billion to €8.7 billion. The main factor here was the €1.9 billion rise in financial liabilities to €3.3 billion resulting from the bond issues in September 2016. Provisions for pensions and other post-employment benefits increased by €0.5 billion to €3.9 billion, mainly due to the lower discount rate. Non-current liabilities decreased from 37 percent to 44 percent of total equity and liabilities.

Current liabilities increased slightly, by €0.1 billion, to €3.2 billion. Current liabilities decreased from 18 percent to 16 percent of total equity and liabilities.

Balance sheet structure of the Evonik Group

in € million



[a] As of December 31.

[1] See disclosures pursuant to Section 160 Paragraph 1 No. 3 German Stock Corporation Act (AktG), Note 7.7 (d).

3. Performance of Evonik Industries AG

Evonik Industries AG, Essen (Germany) is the parent company of the Evonik Group. It holds direct and indirect stakes in all subsidiaries in the Group. The annual financial statements for Evonik Industries AG have been prepared in accordance with the accounting standards set out in the German Commercial Code (HGB) and the German Stock Corporation Act (AktG).

The earnings performance of Evonik Industries AG is essentially dependent on income from its subsidiaries, income and expenses relating to corporate financing and portfolio management activities. Financial management is therefore based on an earnings indicator that contains all these effects: net income.

Income statement for Evonik Industries AG

in € million	2016	2015
Sales	635	592
Increase in work in progress	4	1
Other operating income	896	1,431
Cost of materials	–221	–235
Personnel expense	–341	–337
Depreciation and amortization of intangible assets, property, plant and equipment	–17	–15
Other operating expenses	–1,125	–1,294
Operating result	**–169**	**143**
Income from investments	1,481	1,509
Write-downs of financial assets and current securities	–19	–41
Write-ups of financial assets and current securities	12	10
Net interest income/expense	18	–157
Income before income taxes	**1,323**	**1,464**
Income taxes	–85	–259
Income after taxes	**1,238**	**1,205**
Net income	**1,238**	**1,205**
Allocation to revenue reserves	–302	–600
Net profit	**936**	**605**

The 7 percent rise in sales to €635 million was principally attributable to the revised definition of sales in the German Accounting Directive Implementation Act (BilRUG), and the transfer of services as of January 1, 2016. The prior-year figure included plant management fees of €31 million under the plant management agreements applicable until June 30, 2015. The cost of materials declined by 6 percent to €221 million, mainly because of lower raw material and energy prices. Personnel expense was around the prior-year level at €341 million. Other operating income declined significantly to €896 million. This was mainly due to the fact that the prior-year figure contained income of €413 million from the disposal of assets, especially the sale of the stake in Vivawest. In the gross presentation, currency translation gains of €670 million (2015: €939 million) are shown in other operating income, while the corresponding currency translation losses of €675 million (2015: €921 million) are shown separately in other operating expenses. The net result is a loss of €5 million compared with a gain of €18 million in 2015.

Income from investments slipped 2 percent to €1,481 million. The write-downs of financial assets and current securities totaling €19 million and write-ups of financial assets and current securities totaling €12 million mainly related to affiliated companies.

There was a substantial improvement in the net interest position, from net interest expense of €157 million to net interest income of €18 million. This was mainly due to higher income from pension assets and adjustment of the discount rate for pensions from a seven-year average to a ten-year average. This item also contains interest income and expense from the Group-wide cash pool, which is concentrated at Evonik Industries AG.

Income before income taxes was 10 percent lower at €1,323 million. Income taxes amounted to €85 million, compared with €259 million in 2015.

Net income was 33 percent higher at €1,238 million. €302,241,691.74 has been allocated to revenue reserves, leaving a net profit of €935,900,000.00. A proposal will be put to the Annual Shareholders' Meeting that €535,900,000.00 of the net profit should be paid out, giving a **dividend** of €1.15 per share. A further €400,000,000.00 should be carried forward for fiscal 2017.

The total assets of Evonik Industries AG increased from €14.0 billion in the previous year to €16.0 billion. Financial assets mainly comprise shares in subsidiaries. The receivables mainly comprise financial receivables of €2.2 billion (2015: €2.5 billion), principally in connection with loans and cash pooling activities. The increase of €2,056 million in cash and cash equivalents to €4,272 million related to the acquisition of the Air Products specialty additives business. To finance this transaction, bonds totaling €1.9 billion were issued via Evonik Finance B.V. These were recognized by Evonik Industries AG at year-end 2016 through the cash pool and used to pay the purchase price totaling €3.5 billion on January 3, 2017.

Equity increased by €0.7 billion to €6.7 billion, mainly as a consequence of the high earnings. The equity ratio slipped from 43.2 percent in the prior year to 42.1 percent. Provisions declined from €850 million to €577 million, mainly as a consequence of reversal of provisions that were no longer required and lower provisions for taxes. The receivables and liabilities reflect the financing activities of Evonik Industries AG in its role as the holding company for the Group. Payables include financial liabilities of €8.4 billion (2015: €6.8 billion). €7.1 billion (2015: €5.5 billion) of this comprises liabilities to affiliated companies, mainly in connection with cash pooling activities. A further €1.3 billion (2015: €1.3 billion) relates to corporate bonds.

Balance sheet for Evonik Industries AG

in € million	Dec. 31, 2016	Dec. 31, 2015
Assets		
Intangible assets, property, plant and equipment	55	40
Financial assets	9,011	8,870
Non-current assets	**9,066**	**8,910**
Inventories	9	8
Receivables and other assets	2,625	2,720
Securities	–	249
Cash and cash equivalents	4,272	2,056
Current assets	**6,906**	**5,033**
Prepaid expenses and deferred charges	**11**	**8**
Total assets	**15,983**	**13,951**
Equity and liabilities		
Issued capital	466	466
Capital reserve	721	721
Revenue reserves	4,606	4,235
Net profit	936	605
Equity	**6,729**	**6,027**
Provisions	**577**	**850**
Payables	**8,661**	**7,074**
Deferred income	**16**	**–**
Total equity and liabilities	**15,983**	**13,951**

Opportunities and risks

The most significant operating subsidiaries in Germany have profit-and-loss transfer agreements with Evonik Industries AG. In line with the central financing strategy of the Evonik Group, most internal and external financing transactions are handled by Evonik Industries AG. Consequently, Evonik Industries AG is essentially exposed to the same risks and opportunities as the Evonik Group. Further information can be found in the opportunity and risk report.

Outlook[1] for 2017

We anticipate that the net income of Evonik Industries AG in 2017 will be below the high level of 2016. In connection with the optimization of the legal structure of our investments, further subsidiaries will be merged in 2017. The resulting losses will result in lower income from investments.

Report on relations with affiliated companies

A report on Evonik Industries AG's relations with affiliated companies has been prepared in accordance with Section 312 of the German Stock Corporation Act (AktG). It concludes with the following declaration: "Our company received adequate remuneration or compensation for each of the transactions set out in this report on relations with affiliated companies under the circumstances known to us at the time when the transactions were undertaken. No actions were performed or omitted at the instigation of such companies."

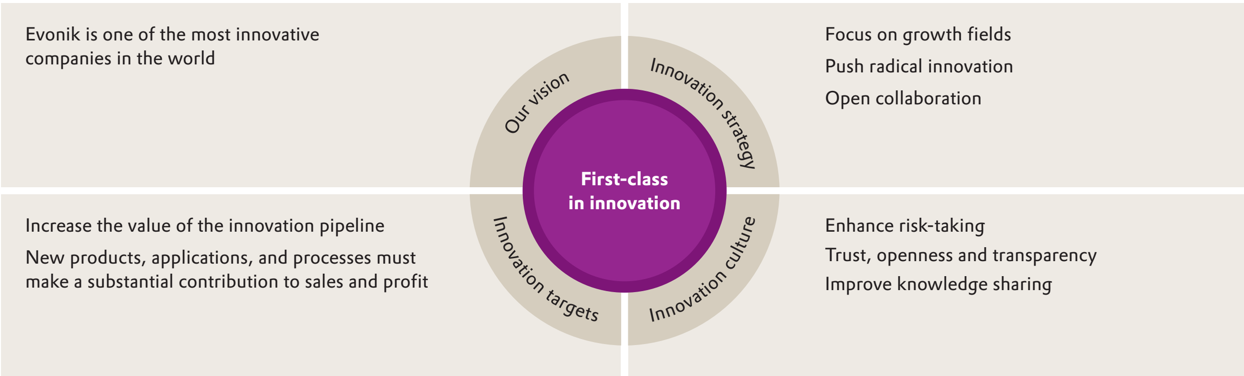
[1] For details of the assumptions, please refer to the report on expected developments.

4. Research & development

Innovation strategy firmly anchored in corporate strategy

Evonik—one of the world's most innovative companies. That is our vision, which we regard as a challenge. Evonik sees innovation as an important driver of sustainable and profitable growth that can leverage access to new markets. Our innovation strategy is therefore firmly rooted in our corporate strategy and systematically aligned to the growth markets of relevance to us: health, nutrition and resource efficiency.

Our claim: First-class in innovation



In the light of this, in 2016 we took an important step to pave the way for the future: We restructured our innovation portfolio and now focus on six growth fields with above-average growth rates. The aim is to generate more than €1 billion in additional sales in these areas by 2025. The six growth fields focus on highly attractive markets which Evonik can optimally serve with new products and solutions based on its core competencies. The six growth fields are:

- **Sustainable Nutrition:** Establishing additional products and services for sustainable nutrition of livestock and people
- **Healthcare Solutions:** Developing new materials for implants, as components of cell culture media, and for custom-tailored, innovative drug formulations
- **Advanced Food Ingredients:** Creating a portfolio of health-enhancing substances and nutritional supplements as a contribution to healthy nutrition
- **Membranes:** Extending SEPURAN technology for efficient gas separation to further applications
- **Cosmetic Solutions:** Developing further products based on natural sources for cosmetics and sensorially optimized formulations for skin care products
- **Smart Materials:** Developing products and technologies for additive manufacturing, electronic applications, and thermal insulation systems

Successful innovations

Evonik has an extensive patent strategy to protect new products and processes. The value and quality of our patent portfolio have increased steadily in recent years. Some 230 new patent applications were filed in the reporting period. In 2016 we had more than 24,500 patents and pending patents. Our new indicator, "patent-driven sales", which we introduced in 2016, comprised 56 percent of Evonik's consolidated sales. Product sales are defined as "patent-driven" if there is at least one relevant pending patent application or patent in force worldwide.

In 2016, products and applications introduced in the past five years accounted for 10 percent of Evonik's consolidated sales. Our innovative strength is underpinned by our success in research. Our most recent successful product launches include:

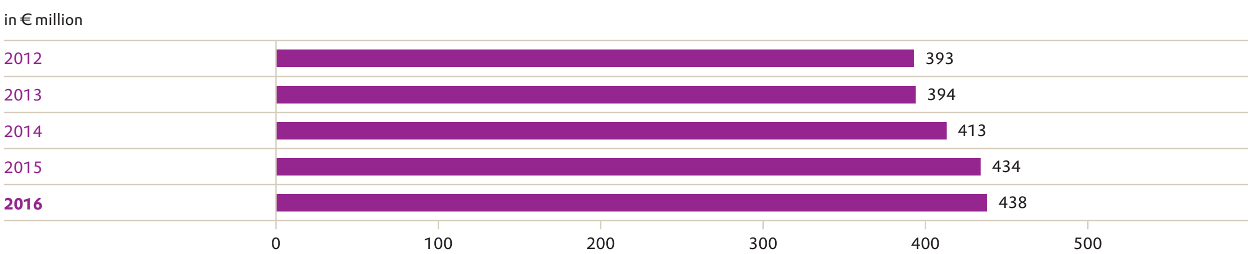
Main products introduced in 2016

Product	Description	Application	Sector
ECOBIOL	Strain of the bacteria Bacillus amyloliquefaciens CECT 5940	Feed additive (broiler chickens)	Animal nutrition
FECINOR	Strain of Enterococcus faecium CECT 4515	Feed additive (piglets)	Animal nutrition
AQUAVI® Met-Met	Dipeptide of two DL-methionine molecules	Feed additive (aquaculture)	Animal nutrition
SIVO 550	Reactive, low-VOC ethylpolysilicate with approx. 46 % SiO_2 for high-temperature applications	Crosslinker for polymers, coupling agent/adhesion promoter between organic polymers and inorganic fillers; flooring; PET recycling	Plastics
Viscoplex 12-095	Viscosity index improver with shear stability and low-temperature properties, optimized for modern automatic transmission (AT), dual clutch transmission (DCT) and continuously variable transmission (CVT) fluids	AT, DCT and CVT fluids	Automotive
TEGO® Dispers 1010	Wetting and dispersing additive with excellent pigment wetting properties and strong viscosity reduction for ceramic ink-jet applications. Especially suitable for inorganic pigments in non-polar solvents.	Ink-jet on ceramics, printing inks, wallpapers, facade coatings, road markings, wood lacquers	Manufacturers of printing inks, decorators' paints, interior and exterior architecture
VISIOMER C18-22 MA	Methacrylates	Wax inhibitors	Oil and gas
PLEXIGLAS® Hi-Gloss NTA-5	Methacrylates	Non-transparent automotive body components	Automotive

Our innovation pipeline is well stocked. In 2016 it comprised a balanced mixture of well over 500 projects addressing completely new business options as well as securing or enhancing the prospects of existing businesses. Alongside product and process innovations, the focus includes innovative business models and product and process innovations. Our portfolio is aligned to the differing business strategies of the various business entities. In 2016 we fine-tuned the nature and scope of our innovation projects as part of the realignment of our innovation portfolio. Since then, greater priority has been given to larger mid- and long-term projects.

In view of the strategic importance of R&D, we have raised R&D expenses by an average of 3.7 percent since 2011. In 2016, R&D expenses totaled €438 million. In view of our growth strategy, we aim to retain this ambitious level, and to invest more than €4 billion in R&D up to 2025. Our R&D projects are managed using the multi-step Idea-to-Profit process developed by Evonik to support the systematic development of projects right up to profitable commercialization.

R&D expenses



Evonik's global R&D network comprises 35 locations with approximately 2,700 R&D employees. In the past three years, Evonik has also spent €158 million on the construction of laboratory capacity and pilot plants. Examples are the competence center for silanes at the Rheinfelden site in Germany, which was opened in 2016, and the new composites pilot plant for the Crosslinkers Business Line in Marl (Germany).

Acquisition of the Air Products specialty additives business will strengthen Evonik's innovative capacity internationally, particularly in the area of specialty additives. Analogously to Evonik, even before the acquisition, Air Products' business model was characterized by close collaboration with customers in R&D. This provides an excellent boost for Evonik's innovation work as well as its business activities.

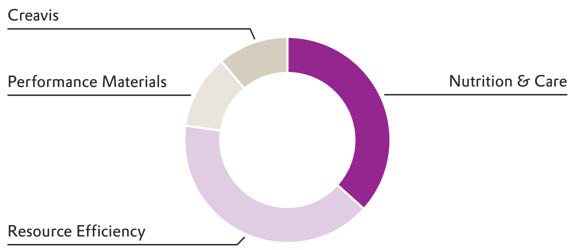
R&D at Evonik

	2016
R&D expenses	€438 million
R&D expenses 2011–2016	Average increase: 4% p. a.
R&D ratio	3.4%
Sales with new products and applications (developed in the past five years)	approx. 10%
Patent-driven sales	56%
No. of new patent applications filed	approx. 230
Patents held and applications filed	approx. 24,500
Registered/pending trademarks	approx. 7,000
R&D employees	approx. 2,700
R&D locations	35

Innovation drivers at Evonik

Around 90 percent of our R&D is performed by our segments. That includes, first and foremost, research geared specifically to their core technologies and markets, and the development of new business. The Nutrition & Care and Resource Efficiency growth segments should receive an above-average share of our R&D funds so that they can enter new markets through innovations and alliances. The Performance Materials segment focuses on process optimization and incremental product improvements. In addition, R&D is driven forward by Creavis, our strategic innovation unit. Working closely with the segments, Creavis is engaged in research into new high-tech areas outside Evonik's present business portfolio. It concentrates on mid- and long-term projects, which are driven forward in a variety of ways. Its principal areas of focus are Evonik's strategic growth fields, and its work is linked to the segments' R&D activities. Examples are 3D printing (additive manufacturing) in the Smart Materials growth field, which covers high-margin products with a clear growth trend. While the Resource Efficiency segment is systematically extending Evonik's market-leading position in sintering technology through new products, applications and alliances, Creavis works on solving problems in other technologies and on completely new technological approaches.

Breakdown of R&D expenses



On the basis of identified potential in the strategic growth fields, Creavis sets up project houses. These spend three years exploring an area of innovation in conjunction with the segments and external experts. For example, the Medical Devices Project House in the Healthcare Solutions growth field is currently working on new solutions for medical technology and extending Evonik's competence in biomaterials and polymers. In particular, it is addressing applications in implantology. The Composites Project House ended in spring 2016. Notable successes were materials and processes that enable automated production of composites at competitive prices. When the scheduled period for this project house ended, the new materials and system solutions were integrated into the Resource Efficiency and Performance Materials segments.

As a general rule, we connect the chemical expertise available in the Evonik Group with our competence in process technology and engineering at an early stage in projects. This facilitates rapid transfer of new processes to efficient industrial production.

Other key success factors for our R&D are close collaboration with customers and networking with external partners. The Industry Cross Innovation (IXI) department at Corporate Innovation brokers contact to new markets of potential interest for Evonik. In this way, market-driven projects are identified in cooperation with a variety of sectors with which we do not yet have direct customer relationships. IXI thus secures strategic innovation alliances, ensures timely identification of new markets, and makes an important contribution to the growth of the company. New alliances were established with a range of companies in 2016. These show how we can use cross-sector collaboration and bundle competences along the value chain to tap into marketable solutions with and for our partners.

Evonik also obtains access to innovative technologies and new business options through its corporate venture capital activities, which were extended selectively in 2016. We invest specifically in specialized technology funds and promising start-ups of strategic relevance to Evonik. This gives us an insight into innovative technologies and business activities that fit our growth strategy at a very early stage of development. New products and technologies are developed in joint projects. In this way we speed up our innovative process. Evonik has been involved in the venture capital business since 2012 and has made 15 investments in this time.

Evonik Venture Capital: New investments in 2016

Name	Headquarters	Technology/business model	Strategic focus on the following Evonik competencies
Vivasure Medical Limited	Galway (Ireland)	Vivasure has developed a technology platform that is the only approved, entirely synthetic technology allowing fully bioabsorable, sutureless closure of large-bore arteriotomies.	Vivasure Medical uses the bioabsorbable polymer RESOMER®, which is already established for numerous applications. The company has an excellent strategic fit with Evonik's expertise in healthcare and medical technology.
Nanotech Industrial Solutions, Inc.	Avenel (New Jersey, USA)	Nanotech Industrial Solutions operates in the lubricant additives market. It specializes in improving performance and minimizing wear.	Nanotech Industrial Solutions provides a new technology platform for lubricant additives and is therefore a good complement to Evonik's competencies as the technology leader in oil additives.
Hosen Capital Fund III	Beijing (China)	Hosen is a Chinese venture capital fund that focuses on investment along the value chain in the Chinese food and agriculture sectors.	By investing in the Hosen Capital Fund III, Evonik has increased its venture capital activities in Asia. The strategic investment in Hosen offers insights and an understanding of the opportunities offered by the dynamic change in the Chinese food and agriculture sector.

We also cooperate with research institutes, universities and other industrial companies so that the latest findings in chemistry, biology and physics can rapidly be transported into our company, and to foster science and education. Through strategic partnerships we are linked to leading universities in the USA, China, and Saudi Arabia, and to Singapore's state-run research agency (A*STAR). In 2016 Evonik extended its partnership with the Ruhr University in Bochum (Germany), where it is sponsoring a chair in organic chemistry for five years. Our support for our established partnership with the University of Duisburg-Essen in Germany comprises a junior professorship, ten scholarships for doctoral candidates and joint projects. In addition, we are a preferred partner of Munich Technical University.

The Evonik Meets Science forum is held regularly in Germany, China, Japan and the USA to strengthen networking with leading international research scientists. At these forums, our experts engage in discussion with leading scientists from a wide range of disciplines and institutions and present their joint research findings.

We regard our innovation culture, which is encouraged and brought to life through our R&D activities, as a major factor in our innovative capability. It determines whether—and how fast—employees are able to identify and drive forward good ideas, and convert them into additional sales and earnings. Alongside commitment, passion and stamina, that entails the strength to end R&D projects if their prospects of success are too low, as well as a constructive attitude to mistakes. We therefore regard Evonik as an open, learning company.

To reinforce the innovation culture and open innovation process within Evonik, the Entrepreneurship Award was presented for the first time for ideas submitted to a Global Ideation Jam.

A survey conducted for Evonik in 2016 highlights our commitment to research & development and its success. More than 2,000 people worldwide were surveyed, including customers, suppliers, investors, politicians, journalists, scientists and employees. Nearly half of those surveyed by the forsa opinion poll company believe that Evonik can realize its vision of becoming one of the world's most innovative companies. 78 percent consider that Evonik is already an "innovative" or even "very innovative" company.

Focus on sustainability

Sustainability is an important element in our corporate culture and our innovation culture. As a specialty chemicals company, we want to provide solutions that balance social, ecological and economic aspects—in collaboration with our customers. We are therefore increasingly focusing our innovation pipeline on products for applications that make efficient use of resources. Our market-oriented R&D plays a key role in improving the ecological footprint of our customers still further and differentiating us from our competitors.

Our commitment to even more innovations that make a contribution to sustainable development is underpinned by inclusion for the first time in the renowned Dow Jones Sustainability Index (DSJI) World, and the DSJI Europe in fall 2016. Evonik achieved particularly high scores on all environmentally related criteria. Products singled out in this context were CALOSTAT® (an insulating material based on silicon dioxide), SEPURAN® Noble (highly selective membranes for efficient extraction of helium from natural gas and process gases), and VISCOPLEX® 12-199 (an oil additive that improves the viscosity index and reduces fuel consumption).

Evonik's innovative capability is also shown by the German Sustainability Award 2016 in the research category, which went to a Creavis project. In collaboration with Process Technology, Creavis developed a new production process for thermoelectric generators (TEGs) to utilize exhaust heat. The process reduces production costs by up to 70 percent. TEGs can help improve fuel economy in vehicles by enhancing the efficiency of alternators. In the steel, aluminum and glass industries TEGs can harvest heat radiated by semi-finished products and exhaust gas systems.

Market-oriented research & development

In 2016 the first products aligned to our R&D growth fields were developed to market maturity. Examples are biosurfactants, a new class of bio-based surfactants with enhanced properties that are produced entirely biologically.

The **Nutrition & Care segment** made considerable progress in extending its product portfolio in our growth fields. That included supplementing its in-house research competence through acquisitions and a new joint venture. The new expertise gained in this way should speed up market access.

- By acquiring the probiotic business of the Spanish company NOREL, a leading supplier of probiotics, the Nutrition & Care segment has stepped up its research in this field. Probiotics are feed additives that facilitate largely antibiotic-free livestock farming and thus make a major contribution to healthy and sustainable nutrition. They are a key driver of the Sustainable Nutrition growth field.
- The acquisition of the biotech company Transferra Nanosciences Inc. will drive forward development in the Healthcare Solutions growth field. Transferra has special expertise in liposomal drug delivery systems, paving the way for new developments based on our combined expertise.
- R&D in the Advanced Food Ingredients growth field has been enhanced by acquiring MedPalett AS, a Norwegian producer of ingredients containing anthocyanins. Together with Evonik's expertise in the production of delayed release systems, this opens the way for the development of new neutraceuticals geared to preventing cardiovascular disease.
- The joint venture RSC Evonik Sweeteners Ltd., Bangkok (Thailand), which was established in 2015 by Evonik and a local sugar producer, opened a pilot plant for the production of isomalt at a site in Ban Pong in 2016. The low-cost production process developed by Evonik enables the Advanced Food Ingredients growth field to meet rising demand in Asia for reduced-sugar, low-calorie food.

In the Smart Materials growth field, the **Resource Efficiency segment** drove forward its commitment to 3D printing in 2016. This segment is participating in the Open Platform Program of HP Inc. and is developing new custom-tailored powders for the HP Multi Jet Fusion™ technology. Evonik expects this to bring a further boost to the development of additive manufacturing towards serial production of components, for example for the automotive or aviation industry. Evonik has broadened its portfolio of specialties for 3D printing by adding VESTOSINT 3D Z2773.

In 2016 an additive to reduce the rolling resistance of tires won the the in-house Innovation Award in the category Product Development. POLYVEST™ ST is another decisive step in the optimization of the existing additive system for "green" tires. This new additive has the potential to bring a further significant reduction in the fuel consumption of automobiles without reducing the abrasion resistance and wet grip of the tires.

The **Performance Materials segment** has launched a product that supports the trend in the automotive industry to high-gloss black body components at the front and rear of vehicles. The required specifications focus on mechanical properties: weather resistance, scratch resistance and intensity of shade. PLEXIGLAS® Hi-Gloss NTA-5 meets all these requirements. In view of its balanced properties, this new product is especially suitable for the production of components such as radiator grilles, air vents, trims, mirror housings and pillar trims.

The Performance Materials segment is also working on a new process to produce MMA from ethylene. This promises highly efficient use of raw materials and energy and sets new standards for the avoidance of emissions and waste. This novel process is already proving its robustness in pilot trials and meets the performance expectations.

5. Sustainability

Responsible corporate management

Sustainability is a core element in our corporate claim "Power to create." Our products and solutions are used in many areas that play a part in improving people's lives and making efficient use of scarce resources. In this way, we support the 17 goals for sustainable development set by the United Nations, to be achieved by 2030.

Evonik is committed to the ten principles of the UN Global Compact and is guided by the International Labour Standards issued by the International Labour Organization (ILO), and the Guidelines for Multinational Enterprises published by the Organisation for Economic Cooperation and Development (OECD). In addition, we are involved in many networks such as the Chemie³ sustainability initiative of the German chemical industry, and the World Business Council for Sustainable Development (WBCSD). Together with our Code of Conduct, our Global Social Policy (GSP) and our Environment, Safety, Health and Quality (ESHQ) Values provide a framework for responsible corporate management. In addition, in summer 2016 the Executive Board adopted a Policy Statement on Human Rights. We are also committed to the WBCSD's "Vision 2050," which describes the pathway to achieving a sustainable world with around 9 billion people living well within the limits of the planet by 2050.

We are convinced that sustainable business activities and responsible conduct by our management and staff at all levels are vital for the future of our company. Our sustainability strategy therefore takes up the growth markets identified in our corporate strategy—health, nutrition, and resource efficiency—and defines areas of action geared to balanced management of economic, ecological and social factors.

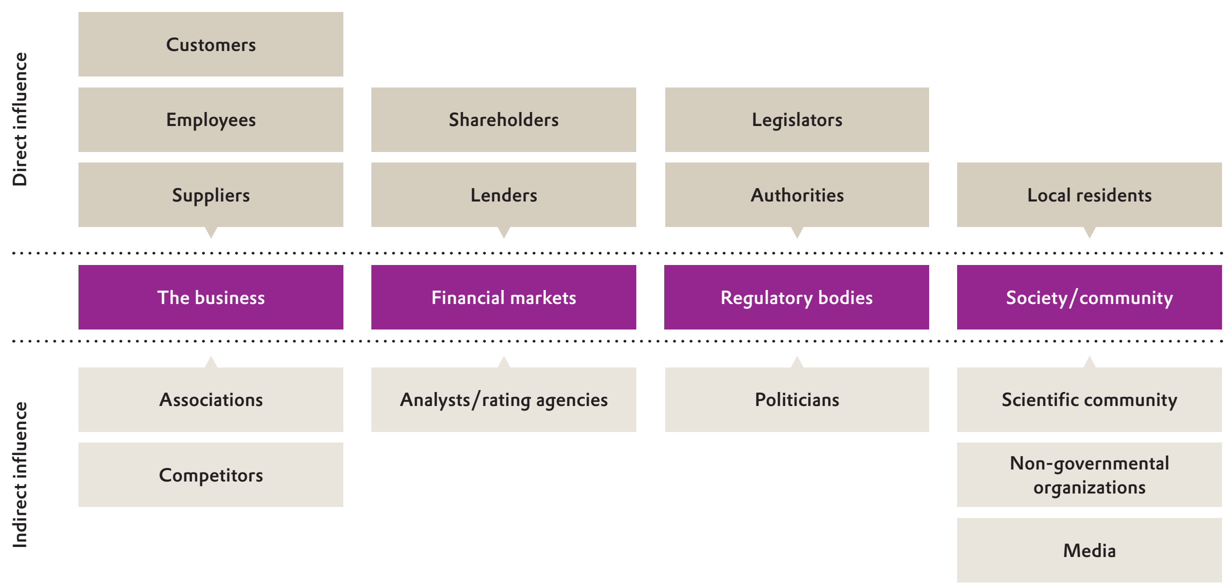
Sustainability management at Evonik

The Executive Board bears overall responsibility for sustainability. Direct responsibility is assigned to the Chief Human Resources Officer, who is also responsible for all climate-related aspects at Evonik. The Corporate Responsibility division sets the strategic framework for sustainability management and coordinates the Group-wide implementation of the strategy in close collaboration with other central functions and the segments.

More intensive dialogue with stakeholder groups

Dialogue with our stakeholders is important to us. It facilitates timely identification of trends and future requirements and gives us a better understanding of different perspectives. To further improve this exchange, we undertook a renewed analysis and systematic classification of the stakeholders of relevance for Evonik. The stakeholder groups were then bundled on the basis of issues and further differentiated according to whether they have a direct or indirect influence on Evonik.

Evonik's stakeholder groups



One focus of our stakeholder dialogue in 2016 was "healthy nutrition for a sustainable world." The Corporate Responsibility division and Animal Nutrition Business Line held a discussion on this in Berlin with around 80 stakeholders from politics, non-governmental organizations, trade associations, universities, customers and suppliers. The findings are used directly in sustainability activities, especially the Animal Nutrition Business Line.

Important feedback about our sustainability performance also comes from talking with members of the investment community. Alongside financial criteria, more and more investors include ecological, social and governance factors in their investment decisions.

Driving forward the sustainability analysis of our business

Demand from our customers for products and solutions that balance economic, ecological and social factors is rising steadily. In many markets, sustainability is becoming an additional benefit that can clinch purchasing decisions so it is increasingly relevant for our business. Accordingly, our market-oriented research & development pays special attention to sustainability and efficient use of resources. Evonik therefore has a good basis for innovative solutions that will secure its market-leading positions and give it access to new growth markets that make a tangible contribution to sustainable development.

To make the contribution made by sustainable products measurable so that it can be managed, we drove forward the sustainability analysis of our business in 2016. Moreover, we improved our method and had it validated by independent auditors.

Evonik included in the Dow Jones Sustainability Indices World and Europe for the first time

Evonik is included in the sustainability-oriented index families FTSE4Good Global and STOXX® Global ESG Leaders. Important sustainability rating agencies such as Oekom Research and Sustainalytics also rank the company among the leaders in the chemical sector.

Since Evonik's free float increased considerably from 14 percent to 32 percent at year-end 2015, the company was invited to take part in the DJSI World index for the first time in 2016. We gained a place in both the DJSI World and the DJSI Europe—a milestone for our sustainability management. The company achieved particularly high scores for all environmentally related criteria.

In fall 2016 Evonik received the German Sustainability Award in the "research" category, for a new production process developed by Evonik Creavis GmbH for thermoelectric generators. In addition, Evonik was one of the top 5 nominees in the category "Germany's most sustainable large companies 2016".

These accolades are a further incentive for us to drive forward our sustainability activities.

5.1 Employees

Slight increase in headcount

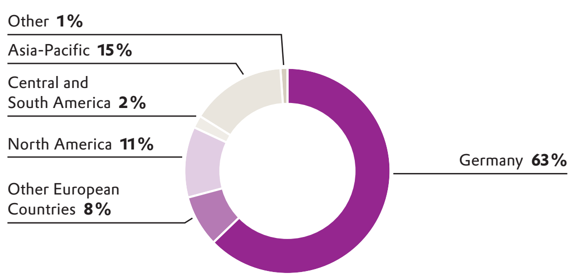
At year-end 2016, the Evonik Group had 34,351 employees, 775 more than at year-end 2015. The increase resulted principally from acquisitions and investment in growth projects in the Nutrition & Care and Resource Efficiency segments. Implementation of the Administration Excellence program to enhance efficiency and some small optimization programs in the chemical segments had a counter-effect.

Employees by segment

	Dec. 31, 2016	Dec. 31, 2015
Nutrition & Care	7,594	7,165
Resource Efficiency	8,928	8,662
Performance Materials	4,393	4,380
Services	12,892	12,668
Other operations	544	701
Evonik	**34,351**	**33,576**

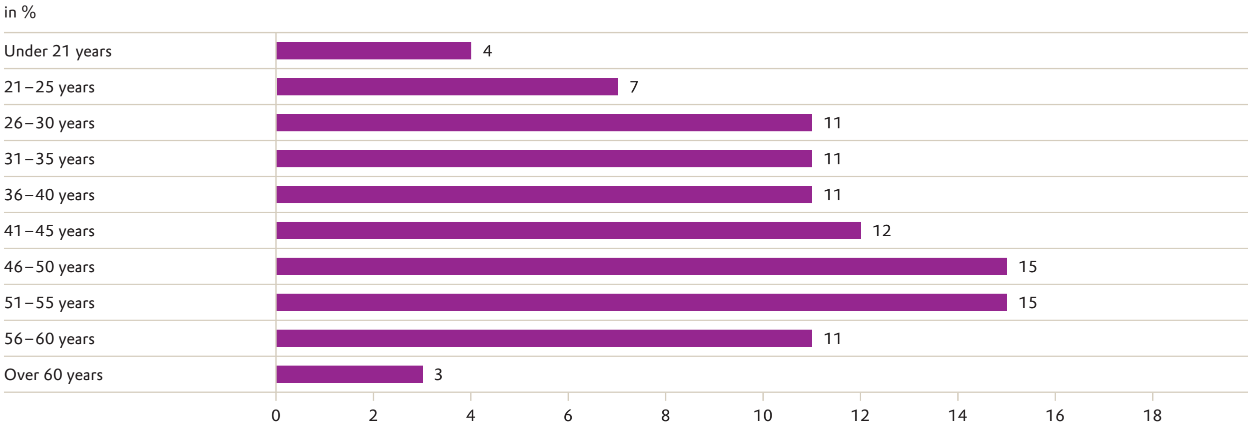
Nearly two-thirds of our workforce is employed in Germany. In line with our global focus, other significant areas of employment are the Asia-Pacific region (2016: 15 percent) and North America (2016: 11 percent).

Employees by region



Around 25 percent of employees are female (2015: around 24 percent). The age structure is still biased towards the 46+ age group, which accounts for about 44 percent of employees (2015: 44 percent). The average age of our employees was 41.8 years in 2016 (2015: 41.7 years).

Age structure in the Evonik Group



Active integration of the Air Products specialty additives business

Signature of the purchase agreement for the Air Products specialty additives business in May 2016 marked the start of work on the upcoming integration of around 1,100 employees in 19 countries. This comprised preparations for transfers of undertaking, offers of employment contracts, and providing functioning processes such as payroll accounting and management of job applications. Another milestone was assigning all employees to the new organizational structure. Closure of the transaction on January 3, 2017 has been followed by final integration of the new employees. This involves including them in incentive systems, job evaluations, and training and personnel development measures as well as fostering cultural integration.

creating. together.—a joint framework for HR work in the Evonik Group

Our employees are a key factor in the successful and sustainable implementation of our corporate strategy. Innovative strength and entrepreneurship are important drivers that enable us to meet our goals of growth and an increase in efficiency.

Our HR strategy builds on common and reliable corporate values and enables us to leverage potential for synergies throughout the Group, for example through our uniform employer brand, talent programs and opportunities for development. We offer guidance and at the same time provide sufficient scope for differentiation by our segments where necessary.

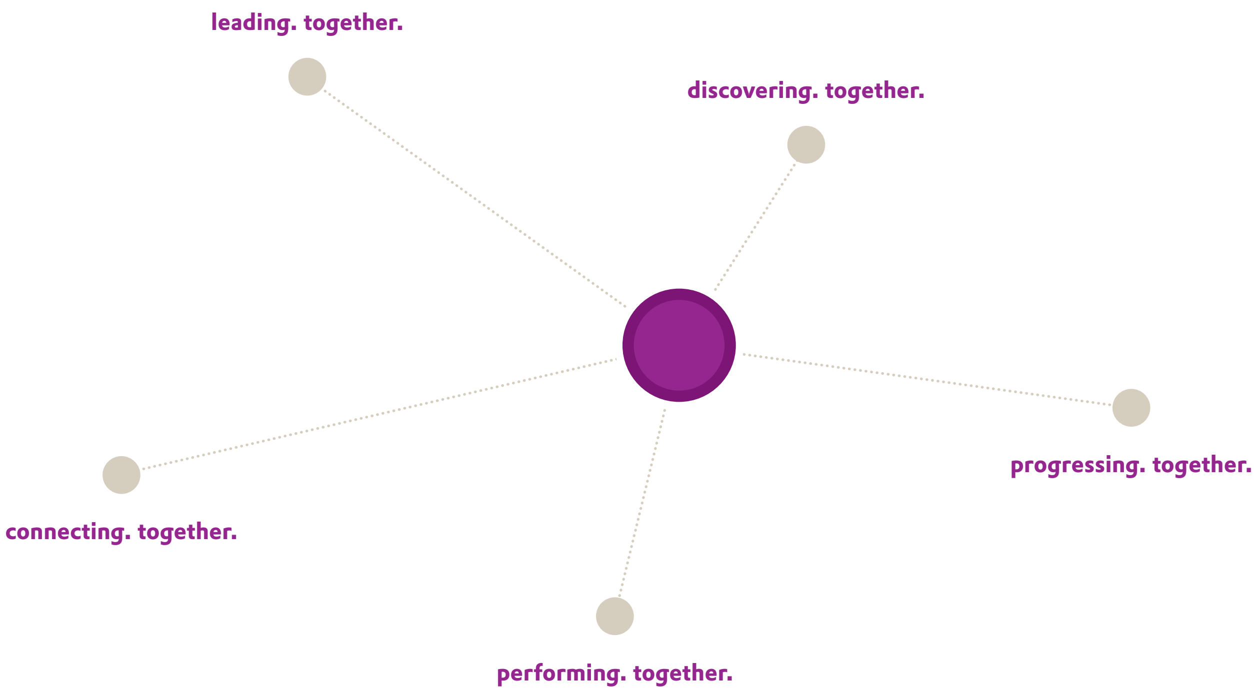
Our HR strategy is geared to a healthy performance culture, together with dialogue based on partnership and excellence in human resources processes. The strategic focus of our human resources work is focused on the principles of "Attract" (discovering. together.), "Develop" (progressing. together.), "Perform" (performing. together.), "Retain" (connecting. together.), and "Lead" (leading. together.).

In our annual strategy review we defined and implemented action for these key areas in consultation with the operational business entities and regional organizations, taking into account relevant political and societal developments. Systematically addressing these areas sustains our attractiveness as an employer and the training and motivation of our employees.

Attract—discovering. together.

The focus here is on positioning Evonik globally as a strong employer brand. Our aim is to attract creative and competent people with high potential to Evonik. Alongside various conventional and modern recruiting methods, activities include ensuring that new employees and executives get off to a good start in the company.

HR strategy



Employer branding—Positioning Evonik as an attractive employer

A strong and uniform global employer brand is an important success factor in the competition to attract the most talented employees and executives. Our promise "Exploring opportunities. Growing together." is an expression of our values as an employer: wide-ranging global development opportunities and team spirit.

Our employer branding therefore uses creative and unusual methods. Our "Elevator Pitch" at six German universities in fall 2016 comprised a challenge to give spontaneous presentations on scientific issues. Rewards for taking part included professional presentation coaching. In addition, participants who took part in a voluntary public voting process could win a trip to Evonik's site in Singapore. 84 of the 360 students who took up the challenge entered their video for the vote.

Further, through our collaboration with student networks we linked the Enactus team at RWTH Aachen (Germany) to the organization Utho Ngathi - südliches Afrika e. V., and our Animal Nutrition Business Line. Together, these partners built a solar-powered fish farm in Zambia. The student team entered this in the Enactus World Cup in Toronto (Canada) in September 2016 and secured third place out of 3,500 competitors from 36 countries.

A variety of awards and surveys confirm that Evonik is already one of Germany's most attractive employers. In a study conducted by DEUTSCHLAND TEST and Focus Money magazine, Evonik was ranked as the best company in the German chemical industry for vocational training. In China, Evonik was once again included in the list of the most popular employers published by the Top Employer Institute in 2016.

Modern recruiting tools extended

To attract potential new employees it is also important to establish contact to relevant target groups at an early stage. We therefore cooperate with selected universities and higher education institutes around the world. These are selected in consultation with the relevant specialist departments.

In Germany, for example, we support particularly committed students at 13 universities as part of the German government's "Deutschlandstipendium" program. This includes offering opportunities for internships and supporting the preparation of their dissertations and theses through specific projects at Evonik.

Through the Evonik Perspectives program we remain in contact with students whose performance in internships is above average. Many of the participants in this program join Evonik when they finish their studies.

In 2016 we continued our global talent recruitment initiative RISE to attract talented external candidates for key positions and management posts at Evonik. Alongside suitability for a specific position, we pay special attention to the potential to take on more demanding assignments. When recruiting new employees for the future we also pay increased attention to diversity. Executives from various organizational units and regions have been trained in our Group-wide talent indicators and modern interview techniques to enhance their ability to spot talent.

Develop—progressing. together.

The aim here is to recognize potentials and talented employees in order to stretch them and foster their development. We take an individual approach to employees and their needs and offer them opportunities for development. In this way we lay the foundations for our sustained policy of filling key positions from within the company.

Vocational and further training for present and future specialists

Evonik still recruits specialists from within its own ranks and is committed to supporting their vocational training and ongoing development. The number of apprentices and, above all, the number of apprentices hired by us at the end of their training is based on the personnel requirements of the individual organizational units. In this way, we are able to provide clear future perspectives for new hires after successful completion of their apprenticeship. At the same time, it enables us to selectively address demographic change.

At year-end 2016, we had around 1,950 apprentices at 17 sites in Germany on more than 40 vocational training courses and combined vocational training and study programs. Around 390 of them were being trained on behalf of other companies. About 530 new apprentices, including 11 refugees, embarked on training at Evonik in 2016. Apprentices accounted for around 8 percent of our workforce in Germany, which is still well above the national average. At year-end 2016, we also had around 51 places on the “Start in den Beruf” pre-apprenticeship project, including 11 for young refugees. A total of 90 pre-training places were offered for the 2016/2017 academic year, including 20 for refugees. Overall, we invested some €69 million in vocational training in 2016.

Continuous professional development of our skilled personnel geared specifically to the needs of the company is another core element of our HR activities. A large number of training opportunities are offered either centrally or on a decentralized basis by the segments and at individual sites.

Talent management—Developing tomorrow’s executives

Our talent management develops employees with potential for key positions, across hierarchical levels, functions and organizational units.

A clear annual process comprising personnel planning conferences with the involvement of the Executive Board ensures a continuous Group-wide, business-oriented exchange on talents, functions and succession scenarios. Alongside demanding leadership and management programs in collaboration with major business schools such as IMD in Lausanne (Switzerland), we have established an additional element geared to ethical aspects, values and character development.

In 2016 we also piloted a program to discuss current social and political developments against the background of the historical responsibility of Evonik’s predecessor companies. The aim is to reflect on the responsibility and role of companies and managers in politics and society and discuss options for personal behavior. The underlying concept is that strong personalities make strong leaders.

Perform—performing. together.

Here the focus is on a healthy performance culture as the basis for the company’s success and the personal motivation of every individual employee. Fair, performance-related remuneration plays a central role in this, together with the annual performance and development review.

In 2016, personnel expenses, including social security contributions and pension expense, were around the prior-year level at €3,128 million (2015: €3,121 million). Personnel expenses were therefore 24.6 percent of sales (2015: 23.1 percent).

Remuneration—Uniform global evaluation criteria

When shaping remuneration systems, Evonik believes it is very important to offer specialists and executives market-oriented and performance-related salaries based on uniform global evaluation criteria. The remuneration of many members of our workforce includes bonus payments that are based on the company’s business performance or the personal performance of the employee.

In addition, three years ago we introduced the “Share” employee share program for personnel in Germany, Belgium and the USA. The participation rate rose to a new record of around 38 percent in 2016. Participation was particularly high in Germany, where it increased for the third time in succession to just under 43 percent. Overall, more than around 10,000 employees worldwide, including apprentices, took part in the “Share” program. They purchased around 380,000 shares and were allocated around 130,000 bonus shares through the company’s subsidy program.

Pensions form part of overall compensation

Evonik helps the majority of employees provide for security after retirement—either directly or through pension contributions to external institutions. The arrangements are based on the economic, legal and tax situation in the various countries. Employer contributions to pension plans are an important element in competitive overall remuneration packages, especially in Germany, the USA and some European countries.

Retain—connecting. together.

In this area, we actively encourage diversity as a basis for our joint success. Thanks to our corporate values, which foster identification with the Group, and a common corporate culture that is experienced by every employee, we achieve a high level of employee retention in spite of the necessary change processes.

Diversity is decisive

Diversity has played an important role at Evonik for years. We see diversity of nationality, gender, educational background and professional experience, as well as a wide-ranging age structure in the workforce as a clear competitive advantage. The starting point is our diversity strategy, and the living proof comes from specific measures that impact our company on a day-to-day basis. Gender networks like WoMentoring and clear diversity targets for executives are already routine in the best sense of the word.

Diversity is even clearer in the day-to-day leadership of our top management through the newly established Diversity Council. This high-caliber body drives forward our diversity strategy in alignment with our management structure and bundles our Group-wide activities to ensure focused and future-oriented implementation of efficient and visible measures.

Employee survey—Follow-up activities

Our employee survey, which is held every three years, is an important indicator of our employees' identification with the company and of our tangible corporate culture. A new element in the survey conducted in November 2015 was Leadership Quality Index, which assesses employees' perception of leadership quality. The index score was 143 out of a possible 200 points. The Commitment Index was also good at 151.

However, the feedback from our employees also showed four core areas that need to be improved. We are working on these at segment, regional and Group level.

In 2016 the follow-up to the survey focused on ensuring that all employees are included in the development of measures to establish a Group-wide culture. Managers are working with employees at all levels to develop individual measures of relevance to them. At year-end 2016 we were working on around 1,970 measures across organizational boundaries in our segments and regions.

In parallel with this, we launched an employee survey site to present the segment and regional results, measures currently being implemented, and best practices from all areas of the Group in order to enhance transparency and provide up-to-date information. With a view to our living corporate culture, in 2017 we will be concentrating on conducting an interim survey (known as a pulse check) of a random sample of employees to obtain feedback on awareness of the measures being taken and whether they are seen as relevant.

Work-life balance

Healthy and motivated employees are vital for Evonik's success and an integral part of our corporate responsibility. Our well@work program covers all aspects that maintain and improve the employability and quality of life of our employees. For example, in the area of health management seminars on a healthy diet, handling stress and appropriate physical exercise are organized throughout Germany. Evonik also provides a wide range of sports activities for employees—from yoga to conventional gym classes.

Combining work and family life has also had very high priority for Evonik for years and is part of our overall well@work approach. The regular review of our performance and the award of the berufundfamilie certificate by the Hertie Foundation in 2016 for the period up to 2018 confirm our ongoing commitment to a human resources policy that is family-friendly and geared to different phases of people's lives. Core elements of this policy are support in child care and flexible worktime models.

Lead—leading. together.

In this area, Evonik builds on a uniform and concrete Group-wide understanding of leadership centered on a trustful relationship between employees and managers.

Our aim is to ensure that sincere and effective leadership is a distinctive quality at all Evonik sites. We have therefore harmonized global training to prepare staff for leadership roles in order to establish high-quality leadership as a hallmark of Evonik.

Strong leaders are essential for value-oriented management of the company. In 2016, a further 25 corporate talents therefore made a contribution to the housing construction project in Vietnam in collaboration with Habitat for Humanity. This was also an opportunity for them to review their personal standards. Through a program organized in cooperation with the protestant and catholic churches, 30 corporate talents explore topics such as ethics, values and morality. In addition, this program has been piloted for international groups with 15 participants from around the world in a fascinating intercultural enhancement titled “Taking the lead—with passion and value orientation.”

5.2 Environment, safety and health

Ambitious environmental targets

Protecting our environment and the climate are major global challenges of our age, along with the efficient use of limited natural resources in the face of the growing world population and increasing affluence. Maintaining the natural basis for future generations is part of our corporate responsibility. Key areas of action in the ecological arena can be derived from efficiency requirements. For us, that principally means reducing energy consumption, minimizing emissions into the air and water, and efficient water management.

We also develop products that contribute to forging a clear link between economic success and ecological progress. However, improving our ecological footprint and remaining internationally competitive are also dependent on public acceptance and political opportunity. These conditions are reflected in our strategic focus.

We have set demanding environmental targets for the period 2013–2020 (reference base: 2012):

- Reduce specific greenhouse gas emissions[1] by 12 percent
- Reduce specific water intake[2] by 10 percent

In sustainable waste management we are continuing our efforts to make more efficient use of resources.

In 2016, we made further progress in reducing emissions at all stages in the value chain. A functioning environmental management system is the basis for this. Integrating it into our corporate processes is an ongoing task and an integral part of our sustainability management. At Evonik, accountability for plants, technical systems, products and processes is therefore assigned to the responsible members of staff, for example, through job descriptions and letters of delegation.

Our environment, safety, health and quality management system is binding for the entire Evonik Group. In addition, we require our production sites to be validated as conforming to the internationally recognized environmental management standard ISO 14001. As a result of the necessary start-up and preparatory phase for new units, the proportion of output covered by ISO 14001 validation varies. However, it is always between 95 and 100 percent. Audits are conducted to monitor implementation by the segments, regions and sites. Alongside audits on specific issues, we conducted 60 ESHQ audits worldwide in 2016.

Safety as a management task

We take our responsibility in the field of safety particularly seriously—during production and while shipping products to our customers. Our objective is to protect our employees and local residents as well as the environment from any potential negative impact of our activities. The Group-wide “Safety at Evonik” initiative has become firmly established as an ongoing process to develop our safety culture and a fundamental management approach to all aspects of occupational and traffic safety. Our guiding principles for safety and our safety culture provide a structure and guidance for our corporate targets and activities. Binding principles are applicable for all employees, from local personnel to our management, and provide clear and measurable guidance for their personal conduct and leadership.

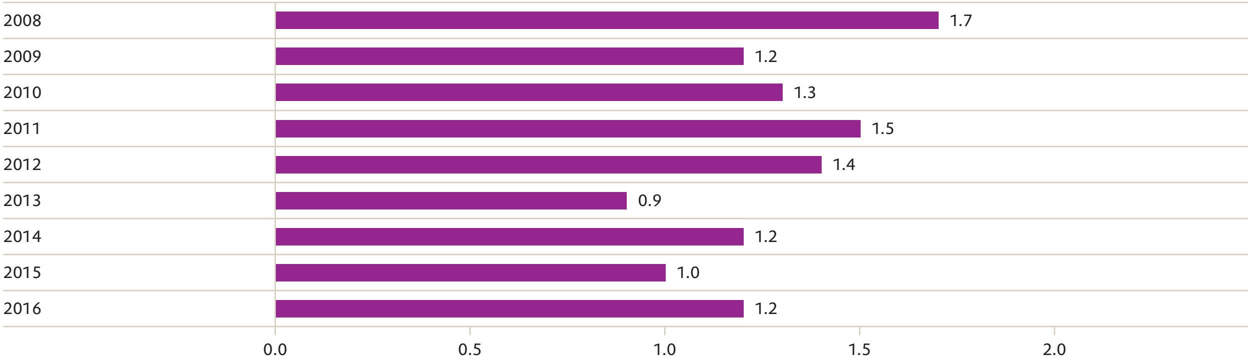
Accident frequency indicator deteriorated slightly but was within the defined limit

A special focus of our initiative is the safety of our employees—both at work and on the way to and from work—and the safety of contractors working at our sites. In 2016, the **accident frequency indicator**[3] for our employees was 1.2, which was within our defined maximum limit of 1.3. However, it deteriorated slightly compared with the previous year (1.0). Discussing the accidents provided valuable pointers for future accident prevention, which have been communicated to our employees.

[1] Energy- and process-related emissions as defined by the Greenhouse Gas Protocol. Scope 2 emissions measured using the market-based method.
[2] Excluding site-specific factors in the use of surface water or groundwater.
[3] Number of accidents involving Evonik employees and contractors’ employees under Evonik’s direct supervision per 1 million working hours.

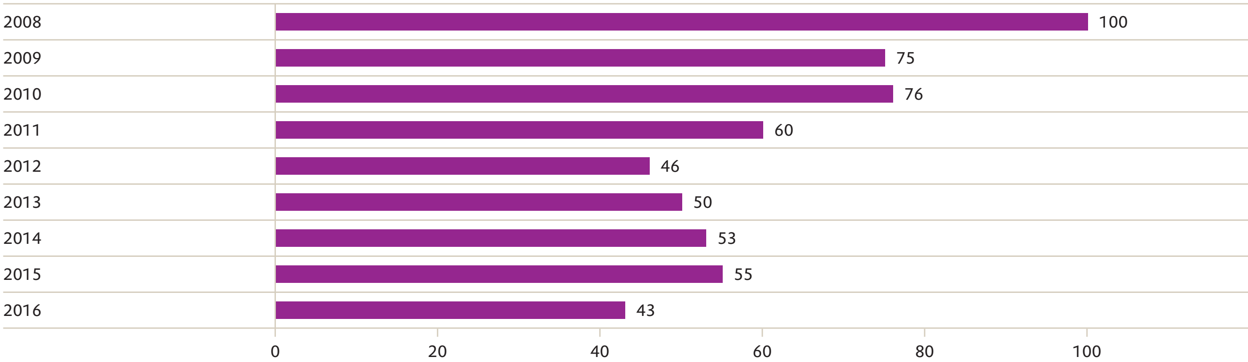
Accident frequency indicator

Number of accidents per 1 million working hours



Incident frequency indicator

Number of incidents per 1 million working hours, taking 2008 as the reference base



There were no fatal accidents at work involving our employees or contractors at our sites in 2016, nor were there any fatal traffic accidents involving employees on the way to or from work or on business trips.

The accident frequency indicator for contractors (number of work-related accidents involving non-Evonik employees resulting in absence from work per 1 million working hours) increased slightly year-on-year to 3.1 (2015: 2.9).

Considerable improvement in incident frequency indicator

Process safety at our plants is another focus of our initiative. The concepts to prevent fire and the release of hazardous substances are regularly analyzed in detail. The aim is timely identification of risks so we can develop appropriate measures that reliably prevent these risks. We monitor and evaluate plant safety using the **incident frequency indicator**[1], which covers incidents involving the release of substances, fire or explosion, even if there is little or no damage (process safety performance indicator defined by the European Chemical Industry Council, Cefic). This indicator improved considerably to 43 points in 2016 (2015: 55), and was also well within our ceiling of a maximum of 48 points.

[1] Number of incidents per 1 million hours worked in the production facilities operated by the segments, taking 2008 as the reference base (expressed in percentage points: 2008 = 100).

The measures taken in 2015 and 2016 are therefore having an effect. In particular, the process safety measures introduced in 2016 are to be stepped up to support the positive development in 2017.

Another common indicator of plant safety is also used in external comparisons. This is defined as the number of incidents per 1 million hours worked by all employees in the Group. Evonik's performance rate by this indicator was 1.0 (2015: 1.3).

To ensure that our safety concepts to prevent the release of substances, fire and explosion meet uniformly high safety standards throughout the world, they are developed with the involvement of selected and experienced safety experts, who are assigned to our Global Process Safety Competence Center (GPSC) and form the Global Safety Expert Network led by the GPSC.

Safety targets for 2017

We set annual limits for occupational safety and plant safety indicators. For 2017 these are:

- The accident frequency rate should not exceed 1.3.
- Incident frequency should not exceed 48, taking 2008 as the reference base.

Carbon Disclosure Project—Climate reporting at a high level

Corporate growth potential arises from the systematic alignment of products and services to global megatrends. That includes the challenge of global climate change. Many innovative products from Evonik help improve energy efficiency at subsequent stages in the value chain, reduce the use of resources, and cut emissions. Our lubricant additives are a good example. Hydraulic fluids containing our DYNAVIS® additives can increase the productivity of excavators by up to 30 percent and at the same time cut fuel consumption by up to 30 percent. Companies that are interested can calculate the exact savings for themselves using a special calculator on the DYNAVIS® website.

We also strive to achieve a constant improvement in our reporting on key environmental indicators, and maintain an intensive dialogue with rating agencies such as the Carbon Disclosure Project. Every year, the CDP compiles detailed data on the greenhouse gas emissions and energy consumption of companies worldwide. It also evaluates the opportunities and risks of climate change for their business activities and how the management takes them into account in its strategy. The CDP currently meets the information needs of more than 800 institutional investors with assets under management of over US$100 trillion. The investors use the data to derive a climate risk profile for the companies, which they then use in their investment decisions.

In 2016, we were able to build on the very good results obtained in 2015. With a score of "A–" for climate change reporting, Evonik attained the status of an index/country leader in the MDAX, which positions it among the top 15 percent of the MDAX companies.

Lower CO_2 emissions[1]

CO_2 emissions declined from 9.7 million metric tons in 2015 to 9.4 million metric tons in 2016, although output increased from 10.4 million metric tons to 10.6 million metric tons in this period. The decline in emissions was mainly due to the replacement of a coal-fired power plant by a new, highly efficient gas and steam turbine plant in Marl (Germany) and implementation of measures specifically geared to raising energy efficiency.

The 27 facilities operated by Evonik that fall within the scope of the European Union's Emissions Trading System (EU ETS) emitted 3.7 million metric tons of CO_2 in 2016. The reduction of 0.3 million metric tons in CO_2 emissions compared with 2015 was also principally attributable to the altered fuel mix in Marl.

[1] Direct CO_2 emissions (Scope 1 emissions under the Greenhouse Gas Protocol) come from energy generation and production. Indirect CO_2 emissions (Scope 2 emissions) come from purchased energy. They were measured using the market-based approach.

Environmental protection investment and operating costs

In 2016 we invested €37 million (2015: €43 million) to achieve a further improvement in environmental protection. The year-on-year decline was mainly due to the fact that major investment projects such as expansion of capacity for specialty silica in Ako (Japan) were completed in 2015. Operating costs for environmental protection facilities rose slightly to €292 million in 2016 (2015: €283 million).

Health protection and promotion and medical emergency management go hand-in-hand

To fulfill our responsibility to our employees, we have a wide range of measures to protect and maintain their health. These have a firm place in our Group-wide well@work program[1].

Evonik's workplace health protection and promotion measures focus first and foremost on encouraging a healthy lifestyle with offerings in the areas of exercise, a healthy diet, work-life balance, and preventing infections and addiction. To supplement this, special annual health campaigns are devoted to different topics and the company offers voluntary preventive measures. In 2016, one area of focus in Evonik's health promotion campaigns was the prevention and early diagnosis of diabetes.

Standardized processes based on hazard assessments are used for occupational health management. Potential dangers in the workplace are systematically identified and measures are developed to assure the health and safety of our employees. Their effectiveness is monitored, among other things, by occupational medical examinations.

Medical emergency management at Evonik is based on a global policy that sets out the necessary emergency organization and the equipment and personnel to be provided, taking the regional emergency response infrastructure into account. Exercises are conducted regularly to check the functioning of this system.

Attainment of our health protection goals is measured by the Occupational Health Performance Index, which we introduced in 2013. The index is calculated annually. In 2016 it was 5.5 out of a maximum of 6 points. To ensure that the measures are sustainable, our goal from 2017 is to achieve a continuous score of ≥ 5.

6. Events after the reporting date

See Events after the reporting date in Note 10.6.

[1] See also the section on employees.

7. Opportunity and risk report

7.1 Opportunity and risk management

Risk strategy

Evonik's Group-wide internal opportunity and risk management (referred to generically as risk management in this section) forms a central element in the management of the company. Our risk management includes a risk detection system, which meets the requirements for publicly listed companies. The aims are to identify risks as early as possible and to define measures to counter and minimize them. To ensure optimal use is made of opportunities, these also need to be recognized and tracked from an early stage. We only enter into entrepreneurial risks if we are convinced that in this way we can generate a sustained rise in the value of the company and, at the same time, permanently limit possible negative implications.

Structure and organization of risk management

At Group level, risk management is assigned to the Chief Financial Officer and is organized on a decentralized basis in line with Evonik's organizational structure.

The segments, corporate divisions and service units bear prime responsibility for risk management. That comprises early identification of risks and estimating their implications. Furthermore, suitable preventive and control measures have to be introduced and internal communication of risks must be ensured. Risk coordinators in the organizational units are responsible for agreeing on the relevant risk management activities. At all levels in the Group, systematic and timely risk reporting is a key element in strategic and operational planning, the preparation of investment decisions, projections, and other management and decision-making processes.

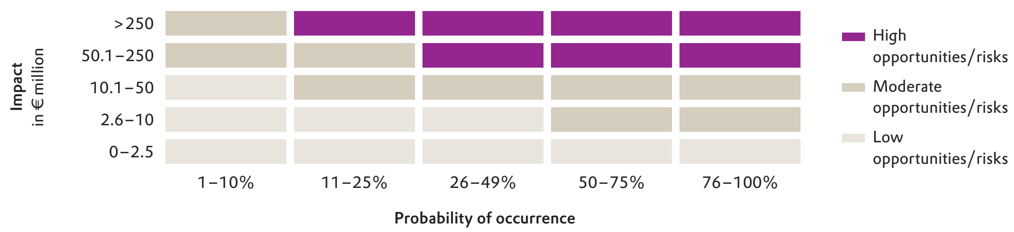
A central Corporate Risk Officer coordinates and oversees the processes and systems. He is the contact for all risk coordinators and is responsible for information, documentation and coordination at Group level. Further responsibilities include ongoing development of the methodology used by the risk management system. The Risk Committee is chaired by the Chief Financial Officer and composed of representatives of the corporate divisions. It validates the Group-wide risk situation and verifies that it is adequately reflected in financial reporting. The Supervisory Board, especially the Audit Committee, oversees the risk management system.

In 2016, the companies included in our risk management system were identical to those in the scope of consolidation for the financial statements. At companies where we do not exert a controlling influence, we implement our risk management requirements primarily through our presence in management and supervisory bodies.

Corporate Audit monitors risk management in our organizational units to make sure they comply with statutory and internal requirements and to ensure continuous improvement of risk management. The risk detection system is included in the annual audit in compliance with the requirements for listed companies. This audit showed that Evonik's risk detection system is suitable for timely identification of risks that could pose a threat to the company's survival.

The risk management system is based on the internationally recognized COSO Enterprise Management standard. It is implemented through a binding Group-wide policy. Individual risks are systematically identified and managed with the aid of special risk management software. Their probability of occurrence and the possible damage (potential impact) are evaluated and documented, together with their expected value (product of probability of occurrence and potential impact). Analogously to current planning, the evaluation is based on a period of three years (mid-term planning). Opportunities and risks are defined as positive and negative deviations from the plan.

Opportunity/risk matrix



The organizational units conduct an extensive annual risk inventory in connection with the mid-term planning process. They are required to provide details of the measures to be taken with regard to the risks identified, introduce them immediately, and track their timely implementation. Internal management (for example, reporting by the Risk Committee) takes a mid-term view. The opportunities and risks identified are classified as low, moderate or high (see opportunity and risk matrix). The evaluation is always based on a net view, in other words, taking into account risk limitation measures. Risk limitation measures can reduce, transfer or avoid gross risks. Common measures include economic counter-action, insurance and the establishment of provisions on the balance sheet.

The risk inventory is supplemented by quarterly reviews of all opportunities and risks relating to the present year to spot changes in the opportunities and risks that have already been identified and identify new risks and opportunities.

The management of risks and opportunities is based on their potential impact and probability of occurrence. All high risks are classified as material individual risks, as are moderate risks with an expected value of over €10 million in the mid term. The expected value is used exclusively as a basis for prioritization and to focus reporting on key issues.

7.2 Overall assessment of opportunities and risks

Given the measures planned and implemented, no risks have been identified that—either individually or in conjunction with other risks—could jeopardize the continued existence of Evonik as a whole, including Evonik Industries AG in its role as the holding company for the Group.

For 2016 we expected slightly more risks than opportunities. During the year, there were some opportunities and risks that canceled each other out. Pleasingly, we were mainly able to realize opportunities in the Resource Efficiency and Performance Materials segments, especially in C_4 chemicals. The development of the Nutrition & Care segment was characterized by considerably more risks than opportunities, especially in the market for amino acids. Key factors relating to the risk categories were the macro-economic environment and the specific market and competitive situation. From the present standpoint, the risks for 2017 again outweigh the potential opportunities, and are slightly higher than in 2016.

Sections 7.3 and 7.4 present the opportunities and risks in each category in descending order of significance for the Evonik Group. Except where otherwise indicated, they apply for all segments.

7.3 Market and competition opportunities and risks

In accordance with our internal management, opportunities and risks in the market and competition category are allocated to risk quantification classes within sub-categories (see chart on page 95). The chart shows the highest class to which an individual risk or opportunity is allocated in each sub-category. Individual opportunities and risks may also be allocated to the lower risk classes. Where two sub-categories have the same profile in the chart, they are ranked first on the basis of opportunities, then listed in descending order, based on their expected impact.

Opportunity and risk classes within the planning/market category

Risks	Sub-category	Opportunities
High	Sales markets	High
High	Financial markets	High
Moderate	Raw material markets	Moderate
Low	Research & development	Moderate
Moderate	Production	Moderate
Moderate	Capital expenditures	Low
Moderate	Other	Low
Low	Human resources	Low
Low	Energy markets	Low
Low	Mergers & acquisitions	Low

High opportunities/risks
Moderate opportunities/risks
Low opportunities/risks

1. Sales markets

Macroeconomic uncertainty is high as a result of recent political developments in Europe and the USA, as well as ongoing geopolitical conflicts. This could bring both opportunities and risks. The risk of sustained economic weakness in growth markets and various European economies, together with lower growth in China and the USA, is seen as a high risk.

Alongside the general demand situation, intensive competition in the various market segments harbors both opportunities and risks. In particular, competitors in low-wage countries increase competitive pressure through new capacities and aggressive pricing policies that can impair our selling prices and volume trends. To counter this we are broadening our foreign production base and gaining access to new markets in high-growth regions such as Asia and South America. The operating units affected also use various methods of increasing customer loyalty to reduce these risks. These include, in particular, strategic research alliances with customers and extending the services offered along the value chain. We are constantly developing attractive and competitive new products and technologies to mitigate the risk that chemical products could be replaced by new, improved or less expensive materials or technologies. Opportunities arise for our business from unmet demand in individual markets, for example if our competitors are unable to bring planned new capacity into service on schedule.

Specific market developments in individual businesses result in significant opportunities and risks. These relate to both demand from specific markets and the competitive situation in various industries. Changes in demand can impact our business volume and sales. We address these risks proactively through permanent market monitoring, activities to retain customers and gain new accounts, and timely endeavors to develop innovative new applications and enter new markets. In principle, these opportunities and risks may affect all segments, but they are particularly relevant for the Nutrition & Care and Performance Materials segments. One potential risk factor for our amino acids business, for example in Asia, is the possible impact of substandard food quality and food safety, especially due to bird flu. We utilize opportunities for profitable future growth by gaining access to new markets as part of our strategic development. One attractive market for our amino acids business is aquaculture, for which we have developed innovative products. As a result of global population growth, rising affluence in emerging markets and overfishing of the world's oceans, the global aquaculture market is growing faster than other areas of livestock farming.

Customer concentration is basically low in our chemicals segments. None of the end-markets that we supply accounts for more than 20 percent of sales. Nevertheless, some operational units, especially in the Nutrition & Care and Resource Efficiency segments, and the Services segment have a certain dependence on key customers. In the operating business, this applies in particular to production facilities erected in the direct vicinity of major customers. The possible loss of a major customer could result in lower sales and in impairment losses on receivables and investments, as well as impacting our long-term raw material agreements or the financial structure of our affiliates.

2. Financial markets

On the financial markets, the company is exposed to risks and opportunities associated with prices and to liquidity and default risks. Price-related opportunities and risks result from changes in exchange rates, interest rates and other prices. Liquidity risks relate to the ability of the company to meet its payment obligations, while default risks entail the risk of a loss if a debtor is fully or partially unable to meet its payment commitments.

Minimizing these risks is an important objective of our corporate policy. To this end, Group-wide policies and principles specify that all material financial risk positions have to be identified and evaluated. The risks are then limited through selective use of derivative and non-derivative financial instruments, taking the cost/benefit profile into account. This may include the use of options for hedging purposes. For financial risk management purposes, Evonik applies the principle of separation of front office, risk controlling and back office functions and takes as its guide the banking-specific "Minimum Requirements for Risk Management" (MaRisk) and the requirements of the German legislation on corporate control and transparency (KonTraG). Binding trading limits, responsibilities and controls are thus set in accordance with recognized best practices. This forms the basis for selective hedging to limit risks.

The risks and opportunities associated with interest rates and exchange rates are managed centrally by the Finance Division of Evonik Industries AG, which also issues instructions on the management of liquidity and default risks. Financial derivatives[1] are used exclusively to reduce the risks resulting from operating and financing activities and therefore always relate to corresponding underlying transactions. Use of financial instruments for speculation is not permitted.

Forward exchange contracts, currency swaps, currency options and cross-currency interest rate swaps are used to manage currency risks. When setting interest terms, we pay attention to careful structuring of the fixed-to-floating interest ratio; interest rate swaps can be used to optimize the situation. Commodity swaps are used to hedge the risk of fluctuations in the price of coal, natural gas and petrochemical feedstocks. We also use forward contracts to secure procurement of the emission allowances required to meet the statutory requirements.

In the management of currency risks, we distinguish between risk positions recognized on the balance sheet and off-balance-sheet (i.e. forecast and firmly agreed) risk positions. Risks included in the balance sheet (trade accounts receivable and financial transactions) are fully hedged using forward exchange contracts and cross-currency interest rate swaps. Risk positions relating to forecast and firmly agreed cash inflows and outflows are determined on a decentralized basis and managed/hedged centrally in accordance with the principles/hedging strategy adopted by the Executive Board. Alongside forward exchange contracts, currency options are used for this purpose. Translation risks are not normally hedged.

We manage the opportunities and risks resulting from changes in interest rates in financing and investment activities on a case-by-case basis. Through the use of fixed-interest loans and interest rate hedging instruments, 93 percent of all financial liabilities were classified as fixed-interest as of the reporting date, and therefore had no material exposure to changes in interest rates.

Changes in interest rates can have a significant influence on the present value of our pension obligations[2] and thus entail both high opportunities and high risks for the Group.

We use scenario analyses[3] to assess the possible impact of opportunities and risks relating to currencies and interest rates. Currency analyses focus on the Group's most important foreign currencies, the US dollar and the Chinese renminbi yuan. In view of the rising importance of regions outside the euro zone, exchange rate risks and opportunities will increase in the long term.

1 Further details of the financial derivatives used and their recognition and valuation can be found in Note 10.2 to the consolidated financial statements.
2 See Note 4 (e).
3 A detailed overview of liquidity risks and their management can be found in Note 10.2 to the consolidated financial statements. Details of the financing of the Evonik Group and action to protect liquidity can be found in the section on financial condition.

Other price risks relating to the financial markets come mainly from investments in companies that are listed on the stock exchange, which IAS 39 specifies have to be recognized on the balance sheet at their stock market value. Since Evonik does not generally undertake such investments with a view to short-term purchase or sale, the unrealized changes in market value are only recognized in the income statement if they represent a significant or long-term loss of value. Otherwise, they are recognized as changes in equity with no impact on profit or loss until such gains or losses are realized through sale of the investment.

At the heart of Evonik's central liquidity risk management[1] is a Group-wide cash pool. In addition, the Group's financial independence is secured through a broadly diversified financing structure.

Overall, we believe that adequate financing instruments are available to ensure sufficient liquidity at all times.

Credit risks relating to financial contracts are systematically examined when the contracts are concluded and monitored continuously afterwards. Limits are set for each counterparty on the basis of internal or rating-based creditworthiness analyses.

Market opportunities and risks, and liquidity and default risks relating to financial instruments also arise from the management of our pension plan assets. Here, we take an active approach to risk management, which is combined with detailed risk controlling. Strategic management of the portfolios takes place via regular active/passive studies. To minimize risk, we use a range of derivative hedging strategies where appropriate. The broad diversification of asset classes, portfolio sizes and asset managers avoids cluster risks but there are unavoidable residual risks in the individual investments.

Goodwill from business combinations is allocated to the segments. An impairment test is conducted annually for these reporting segments. Impairment losses on these intangible assets can result from a change in reporting structure, the weighted average cost of capital and, above all, lower cash flow expectations.

3. Raw material markets

For our business operations we require both high-volume commodities and smaller amounts of strategically relevant raw materials that have to meet highly demanding specifications. In both cases Evonik is confronted with opportunities and risks relating to the increasing volatility of the availability of raw materials and their prices. Another risk may result from single-source situations, although the extent of such risks is low.

The operating business is dependent on the price of strategic raw materials, especially petrochemical feedstocks obtained directly or indirectly from crude oil. The price of crude oil therefore has a considerable influence on both the procurement prices of raw materials further down the value chain and on energy costs. The price of renewable raw materials is also highly volatile and is driven, for example, by weather-dependent harvest yields.

Any risks are hedged by optimizing the global focus of procurement activities, for example by accessing new markets and concluding market-oriented agreements. The overriding aim of the procurement strategy is to secure the availability of raw materials on the best possible business terms. Multi-sourcing concepts are therefore used.

To further reduce the risks with regard to products that have intensive raw material requirements, our aim is to align the procurement and sales sides in order to pass both the risks and opportunities of fluctuations in raw material prices along to other stages in the value chain where necessary, for example through price escalation clauses.

Short- and mid-term bottlenecks in the availability of precursors and intermediates are also potential risks. As well as making preparations to use substitute suppliers in an emergency, we constantly observe the business performance of suppliers of selected key raw materials to anticipate bottlenecks and avoid risks. 2016 was characterized by unforeseeable outages in the supply chain resulting from force majeure. Such risks were generally alleviated by developing and implementing suitable measures in cooperation with the suppliers affected and alternative suppliers.

Rising volatility will require an even greater focus on the various supply chain risks in the future.

[1] A detailed overview of liquidity risks and their management can be found in Note 10.2 to the consolidated financial statements. Details of the financing of the Evonik Group and action to protect liquidity can be found in the section on financial condition.

Ensuring the sustainability of the supply chain remains a central aspect of procurement. Globally, this approach to sustainability is supported by the sector initiative Together for Sustainability, of which Evonik is a founding member, through the use of standardized assessments. Evonik's principal suppliers and the majority of critical suppliers have already taken part in these assessments, which are evaluated by an impartial sustainability rating company.

The opportunities and risks arising from changes in the price of petrochemical feedstocks mainly affect the Performance Materials segment because of its high procurement volume. Risks relating to single sourcing and short-term restrictions on the availability of raw materials mainly affect the Nutrition & Care and Resource Efficiency segments.

4. Research & development

Opportunities for Evonik also come from market-oriented research & development (R&D), which we regard as an important driver of profitable growth. We have a well-stocked R&D pipeline with a balanced mixture of short-, mid- and long-term R&D projects. On the one hand, we constantly strive to improve our processes in order to strengthen our cost leadership, and on the other, our projects open the door to new markets and new fields of technology. Our project portfolio is consistently aligned to the strategy of each of the relevant business entities.

Further opportunities are being generated by the increasing involvement of external partners (open innovation). We cooperate with research institutes and universities to ensure rapid translation of the latest research findings into our company. We also work with start-ups and other industrial companies to facilitate solutions at all stages in the value chain that set us apart from our competitors.

Through our venture capital program, we take stakes in companies whose know-how can support us in joint developments.

Opportunities and risks in R&D relate to the viability of planned product and process developments and the timing of their implementation. We mainly see significant opportunities from the introduction of new products that go beyond our present planning in the Resource Efficiency segment.

5. Investments

Generating organic growth through investment entails risks as regards the proposed scope and timing of projects. These risks are addressed through established, structured processes. For instance, we take an extremely disciplined approach to implementing our investment program. Both projects that have not yet started and those that are already underway are constantly reviewed for changes in the market situation and postponed if necessary.

At the same time, we regard building new production facilities in regions with high growth momentum as an opportunity to generate further profitable growth. For example, socio-economic megatrends are driving the development of our amino acids business. Following the successful start-up of a world-scale facility for DL-methionine in Singapore in fall 2014, we are building another plant at this complex by 2019. Global population growth means that demand for animal protein will continue to rise steadily in the future. This is being reinforced by a further trend: In the emerging markets eating habits in the growing middle class are shifting towards western patterns in the wake of rising prosperity and progressive urbanization. Consumption of meat is therefore increasing sharply in Asian cities, leading to more intensive livestock farming in this region. Moreover, environmentally compatible agricultural production that makes more efficient use of resources is becoming more important worldwide for ecological reasons.

Resource efficiency is the basis for a large number of energy-efficient and environment-friendly products from Evonik. One example is precipitated silica, where we are a market leader. Combining precipitated silica with silanes allows the manufacture of tires with considerably lower rolling resistance than conventional auto tires, resulting in fuel savings of up to 8 percent. Here, future growth will be supported, among other factors, by the introduction of tire labeling regulations in further countries. To utilize the resultant opportunities, we are selectively increasing our capacity for silica. For instance, a new production facility was taken into service in Brazil in 2016. This is the first local producer of highly dispersible silica (HD silica) specifically for the South American tire industry. In South America the market for tires with low rolling resistance, and thus for HD silica, is growing far faster than the market for normal auto tires. In addition, we are currently erecting a further production facility for precipitated silica in the USA to supply customers in North America.

The investments described above are included in our mid-term planning. Delayed realization or abandonment of investment projects, for example because of the political situation in certain countries, would adversely affect planned growth and, in extreme situations, could result in impairment losses and the associated write-downs on facilities or plants under construction. By contrast, new projects could result in additional earnings in some areas.

6. Production

As a specialty chemicals company, Evonik is exposed to the risk of business interruptions, quality problems and unexpected technical difficulties. Our products involve complex production processes, some of them with interdependent production steps. Consequently, disruption and stoppages can adversely affect subsequent production steps and products. The outage of production facilities and interruptions in production workflows could have a significant negative influence on business and earnings performance, and could also harm people and the environment. Group-wide policies on project and quality management, highly qualified employees and regular maintenance of our plants effectively minimize these risks. Insofar as is economically viable, we take out insurance to cover damage to our plants and sites and production stoppages, so the financial consequences of potential production risks are largely insured. Nevertheless, there is a risk of unforeseeable individual incidents.

7. Other

A steady improvement in our cost position is necessary to make us more competitive. The principal drivers were our On Track 2.0 and Administration Excellence optimization programs, which have made an important contribution to reducing costs and raising efficiency. The On Track 2.0 program far exceeded the cumulative cost-saving targets set for 2012–2016 and was completed as scheduled at year-end 2016. To ensure that the efficiency improvements are sustained, a continuous improvement process has been introduced using the On Track system and methodology.

Beside the potential to raise strategic flexibility and strengthen the operating units as a result of these programs and other restructuring projects, there are risks relating to their implementation. These include the risk of failing to meet the ambitious timelines, a loss of personnel with key expertise, failure to meet financial targets, and higher restructuring costs. Stringent project management, including involving relevant stakeholders, is used to counter these risks.

8. Energy markets

Evonik requires considerable amounts of energy from a wide variety of sources for its chemical facilities and infrastructure. The main sources are natural gas, electricity and coal. At several major sites, we generate some of our electricity requirements in our own resource-efficient co-generation plants. In 2016, we continued our constant monitoring of trends on the national and international energy markets, enabling us to respond cost-consciously.

In countries where the sourcing of energy is not state-regulated, we procured and traded in energy and, where necessary, emission allowances (CO_2 allowances) within the framework of defined risk strategies. The aim is to balance the risks and opportunities of volatile energy markets. Depending on how the general conditions develop, our segments could be faced with additional costs.

In highly volatile market conditions, natural gas and coal prices in Central Europe and North America were about 20 percent higher at year-end 2016 than at the start of the year, whereas in Asia the price of these energy inputs remained fairly constant. Coal prices rose worldwide by up to 50 percent in the reporting period, driven mainly by China, which is the world's largest consumer of coal. Prices for natural gas, which Evonik uses both as a fuel and as a raw material, are still far higher at our sites in Europe and Asia than in the USA and Canada.

In European emissions trading, the price of CO_2 allowances dropped by around 20 percent during the year. In the mid term, risks could come from the structure of the fourth trading period of the emissions trading system (2021–2030), which could possibly include tighter rules for the allocation of free allowances. In the broader regulatory context of the energy markets, the way in which the cost of renewables is allocated among captive energy generators in Germany is of particular significance for Evonik. Based on the legislative process that was completed at the end of 2016, we anticipate that Evonik will face a modest cost increase, but that the role of existing captive energy generators will be strengthened to support the competitiveness of German sites. Overall, we are exposed to fluctuations in the market price and cost of various energy sources as a result of the specific demand/supply situation and political events. These entail both opportunities and risks.

9. Mergers & acquisitions

Active portfolio management has high priority for Evonik as part of our value-based management approach. We have set out clear procedures for preparing, analyzing and undertaking acquisitions and divestments. In particular, these include clear rules on accountability and approval processes. An intensive examination of potential acquisition targets (due diligence) is undertaken before they are acquired. This involves systematic identification of all major opportunities and risks and an appropriate valuation. Key aspects of this process are strategic focus, earnings power and development potential on the one hand, and any legal, financial and environmental risks on the other. New companies are rapidly integrated into the Group and thus into our risk management and controlling processes. Every transaction of this type entails a risk that integration of the business may not be successful or that integration costs may be unexpectedly high, thus jeopardizing realization of the planned quantitative and qualitative targets such as synergies.

In the course of the integration of the Air Products specialty additives business, which was acquired on January 3, 2017, Evonik will pay special attention to the identified risks and the related measures.

Where businesses no longer fit our strategy or meet our sustainable profitability requirements despite optimization, we also examine external options. If a planned divestment is not achieved successfully, this could generate risks that impact the Group's earnings position.

10. Human resources

Qualified specialists and managers are the basis for the achievement of our strategic and operational targets and thus a key competitive factor.

Both the loss of key personnel and difficulties in attracting and hiring skilled and talented staff could therefore constitute a risk in this context.

To ensure that we can recruit and retain qualified staff to meet our future requirements, we offer varied employment opportunities worldwide, systematic personnel development, and competitive remuneration. In this way, we retain and foster high-performers and talented employees, and position Evonik as an attractive employer for prospective staff. We also maintain close links to universities and professional associations to help us recruit suitable youngsters. Both our employer branding and many internal activities are aligned to diversity. The aim is to make Evonik even more attractive to talented specialists and managers. Strategic human resources planning identifies requirements for a five-year period so timely steps can be taken to cover future personnel needs. We have thus largely limited potential human resources risks.

Opportunities and risks for the development of personnel expenses could come, for example, from future collective agreements.

7.4 Legal/compliance risks and opportunities

The opportunities and risks in this category are far more difficult to quantify than market and competition risks, as they not only have financial implications but often also involve reputational risks for the company and/or criminal law consequences. Provisions are set up on our balance sheet to cover the financial impact. These are reflected in our system as reducing risk. In view of this complexity, legal/compliance opportunities and risks are not normally assigned to the opportunity/risk matrix illustrated above, nor are they allocated to the risk quantification classes. Major opportunities and risks for the Group's earnings naturally arise from issues that result in the reversal of or an increase in provisions.

1. Law, regulatory framework and compliance

Evonik is exposed to legal risks resulting, for example, from legal disputes such as claims for compensation, and from administrative proceedings and fines. In its operating business, the Evonik Group is exposed to liability risks, especially in connection with product liability, patent law, tax law, competition law, antitrust law and environmental law. Changes in public law could also give rise to legal risks or materially alter such risk positions. As a chemical company with its own power plants, risks of particular relevance here are a possible change in the charges levied under the German Alternative Energies Act (EEG) and amendments to the European emissions trading regulations.

Further, Evonik may be liable for guarantee claims relating to divestments. Structured post-transaction management closely monitors any liability and guarantee risks resulting from divestments. We have developed a concept involving high quality and safety standards to ensure a controlled approach to such legal risks.

Insurance cover has been purchased for the financial consequences of any damage that may nevertheless occur as a result of damage to property, product liability claims and other risks. Where necessary, Evonik sets up provisions for legal risks.

At present, the issues outlined below represent the main legal risks. As a matter of principle, we refrain from evaluating the opportunities and risks of potential legal proceedings or proceedings that have commenced, in order not to influence our position.

Evonik is currently involved in three ongoing appraisal proceedings in connection with the settlement paid to former shareholders. The background relates to the following corporate restructuring measures: the domination and profit-and-loss agreement concluded with RÜTGERS GmbH (formerly RÜTGERS AG) in 1999, the squeeze-out of non-controlling interests in RÜTGERS AG (now RÜTGERS GmbH) in 2003, and the squeeze-out of non-controlling interests in Degussa AG (now Evonik Degussa GmbH) in 2006. The appraisal proceedings comprise a court review of the appropriateness of cash settlements or compensation.

In connection with the divestment of the former carbon black activities, the purchaser has requested indemnification from environmental guarantees relating to alleged infringement of the US Clean Air Act. Evonik is currently engaged in a dispute with the purchaser on this.

Following a fine imposed by the EU Commission in 2002 on various methionine producers (including Evonik), the Brazilian antitrust authorities have filed proceedings against Evonik in connection with the delivery of methionine to Brazil. Evonik is of the opinion that a fine cannot be imposed due to the statute of limitations.

Furthermore, following completion of administrative proceedings outside Germany, it is not improbable that individual customers could file claims for compensation.

With regard to employment law, there are risks relating, for example, to recalculation of pension commitments entered into by Evonik and its legal predecessors.

Tax risks relate to differences in the valuation of business processes, capital expenditures and restructuring by the financial authorities and from potential retroactive payments in the wake of tax audits.

Compliance means lawful and ethically correct business conduct. All employees are subject to the binding regulations on fair treatment of each other and of business partners set out in our Code of Conduct. Risks could therefore result from failure to comply with the corresponding regulations. To minimize compliance risks, extensive training and sensitization of employees is undertaken at face-to-face training sessions and/or through e-learning programs.

2. Risks relating to the protection of intellectual property and know-how

Innovations play a significant part in Evonik's business success. Protecting know-how and intellectual property is therefore of central importance. With markets growing ever closer and the globalization of business, a competent approach to protecting our competitive edge is a key element in our investment activities. The company is also exposed to a risk that intellectual property cannot be adequately protected, even through patents, especially when building new production facilities in certain countries. Similarly, the transfer of know-how in joint ventures and other forms of cooperation also entails a risk of an outflow of expertise from Evonik. For example, in the event of the possible separation from a joint venture or other cooperation partner, there is no guarantee that the business partner will not continue to use know-how transferred or disclose it to third parties, thereby damaging Evonik's competitive position.

Measures to minimize and avoid such risks are coordinated by the Corporate Security Division and the Intellectual Property Management unit. The Corporate Security Division has Group-wide responsibility for protecting Evonik's employees, facilities, shipments and know-how. That includes, for example, the threat of violence, political unrest, sabotage and industrial espionage. Intellectual Property Management provides Group-wide support for the development, protection, strategic use and commercialization of intellectual property, for instance through patents and brands. The approximately 150 employees in this unit are assisted by a global network of correspondent lawyers.

3. Environmental risks (environment, safety, health, quality)

Evonik is exposed to risks in the fields of plant safety, product safety, occupational safety and failure to comply with environmental regulations. Group-wide policies on the environment, health and safety, and worldwide initiatives taken by the Group and the segments to steadily improve safety in our production facilities effectively reduce these risks. In addition, risks that could arise as a result of the sourcing of raw materials and technical services and their impact on our operating business are systematically identified and evaluated. Moreover, audits are conducted at the request of the Executive Board to check the controlled handling of such risks. Furthermore, the Group-wide environmental protection and quality management system, which is validated as conforming to international standards, undergoes constant development and improvement. As a responsible chemical company, Evonik ensures that such processes are operated in accordance with the principles of the global Responsible Care initiative and the UN Global Compact.

Adequate provisions have been established to secure or remediate contaminated sites where necessary. Alongside the need to adjust environmental provisions identified through structured internal processes, for example as a result of changes in the regulatory framework, further unplanned additions to such provisions may be necessary.

7.5 Process/organization risks

1. General

This risk category covers the interface between risk management and the internal control system (ICS). In this category, risks generally result from specific process shortcomings. Alongside general weaknesses, these include, in particular, risks within the ICS and the accounting-related ICS. Classification is therefore based on the list of processes drawn up by Corporate Audit. Starting from key corporate processes, the existence of relevant control objectives and standard controls for the main risks identified is checked. In view of the types of risk in this category, a purely qualitative assessment is normally used.

The evaluation of specific risks resulting from weaknesses in processes within the organizational units showed very little scope to optimize existing processes because of the efficacy of the current controls. Corresponding scope for improvement has been identified. There are therefore no signs of systematic errors in the Evonik Group's ICS.

2. Internal control system for financial accounting

The main financial reporting risks are identified in the ICS through a quantitative and a qualitative analysis. Controls are defined for each risk area of the accounting process. Their efficacy is tested at regular intervals and improved where necessary. All elements of the control process are verified by Internal Audit on the basis of random samples.

To ensure the quality of financial statements we have a Group-wide policy which defines uniform accounting and valuation principles for all German and foreign companies included in the consolidated financial statements. The majority of companies have delegated the preparation of their financial statements to Financial Services. Through systematic process orientation, standardization and the utilization of economies of scale, this leverages sustained cost benefits and also improves the quality of accounting. Global Financial Services has developed a standardized control matrix for the internal control system for financial accounting. This is implemented in the three global shared service centers: in Offenbach (Germany) for the Germany region, Kuala Lumpur (Malaysia) for the Asia region, and San Jose (Costa Rica) for the Americas region. The aim is to ensure a uniform global standard for the internal control system for financial accounting. In principle, the annual financial statements of all fully consolidated companies and all joint operations are audited. In the few exceptions from this rule, an upfront risk assessment is performed with the auditor.

All data are consolidated by the Accounting Division using the SAP SEM-BCS system. Group companies submit their financial statements via a web-based interface. A range of technical validations are performed at this stage. Computerized and manual process controls and checking by a second person are the key oversight functions performed in the financial reporting process. The preparation of the monthly consolidated income statement and publication of three quarterly reports enables us to gain experience with new accounting issues and provide a sound basis for plausibilization of the year-end accounts. The Executive Board receives monthly reports and quarterly reports are submitted to the Audit Committee of the Supervisory Board.

Aspects that may represent opportunities or risks for financial reporting in the future are identified and evaluated early through the risk management system. This allows close meshing of risk management with controlling and accounting processes.

8. Information pursuant to Section 289 Paragraph 4 and Section 315 Paragraph 4 of the German Commercial Code (HGB) and explanatory report by the Executive Board pursuant to Section 176 Paragraph 1 of the German Stock Corporation Act (AktG)

Structure of issued capital

The capital stock of Evonik Industries AG is €466,000,000 and is divided into 466,000,000 no-par registered shares. Each share entitles the holder to one vote.

Under Section 5 Paragraph 2 of the Articles of Incorporation, shareholders do not have any claim to the issue of certificates for their shares unless the issue of a certificate is required by the rules of a stock exchange on which the share has been admitted for trading.

There are no different share classes, nor any shares with special rights.

Restrictions on voting rights or the transfer of shares

In connection with Evonik's employee share programs, there are restrictions on the ability of participating employees to dispose of their shares for a certain time period. In particular, they are required to hold their shares in each case until the end of the next-but-one calendar year after the year of allocation.

The Executive Board is not aware of any other restrictions on voting rights or the transfer of shares.

Direct and indirect shareholdings that exceed 10 percent of the voting rights

Under the German Securities Trading Act (WpHG), every shareholder whose voting rights in the company reach, exceed or drop below a certain level, whether through the purchase or sale of shares or in any other way, must notify the company and the Federal Financial Supervisory Authority (BaFin). Under Section 21 Paragraph 1 of the German Securities Trading Act, the relevant thresholds are 3, 5, 10, 15, 20, 25, 30, 50 and 75 percent of the voting rights. Changes in voting rights between these thresholds are not subject to notification under the German Securities Trading Act so the following data may differ from more recent overviews of the shareholder structure. In compliance with Section 160 Paragraph 1 No. 8 of the German Stock Corporation Act (AktG), the notes to the financial statements of Evonik Industries AG contain an overview of all voting rights notifications submitted to the company pursuant to Section 21 of the German Securities Trading Act.

Under Section 289 Paragraph 4 No. 3 and Section 315 Paragraph 4 No. 3 of the German Commercial Code (HGB), all direct and indirect shareholdings exceeding 10 percent of the voting rights must be declared.

As of December 31, 2016, the Executive Board had only received notification of one direct shareholding exceeding 10 percent of the voting rights—from RAG-Stiftung, Essen (Germany).

The Executive Board is not aware of any further direct or indirect holdings in the company's capital stock that exceed 10 percent of the voting rights.

Method of exercising oversight through voting rights in the event of employee shareholdings

Employees can become shareholders in the company through employee share programs. Instead of exercising their rights of oversight themselves, employees who hold shares in the company's capital may transfer these rights to an employee shareholder association, which acts in their interests. No voting rights had been transferred to the employee shareholder association as of the reporting date.

Appointment and dismissal of Executive Board members, amendments to the Articles of Incorporation

The appointment and dismissal of members of the Executive Board of Evonik Industries AG is governed by Section 84 of the German Stock Corporation Act (AktG) and Section 31 of the German Codetermination Act (MitbestG), in conjunction with Section 6 of the company's Articles of Incorporation. Section 6 of the Articles of Incorporation states that the Executive Board comprises at least two members. Further, the Supervisory Board is responsible for determining the number of members.

Changes to the Articles of Incorporation are normally resolved by the Annual Shareholders' Meeting. Section 20 Paragraph 2 of the Articles of Incorporation states that, unless mandatory provisions require otherwise, resolutions shall be adopted by a simple majority of the votes cast and—unless, besides a majority of the votes, a majority of the capital is required by law—by a simple majority of the capital stock represented.

Under Section 11 Paragraph 7 of the Articles of Incorporation, the Supervisory Board is authorized to resolve on amendments to the Articles of Incorporation, provided they are only editorial. A simple majority vote is sufficient.

Authorization of the Executive Board, especially to issue and repurchase shares

Pursuant to a resolution of the Shareholders' Meeting of May 18, 2016, the Executive Board is authorized until May 17, 2021, subject to the approval of the Supervisory Board, to purchase up to 10 percent of the company's capital stock. Together with other shares in the company which the company has already acquired or still owns, or which are attributable to it pursuant to Sections 71d and 71e of the German Stock Corporation Act (AktG), the shares acquired under this authorization may not, at any time, exceed 10 percent of the capital stock. Shares in the company may not be purchased for trading purposes.

Subject to the principle of equal treatment (Section 53a AktG), the purchase may take place via the stock exchange or via a public offer to all shareholders for the purchase or exchange of shares. In the latter case, notwithstanding the exclusion of tender rights permitted in specific circumstances, the principle of equal treatment (Section 53a AktG) must also be taken into account.

The resolution adopted by the Annual Shareholders' Meeting on March 11, 2013 authorizing the Executive Board to buy back shares in the company was rescinded.

The Annual Shareholders' Meeting on May 20, 2014 adopted an amendment to Section 4 Paragraph 6 of the Articles of Incorporation authorizing the Executive Board until May 1, 2019, subject to the approval of the Supervisory Board, to increase the company's capital stock by up to €116,500,000 (Authorized Capital 2014).

This authorization may be exercised through one or more issuances.

The new shares may be issued against cash and/or contributions in kind. The Executive Board is authorized, subject to the approval of the Supervisory Board, to exclude shareholders' statutory subscription rights when issuing new shares in the following cases:

- capital increases against contributions in kind
- if the capital increase is against cash and the proportionate share of the capital stock attributable to the new shares does not exceed 10 percent of the capital stock, and the issue price of the new shares is not significantly below the stock market price of shares already listed on the stock exchange
- to exclude fractional amounts arising from the subscription ratio
- insofar as is necessary to grant holders and/or creditors of warrants or conversion rights or obligors of warrant and/or conversion obligations subscription rights to new shares to the extent that they would be entitled to them after exercise of their warrants and/or conversion rights or fulfillment of their warrant or conversion obligations
- to grant shares to employees (employee stock), provided that the new shares for which subscription rights are excluded do not in aggregate account for a proportionate share of the capital stock in excess of 1 percent
- for the execution of a scrip dividend.

The proportionate amount of the capital stock attributable to the shares for which subscription rights are excluded, together with the proportionate amount of the capital stock attributable to treasury stock or to conversion and/or warrant rights or obligations arising from debt instruments, which are sold or issued after May 20, 2014 under exclusion of subscription rights, may not exceed 20 percent of the capital stock. If the sale or issue takes place in application—analogously or mutatis mutandis—of Section 186 Paragraph 3 Sentence 4 of the German Stock Corporation Act (AktG), this shall also be deemed to constitute exclusion of subscription rights.

The Executive Board is authorized, subject to the approval of the Supervisory Board, to define further details of capital increases out of the Authorized Capital 2014. The authorized capital has not yet been utilized.

In connection with the authorization of May 20, 2014 to issue convertible and/or warrant bonds with a nominal value of up to €1.25 billion up to May 1, 2019, the capital stock is conditionally increased by a further €37,280,000 (Conditional Capital 2014).

The conditional capital increase will only be conducted insofar as holders or creditors of warrant or conversion rights or obligors of warrant or conversion obligations arising from warrant bonds and/or convertible bonds issued or guaranteed on the basis of the authorization resolved at the Annual Shareholders' Meeting of May 20, 2014, exercise their warrants or conversion rights or, insofar as they have an obligation to exercise the warrants or conversion obligations, meet the obligation to exercise the warrant or conversion obligations and other forms of settlement are not used.

The new shares are entitled to a dividend from the start of the fiscal year in which they are issued.

Significant agreements concluded by the company that are contingent upon a change of control resulting from a takeover bid

Evonik Industries AG is a contracting party in the following agreements that are contingent upon a change of control resulting from a takeover bid:

- The company has agreed a €1.75 billion syndicated credit facility with its core banks, which had not been drawn as of December 31, 2016. In the event of a change of control resulting from a takeover bid, these banks could withdraw the credit facility. On the terms agreed, this applies if a new major shareholder (apart from RAG-Stiftung and its subsidiaries) acquires direct or indirect voting rights of more than 50 percent in Evonik Industries AG—including through a voting rights agreement with one or more other shareholders (pursuant to Section 30 Paragraph 2 of the German Securities Acquisition and Takeover Act (WpÜG)).
- The company has a debt issuance program to place bonds with a total volume of up to €5 billion. By December 31, 2016 five bonds with a total nominal value of €3.15 billion had been issued under this program. The issue conditions contain a change-of-control clause. In the event of a change of control resulting from a takeover bid and a deterioration in the credit rating of Evonik Industries AG to non-investment grade within 90 days as a result of such change of control, the bondholders have the right to demand redemption of the bond at nominal value plus accrued interest. A change of control is deemed to have occurred if a person (apart from RAG-Stiftung or a (direct or indirect) subsidiary of RAG-Stiftung) or persons acting in a concerted manner directly or indirectly acquire(s) more than 50 percent of the voting rights in Evonik Industries AG.

Agreements on payment of compensation by the company to members of the Executive Board or other employees in the event of a change of control

Change-of-control clauses are only agreed with members of the Executive Board in connection with long-term remuneration. A change of control is defined as cases when another company obtains control of Evonik Industries AG as defined in the German Securities Acquisition and Takeover Act (WpÜG) or there is a material change in the company's shareholders as a result of a merger or comparable reorganization or business combination. In such cases, the long-term remuneration due to the eligible employees is calculated immediately and paid into their salary account with their next regular salary payment. From the 2013 tranche, the payment is calculated pro rata based on the period between the grant date and the change of control and the four-year performance period.

9. Declaration on corporate governance

The declaration on corporate governance in compliance with Section 289a of the German Commercial Code (HGB) in conjunction with Section 315 Paragraph 5 HGB has been made available to the public on the company's website at www.evonik.com/declaration-on-corporate-governance. Further, extensive information on corporate governance is contained in the Corporate Governance Report in this Annual Report.

10. Remuneration report

The remuneration report outlines the principles of the remuneration system for the members of the Executive Board and the Supervisory Board, together with the structure and level of their individual remuneration. This report complies with the German Commercial Code (HGB), including the principles set out in German Accounting Standard No. 17 (DRS 17), the International Financial Reporting Standards (IFRS), and the requirements of the German Corporate Governance Code.

10.1 Remuneration of the Executive Board

Changes on the Executive Board

At its meeting on May 6, 2016, the Supervisory Board appointed Christian Kullmann as Deputy Chairman of the Executive Board with immediate effect.

Principles and objectives

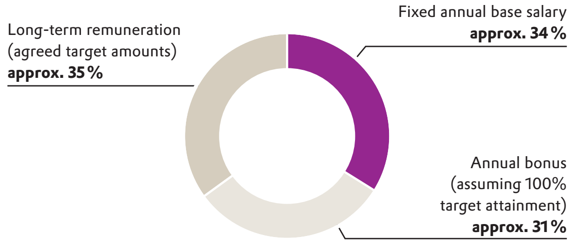
The remuneration system for the Executive Board is designed to ensure that members receive adequate remuneration for their tasks and responsibilities, and to take direct account of the performance of each member of the Executive Board and of the company. The structure of the remuneration system for the members of the Executive Board of Evonik Industries AG is geared to sustained value creation and performance-oriented management of the company. It comprises a fixed monthly base salary, which takes account of the tasks and services performed by the respective member, and a variable short-term component comprising an annual bonus which is dependent on the attainment of annual performance targets. This is supplemented by a long-term component linked directly to the increase in the value of the company as an incentive for sustained commitment to the company, and the customary fringe benefits.

The remuneration is reviewed regularly by the Supervisory Board, where appropriate on the basis of remuneration reports from independent consultants. These reviews examine the structure and level of remuneration of the Executive Board, particularly in comparison with the external market, and also in relation to remuneration elsewhere in the company. If this reveals a need to adjust the remuneration system, or the level or structure of remuneration, the Executive Committee of the Supervisory Board submits a corresponding proposal to the full Supervisory Board for a decision. The last external review of the remuneration system for appropriateness was in September 2015.

Christian Kullmann's remuneration was adjusted with effect from May 6, 2016 following his appointment as Deputy Chairman of the Executive Board.

The chart shows the breakdown of the main remuneration components in 2016, i. e. excluding benefits in kind, other fringe benefits and company pension plans.

Structure of remuneration of members of the Executive Board [a]



[a] Excluding fringe benefits and retirement pensions.

Performance-unrelated components

Fixed annual base salary

The fixed **annual base salary** is a cash payment for the fiscal year. It takes account of the scope of responsibility of each Executive Board member and is paid out in twelve equal installments.

Benefits in kind and other fringe benefits

As benefits in kind and other fringe benefits members of the Executive Board receive a company car with a driver, the installation of telecommunications equipment, and an entitlement to an annual medical check-up. Executive Board members may receive a rent subsidy if performance of their duties requires them to rent a second apartment. Benefits in kind are presented in this remuneration report at the values defined in the tax regulations.

Further, members of the Executive Board may receive additional remuneration for offices they hold in the interests of the company. Apart from fees for the attendance of meetings, insofar as such fees are paid to Executive Board members, they are deducted from their annual bonus or paid over to the company. In this remuneration report, remuneration for offices held in the interests of the company is included in other fringe benefits.

Performance-related components

Short-term variable remuneration

The performance-related **annual bonus** is dependent on the attainment of business targets measured by performance indicators (bonus factor) and the attainment of individual objectives (performance factor). The bonus factor and performance factor are multiplied. The level of the bonus factor depends on the achievement of the agreed business targets, and may be between 0 and 200 percent. ROCE, adjusted net income and adjusted EBITDA are defined as business targets. The ROCE target is measured against the mid-term cost of capital, while the net income and EBITDA targets are derived from corporate planning. The company's accident performance in the financial year (number and severity of accidents compared with the previous year) also has an influence.

The performance factor rewards the attainment of the personal objectives and can vary between 80 percent and 120 percent. The reference indicators are aligned individually to the performance objectives for each member of the Executive Board and normally have a multi-year context within the target-setting framework.

If the personal and business objectives are achieved in full, the contractually agreed bonus is paid. If the company's income falls short of the planned level, the bonus factor may—in the extreme case—be zero, regardless of personal attainment. In other words, it is conceivable that a bonus might not be paid for a specific year. The bonus is capped at 200 percent of the target bonus.

The business and personal targets set for Executive Board members for the bonus and performance factors are agreed in writing at the start of each fiscal year between the Supervisory Board and each member of the Executive Board and the level of attainment is determined by the Supervisory Board after the end of the year.

Long-term variable remuneration (LTI)

The members of the Executive Board receive long-term variable remuneration in the form of Long-Term Incentive (LTI) Plans. Following Evonik's stock exchange listing, the structure of the LTI Plans was redefined as from the 2013 tranche. The general reference base for **long-term remuneration** is a sustained rise in the value of the company.

LTI tranches 2011 and 2012

The 2011 and 2012 tranches reward achieving or exceeding the operating earnings targets set in the mid-term planning and their impact on the value of the company. The performance period for each tranche runs for five years from January 1 of the grant year.

Entitlements are based on individually agreed target amounts provided that earnings targets are met. LTI payments are calculated in the year following the end of the performance period, when the necessary indicators are available. Payments are capped at three times the target amount, and can be zero if the defined lower threshold is not reached.

To determine the value of the company as a basis for ascertaining target attainment, the share price at the end of the performance period is used. For this purpose, the average price of shares in Evonik in the three months prior to the end of the performance period is calculated. In addition, dividends paid and any capital increases or decreases during the performance period are taken into account. The cumulative discrepancy between planned and actual target attainment in the performance period and the dividends paid in the last year of the performance period are taken into account in the calculation. If there is no share price, the value of equity is determined on the basis of the last share transaction in the last 12 months of the performance period. If there was no share transaction in the last 12 months, a fictitious equity value is used. This is derived by applying a fixed EBITDA multiple to the company's business performance in the last full fiscal year.

Given the structure of the 2011 and 2012 LTI Plans, they did not meet the definition of share-based payment pursuant to DRS 17.9 until Evonik Industries AG was listed on the stock exchange. Consequently, they were not classified as share-based payments. In each case, payment was contingent on attainment of the defined performance target and on the condition that the amount available for distribution was not zero. Accordingly, these tranches were only deemed to have been granted in the year in which the respective performance period ended. Granting of payments was further conditional on the fact that the stock exchange listing had not taken place. This final condition was met in 2013, resulting in the reclassification of this remuneration component as a share-based payment. In accordance with DRS 17, the 2011 and 2012 tranches are therefore regarded as granted as of this date and treated as share-based payments. The fair value of each tranche as of the date of the legally binding commitment was calculated.

LTI tranches 2013 and subsequent years

In view of the stock exchange listing of Evonik Industries AG, the Supervisory Board redesigned the LTI Plan for the period from 2013 so it differs from the 2011 and 2012 tranches. Performance is now measured by the absolute performance of Evonik's share price and its performance relative to the MSCI World Chemicals Index^{SM}.

Based on the contractually agreed target amount, which is defined in euros, a number of virtual shares is calculated using the share price at the start of the performance period. This is based on the price in the last 60 trading days before the start of the performance period. The performance period starts on January 1 of the grant year and runs for four years. Since there was no share price at the start of the performance period, as an exception, the virtual shares for the 2013 tranche were calculated from the share price in the first 60 trading days following admission to the stock exchange (April 25, 2013). At the end of the performance period, the starting price of Evonik shares is viewed against the average share price at the end of the performance period, including any dividends per share actually paid in this period. This is compared with the performance of the benchmark index (total shareholder return).

The relative performance may be between 70 and 130 percentage points. If the relative performance is below 70 percentage points, the relative performance factor is deemed to be zero. If the relative performance is above 130 percentage points, the relative performance factor is set at 130 percent.

The payment is calculated by multiplying the relative performance by the number of virtual shares allocated and the average price of Evonik shares at the end of the performance period.

Eligible participants are informed of the outcome after the end of the performance period. They can then opt to accept the payment calculated or to extend the performance period on a one-off basis for a further year. In this case, a renewed calculation is performed at the end of the extended performance period. Partial exercise at the end of the original performance period is not permitted. The upper limit for these payments is set at 300 percent of the individual target amount.

The fair values of the LTI tranches 2011 through 2016 as of the date of the legally binding commitment are shown in the next table:

LTI tranches

	2011 [a]	2012 [a]	2013 [b]		2014 [b]		2015 [b]		**2016 [b]**	
	in €'000	in €'000	No. of virtual shares	in €'000	No. of virtual shares	in €'000	No. of virtual shares	in €'000	No. of virtual shares	in €'000
Dr. Klaus Engel	479	495	43,133	1,028	45,208	1,023	47,510	1,488	39,395	842
Christian Kullmann	–	–	–	–	13,562	307	28,506	893	28,803	616
Dr. Ralph Sven Kaufmann	–	–	–	–	–	–	14,253	447	23,637	505
Thomas Wessel	96	297	25,880	617	27,125	614	28,506	893	23,637	505
Ute Wolf	–	–	6,470	154	27,125	614	28,506	893	23,637	505
Total	**575**	**792**	**75,483**	**1,799**	**113,020**	**2,558**	**147,281**	**4,614**	**139,109**	**2,973**

[a] No details are given of other share-based payments because a specific number of shares or share options was not issued, nor can the tranches be converted into a number of virtual shares.
[b] The date of the legally binding commitment corresponds to the grant date.

The total expense for all LTI tranches in 2016 was €1,881 thousand. The breakdown of the expense was as follows: €597 thousand for Dr. Engel, €351 thousand for Mr. Kullmann, €198 thousand for Dr. Kaufmann, €358 thousand for Mr. Wessel, and €377 thousand for Ms. Wolf.

Company pension plan

The company pension arrangements for Dr. Klaus Engel comprise a percentage of his fixed annual base salary, which is dependent on length of service with the company and is capped at 60 percent. This pension commitment provides for a lifelong retirement pension and surviving dependents' benefits.

A defined-contribution system is applicable for Christian Kullmann, Thomas Wessel and Ute Wolf. This is a capital-based system funded by provisions. The company credits a fixed annual amount to their pension account. This comprises 15 percent of their target remuneration, i.e. base salary and target bonus (variable short-term remuneration assuming 100 percent target attainment). The guaranteed annual return is 5 percent. The pension benefit comprises the amount that has accrued on the account, i.e. contributions credited to the account plus interest. In the event of death or disability, the amount that would be available on the account on the member's 55th birthday, including projected contributions and interest, is calculated. Payment normally comprises a lifelong pension. Alternatively, Executive Board members may opt for disbursement of part of the capital (maximum 50 percent) in six to ten installments. Pension entitlements accrued prior to appointment to the Executive Board are either integrated into the system as an initial contribution or continue to be managed separately. If a member's contract as a member of the Executive Board ends before benefits are payable, no further contributions are credited to the account. However, it continues to earn interest at the common market interest rate based on the average return earned by major German life insurers (at least 2.25 percent p.a.) until benefits are claimed. Currently, no pension arrangements have been agreed for Dr. Ralph Sven Kaufmann.

Members of the Executive Board are entitled to pension benefits after they leave the company if they leave on or after reaching the age of 60 or 62 (depending on their individual pension arrangements) or if they leave as a result of permanent incapacity to work. In addition, Dr. Engel can claim pension benefits from the date of premature termination or non-extension of his contract on the Executive Board, providing he does not give due cause for such termination. Mr. Kullmann and Mr. Wessel have similar claims based on pension entitlements accrued prior to their appointment to the Executive Board.

In 2016, the service cost for members of the Executive Board totaled €2,149 thousand (2015: €875 thousand, including a member who left the Executive Board) based on the German Commercial Code (HGB) and €1,116 thousand (2015: €2,261 thousand, including a member who left the Executive Board) based on IFRS.

The difference in service cost for pension commitments is attributable to differences in the valuation methods used to calculate the settlement amount in accordance with the German Commercial Code and the present value of pension obligations calculated in accordance with IFRS.

The present value of pension obligations for members of the Executive Board was €23,392 thousand (2015: €20,914 thousand) based on the German Commercial Code (HGB), and €33,973 thousand (2015: €25,799) based on IFRS.

Service cost and present value of pension obligations

	German Commercial Code (HGB)				IFRS			
	Service cost		Settlement amount of pension obligations as of Dec. 31		Service cost		Present value of the defined benefit obligation as of Dec. 31	
in €'000	**2016**	2015	**2016**	2015	**2016**	2015	**2016**	2015
Dr. Klaus Engel	1,127	114	15,498	14,102	–	712	21,526	16,945
Christian Kullmann	404	217	3,207	2,787	401	414	5,323	3,732
Dr. Ralph Sven Kaufmann (from July 1, 2015)	–	–	–	–	–	–	–	–
Thomas Wessel	326	236	3,394	3,027	375	384	5,045	3,810
Ute Wolf	292	235	1,293	998	340	349	2,079	1,312
Total	**2,149**	**802**	**23,392**	**20,914**	**1,116**	**1,859**	**33,973**	**25,799**

Provisions for pension obligations to former members of the Executive Board and their surviving dependents as of the reporting date were €37,250 thousand (2015: €38,704 thousand) based on the German Commercial Code (HGB) and €55,220 thousand (2015: €50,951 thousand) based on IFRS.

Rules on termination of service on the Executive Board

Cap on termination benefits in the event of premature termination of term of office

In conformance with the German Corporate Governance Code, the employment contracts with all members of the Executive Board provide for a cap on termination benefits. If a member's term of office is prematurely terminated, payments may not exceed two years' remuneration, including variable remuneration components. In no case is remuneration payable for periods beyond the remaining term of contract. The contracts specify that no termination benefits are payable if an Executive Board member's contract is terminated for reasons for which he or she is responsible. The cap on termination benefits is based on total remuneration including fringe benefits in the previous fiscal year and, where appropriate, the anticipated total remuneration for the current fiscal year.

Post-contractual non-compete agreements

Post-contractual non-compete agreements have not been concluded with members of the Executive Board.

Change-of-control clause

Change-of-control clauses are only agreed with members of the Executive Board in connection with long-term remuneration. A change of control is defined as cases when another company obtains control of Evonik Industries AG as defined in the German Securities Acquisition and Takeover Act (WpÜG) or there is a material change in the company's shareholders as a result of a merger or comparable reorganization or business combination. In such cases, the long-term remuneration due to the eligible Executive Board members is calculated immediately and paid into their salary account. From the 2013 tranche, the payment is calculated pro rata based on the period between the grant date and the change of control and the four-year performance period.

Remuneration of the Executive Board in fiscal 2016

The total remuneration paid to the members of the Executive Board for their work in 2016, including remuneration for the performance of other offices, was €12,167 thousand (2015: €15,608 thousand, including a member who left the Executive Board). The amount for 2016 included bonus payments of €242 thousand for the previous year, for which no provision was established in 2015.

Based on the principles outlined, the breakdown of remuneration for each Executive Board member in 2016 was as follows:

Remuneration of the Executive Board

	Performance-unrelated remuneration				Performance-related remuneration				Total remuneration in accordance with DRS 17	
	Fixed remuneration		Benefits in kind and other fringe benefits		Annual bonus		LTI [a]			
in €'000	**2016**	2015	**2016**	2015	**2016**	2015	**2016**	2015	**2016**	2015
Dr. Klaus Engel	1,250	1,100	18	22	1,392	1,959	842	1,488	3,502	4,569
Christian Kullmann	880	600	72	55	1,007	1,139	616	893	2,575	2,687
Dr. Ralph Sven Kaufmann [b]	700	300	123	28	707	585	505	447	2,035	1,360
Thomas Wessel	700	600	147	77	687	1,045	505	893	2,039	2,615
Ute Wolf	700	600	92	45	719	1,107	505	893	2,016	2,645
Total	**4,230**	**3,200**	**452**	**227**	**4,512**	**5,835**	**2,973**	**4,614**	**12,167**	**13,876**

[a] Fair value as of the legally binding commitment or grant date.
[b] 2015: pro rata from July 1, 2015.

In 2016, no member of the Executive Board received benefits or corresponding promises from third parties in connection with his or her service on the Executive Board. Further, as of December 31, 2016 there were no loans or advances to members of the Executive Board.

Finally, third-party financial loss insurance cover is provided for each member of the Executive Board to cover their statutory liability arising from their work on the Executive Board. In the event of a claim, this provides for a deductible of 10 percent of the damage, up to one-and-a-half times the individual member's fixed annual remuneration.

Remuneration report in accordance with the German Corporate Governance Code

The German Corporate Governance Code recommends that listed companies should also disclose the remuneration of the Executive Board on the basis of a defined table showing the granting and allocation of benefits.

Benefits granted

	Dr. Klaus Engel Chairman of the Executive Board				**Christian Kullmann** Deputy Chairman of the Executive Board [a]			
in €'000	2015	**2016**	**2016 (min)**	**2016 (max)**	2015	**2016**	**2016 (min)**	**2016 (max)**
Fixed compensation	1,100	1,250	1,250	1,250	600	880	880	880
Fringe benefits	22	18	18	18	55	72	72	72
Total	**1,122**	**1,268**	**1,268**	**1,268**	**655**	**952**	**952**	**952**
One-year variable compensation	1,150	1,150	–	2,300	650	814	–	1,628
Multi-year variable compensation	1,488	842	–	3,750	893	616	–	2,742
LTI 2015 through 2018	*1,488*	–	–	–	*893*	–	–	–
LTI 2016 through 2019	–	*842*	–	*3,750*	–	*616*	–	*2,742*
Total	**3,760**	**3,260**	**1,268**	**7,318**	**2,198**	**2,382**	**952**	**5,322**
Service cost	712	–	–	–	414	401	401	401
Total compensation	**4,472**	**3,260**	**1,268**	**7,318**	**2,612**	**2,783**	**1,353**	**5,723**

	Dr. Ralph Sven Kaufmann Responsible for the Nutrition & Care, Resource Efficiency and Performance Materials segments (from July 1, 2015)				**Thomas Wessel** Chief Human Resources Officer			
in €'000	2015	**2016**	**2016 (min)**	**2016 (max)**	2015	**2016**	**2016 (min)**	**2016 (max)**
Fixed compensation	300	700	700	700	600	700	700	700
Fringe benefits	28	123	123	123	77	147	147	147
Total	**328**	**823**	**823**	**823**	**677**	**847**	**847**	**847**
One-year variable compensation	325	650	–	1,300	650	650	–	1,300
Multi-year variable compensation	447	505	–	2,250	893	505	–	2,250
LTI 2015 through 2018	*447*	–	–	–	*893*	–	–	–
LTI 2016 through 2019	–	*505*	–	*2,250*	–	*505*	–	*2,250*
Total	**1,100**	**1,978**	**823**	**4,373**	**2,220**	**2,002**	**847**	**4,397**
Service cost	–	–	–	–	384	375	375	375
Total compensation	**1,100**	**1,978**	**823**	**4,373**	**2,604**	**2,377**	**1,222**	**4,772**

	Ute Wolf Chief Financial Officer			
in €'000	2015	**2016**	**2016 (min)**	**2016 (max)**
Fixed compensation	600	700	700	700
Fringe benefits	45	92	92	92
Total	**645**	**792**	**792**	**792**
One-year variable compensation	650	650	–	1,300
Multi-year variable compensation	893	505	–	2,250
LTI 2015 through 2018	*893*	–	–	–
LTI 2016 through 2019	–	*505*	–	*2,250*
Total	**2,188**	**1,947**	**792**	**4,342**
Service cost	349	340	340	340
Total compensation	**2,537**	**2,287**	**1,132**	**4,682**

[a] Appointed Deputy Chairman of the Executive Board effective May 6, 2016; his annual base salary, targets for one-year variable compensation and the allocation of multi-year variable compensation were adjusted as of this date.

Allocation

in €'000	Dr. Klaus Engel, Chairman of the Executive Board 2015	2016	Christian Kullmann, Deputy Chairman of the Executive Board [a] 2015	2016	Dr. Ralph Sven Kaufmann, Responsible for the Nutrition & Care, Resource Efficiency and Performance Materials segments (from July 1, 2015) 2015	2016	Thomas Wessel, Chief Human Resources Officer 2015	2016	Ute Wolf, Financial Officer 2015	2016
Fixed compensation	1,100	1,250	600	880	300	700	600	700	600	700
Fringe benefits	22	18	55	72	28	123	77	147	45	92
Total	**1,122**	**1,268**	**655**	**952**	**328**	**823**	**677**	**847**	**645**	**792**
One-year variable compensation [b, c, d]	2,139	1,323	1,256	921	617	675	1,147	648	1,186	703
Multi-year variable compensation	420	–	–	–	–	–	–	–	–	–
LTI 2010 through 2014	*420*	–	–	–	–	–	–	–	–	–
LTI 2011 through 2015	–	–	–	–	–	–	–	–	–	–
Total	**3,681**	**2,591**	**1,911**	**1,873**	**945**	**1,498**	**1,824**	**1,495**	**1,831**	**1,495**
Service cost	712	–	414	401	–	–	384	375	349	340
Total compensation	**4,393**	**2,591**	**2,325**	**2,274**	**945**	**1,498**	**2,208**	**1,870**	**2,180**	**1,835**

[a] Appointed Deputy Chairman of the Executive Board effective May 6, 2016; his annual base salary, targets for one-year variable compensation and the allocation of multi-year variable compensation were adjusted as of this date.
[b] In some cases, fees for other offices held are offset against variable compensation contained in fringe benefits;
2015: Wessel €63 thousand; 2016: Kullmann €15 thousand, Kaufmann €73 thousand, Wessel €100 thousand, Wolf €45 thousand.
[c] The one-year variable compensation for 2015 corresponds to the actual payments made in 2016 for 2015 (a correction has been made for any discrepancies between the actual payments and the estimates made in the remuneration report in 2015).
[d] The one-year variable compensation for 2016 has not yet been finalized; estimate based on assumptions made for provisions.

Former Executive Board members, including members who left the Executive Board in 2016

Total remuneration for former members of the Executive Board and their surviving dependents was €1,722 thousand in 2016 (2015: €2,729 thousand).

10.2 Remuneration of the Supervisory Board

The remuneration of the Supervisory Board is governed by Section 15 of the Articles of Incorporation of Evonik Industries AG.

The remuneration system takes account of the responsibilities and scope of activities of the members of the Supervisory Board. In addition to reimbursement of their expenses and value-added tax payable on their remuneration and expenses, the members of the Supervisory Board receive a fixed annual payment. Their remuneration does not include a variable component.

Different levels of fixed annual remuneration are paid to the Chairman (€250 thousand; 2015: €200 thousand), Deputy Chairman (€175 thousand; 2015: €130 thousand), and other members of the Supervisory Board (€100 thousand; 2015: €90 thousand).

The chairperson of the Executive Committee receives additional remuneration of €60 thousand (2015: €45 thousand), the deputy chairperson €45 thousand (2015: €30 thousand), and the other members €35 thousand each (2015: €30 thousand). The chairperson of the Audit Committee receives additional remuneration of €75 thousand (2015: €45 thousand), the deputy chairperson €50 thousand (2015: €30 thousand), and the other members €40 thousand each (2015: €30 thousand). The chairperson of the Finance and Investment Committee receives additional remuneration of €50 thousand (2015: €35 thousand), the deputy chairperson €40 thousand (2015: €27.5 thousand), and the other members €30 thousand each (2015: €27.5 thousand). The additional remuneration for the Nomination Committee and the Mediation Committee is €20 thousand for the chairperson (2015: €30 thousand), €10 thousand for the deputy chairperson (2015: €15 thousand), and €10 thousand each for the other members (2015: €15 thousand). Entitlement to the additional remuneration for work on the Mediation Committee only applies if the committee is actually convened during the fiscal year.

Further, members of the Supervisory Board receive a fee of €1 thousand for each meeting of the Supervisory Board and its committees that they attend. If several meetings are held on the same day, this fee is only paid once.

Remuneration of the Supervisory Board

	Fixed remuneration		Remuneration for membership of a committee		Attendance fees		**Total**	
in €'000	**2016**	2015	**2016**	2015	**2016**	2015	**2016**	2015
Günter Adam (until December 10, 2015)	–	90	–	58	–	10	–	158
Martin Albers (from October 1, 2015)	100	23	30	2	10	1	140	26
Prof. Barbara Albert	100	90	–	–	6	5	106	95
Karin Erhard	100	90	50	30	10	9	160	129
Carmen Fuchs (from December 10, 2015)	100	8	–	–	6	–	106	8
Stephan Gemkow	100	90	30	28	9	9	139	127
Edeltraud Glänzer (from May 19, 2016)	117	–	50	–	6	–	173	–
Prof. Barbara Grunewald	100	90	40	30	10	9	150	129
Ralf Hermann	100	90	72	58	11	10	183	158
Prof. Wolfgang A. Herrmann	100	90	–	–	6	5	106	95
Dieter Kleren (until May 18, 2016)	42	90	–	–	3	5	45	95
Steven Koltes (until May 18, 2016)	42	90	4	45	1	8	47	143
Frank Löllgen	100	90	30	28	10	8	140	126
Dr. Siegfried Luther	100	90	75	45	10	10	185	145
Dr. Werner Müller	250	200	110	103	18	16	378	319
Jürgen Nöding (until September 30, 2015)	–	68	–	23	–	7	–	98
Norbert Pohlmann	100	90	40	8	10	6	150	104
Dr. Wilfried Robers	100	90	40	30	10	9	150	129
Michael Rüdiger	100	90	50	35	10	9	160	134
Anke Strüber-Hummelt (from May 19, 2016)	67	–	–	–	3	–	70	–
Ulrich Terbrack	100	90	–	–	6	5	106	95
Angela Titzrath (from May 19, 2016)	67	–	27	–	4	–	98	–
Dr. Volker Trautz	100	90	45	45	11	8	156	143
Michael Vassiliadis (until May 18, 2016)	73	130	35	58	6	12	114	200
Ulrich Weber (from May 19, 2016)	67	–	27	–	6	–	100	–
Dr. Christian Wildmoser (until May 18, 2016)	42	90	29	58	6	14	77	162
Total	**2,267**	**1,959**	**784**	**684**	**188**	**175**	**3,239**	**2,818**

Members who only serve on the Supervisory Board for part of a fiscal year receive remuneration on a pro rata basis. This also applies for increases in the remuneration for the Chairman and Deputy Chairman of the Supervisory Board and any increased remuneration paid for membership of or chairing a committee.

The remuneration and attendance fees paid to the Supervisory Board in 2015 and 2016 are presented on a cost basis. For members who joined or left the Supervisory Board during 2015 and 2016, the amounts are calculated on a pro rata basis.

As of December 31, 2016 there were no loans or advances to members of the Supervisory Board. In 2016 the members of the Supervisory Board did not receive any remuneration for services provided personally, especially consulting and referral services.

Finally, third-party financial loss insurance cover is provided for each member of the Supervisory Board to cover their statutory liability arising from their work on the Supervisory Board. In the event of a claim, this provides for a deductible of 10 percent of the damage, up to one-and-a-half times the individual member's fixed annual remuneration.

11. Report on expected developments

11.1 Economic background

Global economy expected to pick up slightly in 2017

We expect **global economic conditions** to improve gradually in 2017. However, they will remain below the long-term trend. Overall, we anticipate slightly stronger global momentum, with a growth rate of 2.6 percent in 2017 compared with 2.3 percent in 2016.

We assume that the ECB's monetary policy will remain expansionary and that the economy in Europe will be supported by higher state spending and investment. Nevertheless, economic development could be marred by political risks and risks in the financial sector. In view of this, we expect economic momentum to be slightly lower than in 2016.

We anticipate that the German economy will grow by 1.7 percent in 2017. Consumer spending and rising public spending will probably be the main growth drivers. By contrast, we assume that little growth impetus will come from capital expenditures and foreign trade.

We still see the USA as the keystone of global economic growth and expect the pace of growth to increase to 2.2 percent year-on-year in 2017. The new economic program in the USA includes higher state spending on infrastructure and tax cuts, which should have a positive impact on economic growth. Moreover, growth should be supported by higher capital expenditures by the corporate sector. By contrast, the increase in domestic consumption will probably be moderate due to higher inflation. The Federal Reserve will most likely continue its policy of raising interest rates as a result of rising inflation and low unemployment.

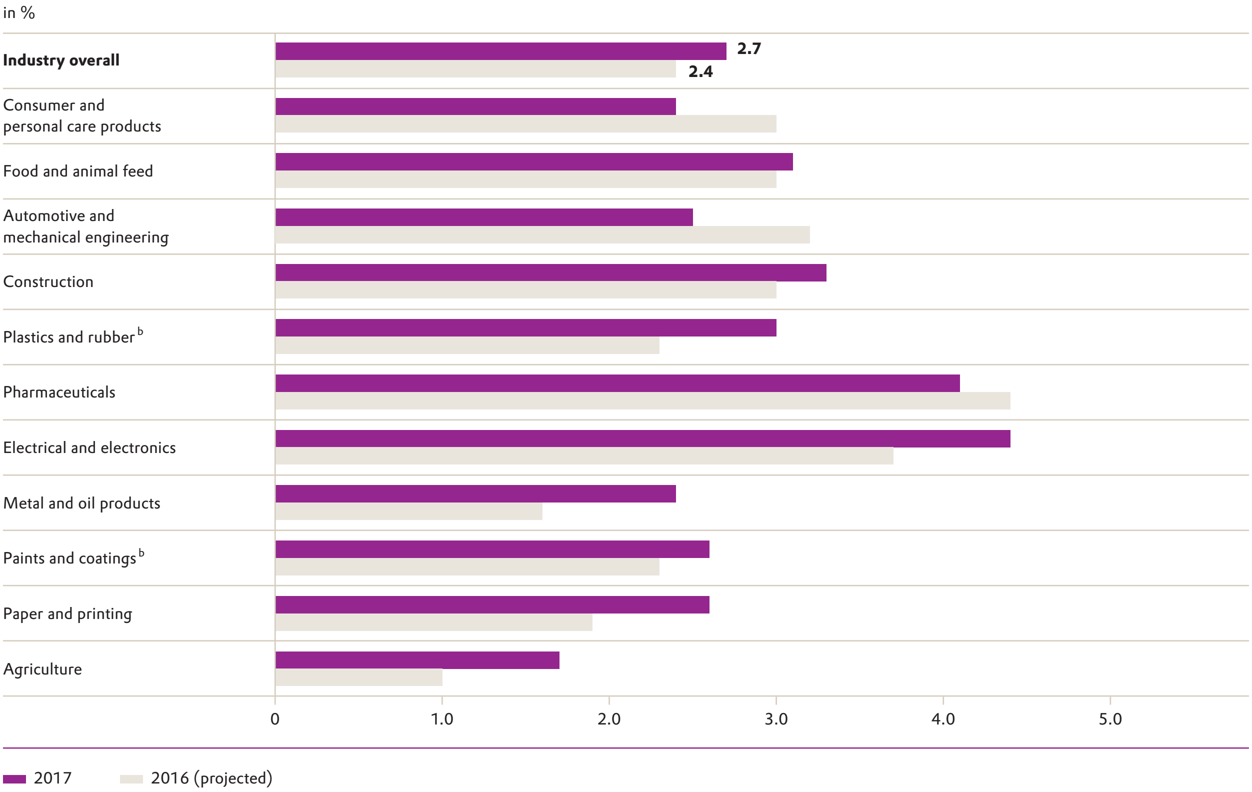
The present challenges in the emerging markets look set to continue in 2017. Many countries are still suffering from structural problems such as dependence on commodity prices, poor competitiveness and budget constraints. In addition, if the Federal Reserve tightens its monetary policy, this could accelerate the outflow of capital and increase the cost of financing. Overall, we expect economic growth in the emerging markets to be slightly stronger as Brazil and Russia will probably move out of recession in 2017.

We assume that growth will slow further in China. Given the Chinese government's willingness to take action to support the economy, we nevertheless expect gross domestic product to rise by 6.4 percent in 2017.

However, the projection for the global economy is marked by considerable uncertainty. Apart from geopolitical conflicts, action by central banks could cause the global economic development to differ from our expectations. Alongside the as yet unclear impact of the UK's exit from the European Union, uncertainty about the economic development of the USA has increased. Furthermore, global growth could be dampened if the slowdown of the Chinese economy gathers pace.

GDP forecast for 2017

Forecast for Evonik's end-customer industries 2017[a]



[a] Rounded amounts.
[b] Where not directly assigned to other end-customer industries.

Along with global economic momentum, trends in our **end-customer industries** influence the development of Evonik's market environment. In view of the slight improvement in macroeconomic conditions compared with 2016, we assume a moderate rise in general economic growth in 2017. Cyclical sectors such as construction and the electrical and electronics sector could see an upturn in growth, but output is expected to grow more slowly in the automotive and mechanical engineering sectors. We anticipate a continuation of the present pace of growth in the food and animal feed industry, but demand for consumer and personal care products could rise somewhat more slowly. Regionally the trend will remain subdued, especially in Europe, which is Evonik's most important market.

The development of our end-customer industries is likely to have a varied impact on industrial value chains and our business. According to our estimate, the global inflation rate will rise as a result of a slight economic upturn and the upward price impact of raw materials.

We assume there will be a perceptible rise in Evonik's raw materials index at the start of 2017, but do not expect this to be lasting. The increase is attributable on the one hand to the decision by OPEC and non-OPEC countries to cut oil production, and on the other to the speculative market environment in China. Overall, we also expect to see higher prices for Evonik-specific raw materials. We therefore estimate that in 2017 Evonik's raw material index will be higher than in 2016, but lower than in 2015.

11.2 Outlook

Basis for our forecast:
- Global growth of 2.6 percent
- Euro/US dollar exchange rate at same level as in prior year (US$ 1.10)
- Internal raw material cost index perceptibly higher than in prior year

Sales and earnings

Following the acquisition of the Air Products specialty additives business on January 3, 2017, this forecast is for the Evonik Group including these business activities. Since the acquisition of Huber's silica business, which was announced in December 2016, will probably only be closed in the second half of 2017, these operations are not included in this forecast.

We anticipate higher **sales** in 2017 (2016: €12.7 billion). Thanks to our strong market positions, balanced portfolio and concentration on high-growth businesses, we assume continued high demand for our products and perceptible volume growth. Average selling prices are expected to decline slightly across our entire product portfolio.

Overall, we aim to grow our operating earnings year-on-year and expect **adjusted EBITDA** to be between €2.2 billion and €2.4 billion (2016: €2.165 billion).

This is based on the assumption that the Air Products specialty additives business will contribute sales of around €1.0 billion and adjusted EBITDA of around €250 million in fiscal 2017, including initial positive synergies of €10–20 million. The operations acquired will be integrated into the Nutrition & Care and Resource Efficiency segments. Based on sales and adjusted EBITDA, they will be allocated roughly equally between these two segments.

In the majority of businesses in the Nutrition & Care segment the earnings trend will be stable or slightly positive compared with the previous year. Moreover, the Air Products activities allocated to this segment should make a positive contribution to earnings. We anticipate lower average annual selling prices for essential amino acids for animal nutrition following their previously high level, especially at the start of 2016. Overall, we therefore assume that earnings in the Nutrition & Care segment will be lower than in the previous year.

We expect a considerable rise in earnings in the Resource Efficiency segment in 2017 after a very successful business performance in 2016. The Air Products activities allocated to this segment should contribute to this, and a good business performance is also expected in most of the other businesses.

We expect the Performance Materials segment to report considerably higher earnings, driven by a year-on-year improvement in the supply/demand situation for key products and steps taken to raise efficiency. We assume that the favorable supply/demand situation seen at the beginning of the year will normalize during the year.

The earnings impact of higher raw material prices on individual businesses will vary, but should largely balance out across the portfolio as a whole.

In 2017, the return on capital employed **(ROCE)** should again be above the cost of capital (10.0 percent before taxes). Nevertheless, it will be perceptibly lower than in 2016 (14.0 percent) as a consequence of the substantial acquisition-driven rise in capital employed.

Financing and investments

We expect **capital expenditures** to be around €1.0 billion. That would be around the 2016 level (€0.96 billion), even though it includes the capital expenditures for the Air Products specialty additives business, and pro rata expenditures for construction of the world-scale facility for feed additives in Singapore.

The **free cash flow** is expected to be clearly positive again, but will fall considerably short of the high level reported for 2016 (€810 million), which benefited, in particular, from high inflows from the optimization of net working capital.

Occupational and plant safety

We assume that the **accident frequency** [1] indicator will be stable in 2017 (2016: 1.2) and expect it to be below the upper limit of 1.3 defined for 2017. Our long-term goal is still a sustained value of less than 1.0. We are retaining our target of a maximum of 48 for the plant safety indicator **incident frequency** [2] and expect it to be between 43 and 48 in 2017, in other words, a lasting trend to improvement over the long term.

This report contains forward-looking statements based on the present expectations, assumptions and forecasts made by the Executive Board and the information available to it. These forward-looking statements do not constitute a guarantee of future developments and earnings expectations. Future performance and developments depend on a wide variety of factors which contain a number of risks and unforeseeable factors and are based on assumptions that may prove incorrect.

[1] Number of accidents involving Evonik employees and contractors' employees under Evonik's direct supervision per 1 million working hours.
[2] Number of incidents per 1 million hours worked in the production facilities operated by the segments, taking 2008 as the reference base (expressed in percentage points: 2008 = 100).

CONSOLIDATED FINANCIAL STATEMENTS

Income statement

Income statement for the Evonik Group

in € million	Note	2016	2015
Sales	6.1	12,732	13,507
Cost of sales	6.2	−8,534	−9,096
Gross profit on sales		**4,198**	**4,411**
Selling expenses	6.2	−1,515	−1,447
Research and development expenses	6.2	−438	−434
General administrative expenses	6.2	−686	−693
Other operating income	6.3	321	445
Other operating expenses	6.4	−543	−603
Result from investments recognized at equity	6.5	−39	−15
Income before financial result and income taxes, continuing operations		**1,298**	**1,664**
Interest income		80	46
Interest expense		−229	−245
Other financial income/expense		−25	−24
Financial result	6.6	**−174**	**−223**
Income before income taxes, continuing operations		**1,124**	**1,441**
Income taxes	6.7	−362	−422
Income after taxes, continuing operations		**762**	**1,019**
Income after taxes, discontinued operations	5.3	96	−17
Income after taxes		**858**	**1,002**
thereof attributable to			
Non-controlling interests		14	11
Shareholders of Evonik Industries AG (net income)		844	991
Earnings per share in € (basic and diluted)	6.8	**1.81**	**2.13**

Statement of comprehensive income

Statement of comprehensive income for the Evonik Group

in € million	2016	2015
Income after taxes	**858**	**1,002**
Comprehensive income that will be reclassified subsequently to profit or loss	**273**	**287**
Gains/losses on available-for-sale securities	19	21
Gains/losses on hedging instruments	149	32
Currency translation adjustment	137	245
Attributable to the equity method (after income taxes)	1	6
Deferred taxes	−33	−17
Comprehensive income that will not be reclassified subsequently to profit or loss	**−417**	**253**
Remeasurement of the net defined benefit liability for defined benefit pension plans	−585	361
Attributable to the equity method (after income taxes)	–	−4
Deferred taxes	168	−104
Other comprehensive income after taxes	**−144**	**540**
Total comprehensive income	**714**	**1,542**
thereof attributable to		
Non-controlling interests	15	12
Shareholders of Evonik Industries AG	699	1,530
Total comprehensive income attributable to shareholders of Evonik Industries AG	**699**	**1,530**
thereof attributable to		
continuing operations	603	1,547
discontinued operations	96	−17

Balance sheet

Balance sheet for the Evonik Group

in € million	Note	Dec. 31, 2016	Dec. 31, 2015
Intangible assets	7.1	3,312	3,168
Property, plant and equipment	7.2	6,041	5,808
Investments recognized at equity	7.3	43	53
Financial assets	7.4	213	116
Deferred taxes	7.12	1,162	1,110
Current income tax assets	7.12	8	11
Other receivables	7.6	58	54
Non-current assets		**10,837**	**10,320**
Inventories	7.5	1,679	1,763
Current income tax assets	7.12	228	111
Trade accounts receivable	7.6	1,661	1,813
Other receivables	7.6	300	265
Financial assets	7.4	317	365
Cash and cash equivalents	8.3	4,623	2,368
Current assets		**8,808**	**6,685**
Total assets		**19,645**	**17,005**

in € million	Note	Dec. 31, 2016	Dec. 31, 2015
Issued capital		466	466
Capital reserve		1,166	1,166
Accumulated income		5,716	5,821
Accumulated other comprehensive income		310	40
Equity attributable to shareholders of Evonik Industries AG		**7,658**	**7,493**
Equity attributable to non-controlling interests		92	83
Equity	7.7	**7,750**	**7,576**
Provisions for pensions and other post-employment benefits	7.8	3,852	3,349
Other provisions	7.9	817	854
Deferred taxes	7.12	453	479
Other income tax liabilities	7.12	173	150
Financial liabilities	7.10	3,334	1,415
Other payables	7.11	71	106
Non-current liabilities		**8,700**	**6,353**
Other provisions	7.9	1,035	1,177
Other income tax liabilities	7.12	83	209
Financial liabilities	7.10	401	291
Trade accounts payable	7.11	1,212	1,090
Other payables	7.11	464	309
Current liabilities		**3,195**	**3,076**
Total equity and liabilities		**19,645**	**17,005**

Statement of changes in equity

Statement of changes in equity for the Evonik Group Note 7.9

in € million	Issued capital	Capital reserve	Accumulated income	Treasury shares	Accumulated other comprehensive income	Attributable to shareholders of Evonik Industries AG	Attributable to non-controlling interests	Total equity
As of January 1, 2015	**466**	**1,165**	**5,040**	**–**	**–244**	**6,427**	**95**	**6,522**
Capital increases/decreases	–	–	–	–	–	–	3	3
Dividend distribution	–	–	–466	–	–	–466	–11	–477
Purchase of treasury shares	–	–	–	–14	–	–14	–	–14
Share-based payment	–	3	–	–	–	3	–	3
Sale of treasury shares	–	–2	–	14	–	12	–	12
Income after taxes	–	–	991	–	–	991	11	1,002
Other comprehensive income after taxes	–	–	253	–	286	539	1	540
Total comprehensive income	–	–	1,244	–	286	1,530	12	1,542
Other changes	–	–	3	–	–2	1	–16	–15
As of December 31, 2015	**466**	**1,166**	**5,821**	**–**	**40**	**7,493**	**83**	**7,576**
Capital increases/decreases	–	–	–	–	–	–	4	4
Dividend distribution	–	–	–536	–	–	–536	–9	–545
Purchase of treasury shares	–	–	–	–15	–	–15	–	–15
Share-based payment	–	3	–	–	–	3	–	3
Sale of treasury shares	–	–3	–	15	–	12	–	12
Income after taxes	–	–	844	–	–	844	14	858
Other comprehensive income after taxes	–	–	–417	–	272	–145	1	–144
Total comprehensive income	–	–	427	–	272	699	15	714
Other changes	–	–	4	–	–2	2	–1	1
As of December 31, 2016	**466**	**1,166**	**5,716**	**–**	**310**	**7,658**	**92**	**7,750**

Cash flow statement

Cash flow statement for the Evonik Group

in € million	Note	2016	2015
Income before financial result and income taxes, continuing operations		1,298	1,664
Depreciation, amortization, impairment losses/reversal of impairment losses on non-current assets		747	764
Result from investments recognized at equity		39	15
Gains/losses on the disposal of non-current assets		3	−144
Change in inventories		107	52
Change in trade accounts receivable		173	−44
Change in trade accounts payable and current advance payments received from customers		101	−18
Change in provisions for pensions and other post-employment benefits		−173	−162
Change in other provisions		−124	111
Change in miscellaneous assets/liabilities		113	92
Cash outflows for interest		−101	−67
Cash inflows from interest		56	22
Cash inflows from dividends		11	19
Cash inflows/outflows for income taxes		−492	−336
Cash flow from operating activities, continuing operations		**1,758**	**1,968**
Cash flow from operating activities, discontinued operations		–	3
Cash flow from operating activities	8.1	**1,758**	**1,971**
Cash outflows for investments in intangible assets, property, plant and equipment		−948	−916
Cash outflows for investments in shareholdings		−149	−70
Cash inflows from divestments of intangible assets, property, plant and equipment		17	13
Cash inflows/outflows from divestment of shareholdings		1	421
Cash inflows/outflows relating to securities, deposits and loans		218	111
Transfers to the pension trust fund (CTA)		−22	−219
Cash flow from investing activities	8.2	**−883**	**−660**
Cash inflows/outflows relating to capital contributions		4	3
Cash outflows for dividends to shareholders of Evonik Industries AG		−536	−466
Cash outflows for dividends to non-controlling interests		−9	−11
Cash outflows for the purchase of treasury shares		−15	−14
Cash inflows from the sale of treasury shares		15	15
Cash inflows from the addition of financial liabilities		2,064	844
Cash outflows for repayment of financial liabilities		−98	−238
Cash outflows in connection with financial transactions		−41	–
Cash flow from financing activities		**1,384**	**133**
Change in cash and cash equivalents		**2,259**	**1,444**
Cash and cash equivalents as of January 1		**2,368**	**921**
Change in cash and cash equivalents		2,259	1,444
Changes in exchange rates and other changes in cash and cash equivalents		−4	3
Cash and cash equivalents as on the balance sheet as of December 31	8.3	**4,623**	**2,368**

Notes to the consolidated financial statements of the Evonik Group

1. Segment report

Segment report by operating segments Note 9.1

	Nutrition & Care		Resource Efficiency		Performance Materials	
in € million	**2016**	2015	**2016**	2015	**2016**	2015
External sales	4,316	4,924	4,473	4,279	3,245	3,435
Internal sales	32	34	40	53	113	133
Total sales	4,348	4,958	4,513	4,332	3,358	3,568
Result from investments recognized at equity	–45	–25	3	1	–1	–1
Adjusted EBITDA	1,006	1,435	977	896	371	309
Adjusted EBITDA margin in %	23.3	29.1	21.8	20.9	11.4	9.0
Adjusted EBIT	795	1,214	751	675	234	174
Capital employed (annual average)	2,965	2,923	2,776	2,726	1,278	1,467
ROCE in %	26.8	41.5	27.1	24.8	18.3	11.9
Depreciation and amortization[a]	–209	–212	–224	–222	–134	–132
Capital expenditures[a]	315	250	266	241	168	183
Financial investments	140	5	15	54	19	22
No. of employees as of December 31	7,594	7,165	8,928	8,662	4,393	4,380

Prior-year figures restated.

[a] For intangible assets, property, plant and equipment. For the segmentation of impairment losses and reversals of impairment losses, see Notes 6.3 and 6.4.

Segment report by regions Note 9.2

	Germany		Other European countries		North America	
in € million	**2016**	2015	**2016**	2015	**2016**	2015
External sales	2,441	2,604	3,844	4,142	2,491	2,594
Goodwill as of December 31[a]	1,544	1,542	579	546	398	370
Other intangible assets, property, plant and equipment as of December 31[a]	2,956	2,832	568	555	1,230	1,052
Capital expenditures	478	427	72	88	240	208
No. of employees as of December 31	21,783	21,514	2,715	2,681	3,932	3,801

Prior-year figures restated.

[a] Non-current assets according to IFRS 8.33 b.

Services		Other operations		Corporate, consolidation		**Total Group (continuing operations)**	
2016	2015	**2016**	2015	**2016**	2015	**2016**	2015
683	828	15	51	–	−10	12,732	13,507
1,947	1,886	38	96	−2,170	−2,202	–	–
2,630	2,714	53	147	−2,170	−2,212	12,732	13,507
4	9	–	1	–	–	−39	−15
151	159	−109	−119	−231	−215	2,165	2,465
22.1	19.2	–	–	–	–	17.0	18.2
32	50	−122	−136	−242	−225	1,448	1,752
572	539	−137	18	2,879	2,857	10,333	10,530
5.6	9.3	–	–	–	–	14.0	16.6
−117	−107	−13	−16	−10	−11	−707	−700
189	177	20	24	2	2	960	877
10	6	7	3	–	–	191	90
12,892	12,668	211	391	333	310	34,351	33,576

Central and South America		Asia-Pacific		Middle East, Africa		**Total Group (continuing operations)**	
2016	2015	**2016**	2015	**2016**	2015	**2016**	2015
772	916	2,765	2,796	419	455	12,732	13,507
33	32	278	274	–	–	2,832	2,764
223	178	1,535	1,587	9	8	6,521	6,212
22	67	147	86	1	1	960	877
753	668	4,982	4,751	186	161	34,351	33,576

2. General information

Evonik Industries AG is an international specialty chemicals company headquartered in Germany. Its registered office is at Rellinghauser Straße 1–11, 45128 Essen (Germany), and the company is registered in the Commercial Register at Essen District Court under HRB No. 19474.

As a subsidiary of RAG-Stiftung, Essen (Germany), Evonik Industries AG and its subsidiaries are included in the consolidated financial statements prepared by RAG-Stiftung. The consolidated financial statements of RAG-Stiftung are published in the German Federal Gazette (Bundesanzeiger).

The present consolidated financial statements of Evonik Industries AG and its subsidiaries (referred to jointly as Evonik or the Group) were prepared by the Executive Board of Evonik Industries AG at its meeting on February 17, 2017, discussed at the meeting of the Audit Committee on February 23, 2017, and presented to the Supervisory Board for approval at its meeting on March 1, 2017. The consolidated financial statements are also published in the German Federal Gazette.

3. Basis of preparation of the financial statements

3.1 Compliance with IFRS

As permitted by Section 315 a Paragraph 1 of the German Commercial Code (HGB), the present consolidated financial statements have been prepared on the basis of the International Financial Reporting Standards (IFRS) and comply with these standards. The IFRS comprise the standards (IFRS, IAS) issued by the International Accounting Standards Board (IASB), London (UK) and the interpretations (IFRIC, SIC) of the IFRS Interpretations Committee (IFRS IC), as adopted by the European Union.

3.2 Presentation of the financial statements

The consolidated financial statements cover the period from January 1 to December 31, 2016 and are presented in euros. All amounts are stated in millions of euros (€ million) except where otherwise indicated. In some cases, rounding may mean that the figures in this report do not add up exactly to the totals stated, and percentages do not correlate exactly to the figures presented.

The recognition and valuation principles and items presented in the consolidated financial statements are in principle consistent from one period to the next. Deviations from this principle resulting from changes in accounting standards are outlined in Note 3.3, or in the relevant Notes. To enhance the clarity of presentation, some items are combined in the income statement, statement of comprehensive income, balance sheet and statement of changes in equity and explained in the Notes.

The income statement has been prepared using the cost-of-sales method. Expenses are divided by function.

The statement of comprehensive income is a reconciliation from income after taxes as shown in the income statement to the Group's total comprehensive income, taking into account other comprehensive income.

On the balance sheet, assets and liabilities are classified by maturity. They are classified as current if they are due or expected to be realized within twelve months from the reporting date.

The statement of changes in equity shows changes in the issued capital, reserves attributable to shareholders of Evonik Industries AG and changes in non-controlling interests in the reporting period. Transactions with shareholders in their capacity as owners are also shown separately here.

The cash flow statement provides information on the Group's cash flows. The cash flow from operating activities is calculated using the indirect method, where income before financial result and income taxes from continuing operations is adjusted for the effects of non-cash income and expenses and items that are allocated to investing or financing activities. Certain other changes in amounts shown on the balance sheet are added to the result.

The Notes contain basic information on the financial statements, supplementary information on the above components of the financial statements and further information such as the segment report.

3.3 New accounting standards

Accounting standards to be applied for the first time

A number of revised and newly issued standards and interpretations had to be applied for the first time in fiscal 2016. However, they did not have a material impact on the consolidated financial statements.

Accounting standards that are not yet mandatory

The IASB has issued further accounting standards which did not become mandatory in fiscal 2016 or have not yet been officially adopted by the European Union. The accounting standards that could be of relevance for the consolidated financial statements are outlined below. They will probably be applied for the first time from the date on which they come into force.

Accounting standards that are not yet mandatory

Standard a: Issued by the IASB b: Effective date as per IASB c: Effective date as per EU d: Publication in the Official Journal of the EU		**Subject of standard—Expected impact on the consolidated financial statements**
IFRS 15 Revenue from Contracts with Customers	a: May 28, 2014/ Sep. 11, 2015 b: Jan. 1, 2018 c: Jan. 1, 2018 d: Oct. 29, 2016	IFRS 15 contains extensive new rules for the recognition of revenues arising from contracts with customers for all sectors. A five-step model outlines in detail aspects such as identifying distinct performance obligations, the level of the expected consideration, taking into account variable price components, and the distribution of the expected consideration among the identified performance obligations. Further, there are now uniform criteria to determine whether a performance obligation is satisfied at a point in time or over time. This new standard will replace the following current standards and interpretations: IAS 11, IAS 18, IFRIC 13, IFRIC 15, IFRIC 18 and SIC-31. It is planned that IFRS 15 should be applied fully retrospectively from January 1, 2018. An analysis of contracts and the subsequent design phase has identified areas where there is a possible need for change. A change in the timing of revenue recognition may result, among other things, from identification of an additional performance obligation, a change in the assessment of whether revenue is realized at a point in time or over time, or of the timing of the transfer of control. New separate performance obligations have been identified in the following cases. The expected impact on posting and sales is outlined below: • Freight and transportation services provided after transfer of control ◦ Transaction costs are allocated to these freight services and the revenue is realized later than the corresponding product revenue. The resulting revenue effect in 2016 was less than 0.1 percent of consolidated sales. • The following are not expected to have any impact, either for reasons of materiality or because they are not applicable: ◦ Dosing systems, which were previously transferred as an additional benefit in connection with the sale of a product ◦ Extended warranties that go well beyond the statutory requirements and contain a service component ◦ Exclusive sales rights An altered assessment of whether a performance obligation is satisfied at a point in time or over time is possible in the following cases, but at present they are not expected to have any impact either for reasons of materiality or because they are not currently applicable: • Licenses that grant a right of use (realization at a point in time) or right of access (realization over time) to the underlying intellectual property. • Development contracts for healthcare products, which are realized over time if Evonik has an “enforceable right” to receive payment at any time or realized at a point in time if Evonik does not have such rights or development entails an alternative benefit for Evonik. An altered assessment of the time of the transfer of control is possible in the following cases: • Product sales with certain supply conditions for overseas shipment. ◦ Under certain supply conditions, the timing of the transfer of control to the customer is later than the present timing of revenue recognition (transfer of opportunities and risks). The effect of the shift in sales compared with the present timing of revenue recognition amounts to less than 0.1 percent of consolidated sales in fiscal 2016. • The following case is not expected to have any impact as it is not currently relevant: ◦ Agreements on consignment warehouses Further, under IFRS 15 the level of revenues recognized over the total period may differ from previous practice. This is possible in the following cases: • Prepayments by customers, where it may be necessary to recognize a financing component that would increase sales ◦ Financing components will be recognized in future if the underlying agreement with the customer runs for more than one year. The resultant increase in sales is less than 0.1 percent of consolidated sales in fiscal 2016. • Agreements on the unconditional repurchase of products. ◦ In some cases, products are sold to customers with an unconditional repurchase agreement, which is classified as a lease. The necessary reduction in sales in this context is less than 0.1 percent of consolidated sales in fiscal 2016. • Exchange-type transactions between competitors. ◦ In future, no revenue will be recognized for exchange-type transactions with competitors; the transaction will be recognized as a financing transaction. The reduction in sales is less than 0.1 percent of consolidated sales in fiscal 2016.

Accounting standards that are not yet mandatory

Standard a: Issued by the IASB b: Effective date as per IASB c: Effective date as per EU d: Publication in the Official Journal of the EU		**Subject of standard—Expected impact on the consolidated financial statements**
		Finally, the cost of services that are incurred after inception of the contract and can be clearly assigned to the contract must be capitalized and depreciated over the period of time in which the associated goods were transferred to the customer or the services were provided. This is not currently expected to have any impact. Application of IFRS 15 requires adjustments to processes and systems. These will be introduced when the implementation phase is finalized in 2017. Further, new business transactions are constantly being assessed for the potential impact of IFRS 15 and the impact on the notes to the consolidated financial statements is being analyzed in detail.
IFRS 9 Financial Instruments	a: Jul. 24, 2014 b: Jan. 1, 2018 c: Jan. 1, 2018 d: Nov. 29, 2016	IFRS 9 is the replacement for IAS 39 Financial Instruments: Recognition and Measurement. The main changes in IFRS 9 compared with the old standard IAS 39 comprise the introduction of completely new classification and measurement rules for financial assets, the introduction of a new impairment model which should result in more timely recognition of losses, extension of the permitted hedged items, a modified assessment of the effectiveness of hedge accounting relationships, and extended information in the notes. Introduction of IFRS 9 at Evonik will result in changes in the classification and measurement of other investments—depending on the options applied—and in the classification of certain securities. Initial application of the expected loss model will probably lead to an increase in risk provisions with a corresponding reduction in equity in the transition phase. However, in view of the short maturity and high quality of the assets held by the Evonik Group, this initial effect is expected to be relatively low. In subsequent years, the introduction of the impairment model could result in greater volatility of the income statement. In the area of hedge accounting, there will be changes in financial risk management in the Evonik Group, especially with regard to the management of risks, extension of its scope and documentation of the hedging process.
Amendments to IFRS 10 and IAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	a: Sep. 11, 2014/ Dec. 17, 2015 b: open c: open d: open	The purpose of this amendment is to eliminate an inconsistency between IFRS 10 and IAS 28 in the event of the sale or contribution of assets to an associate or joint venture. The amendment provides that in the future the full gain or loss resulting from such transactions should only be recognized if the assets sold or contributed constitute a business as defined in IFRS 3. Otherwise, only partial gain or loss recognition will be permitted. The legal form of the assets sold or contributed is not relevant. In 2015 the IASB postponed the date of first-time application indefinitely. This amendment is not currently relevant for the consolidated financial statements.
IFRS 16 Leases	a: Jan. 13, 2016 b: Jan. 1, 2019 c: open d: open	The new standard has far-reaching implications for the recognition of leases by the lessee. Under IAS 17, the transfer of substantially all opportunities and risks of the leased asset was decisive for recognition of a lease by the lessee. In future, the lessee will generally recognize each lease on the balance sheet in the form of a right-of-use for the leased asset and a corresponding liability. For lessors, by contrast, the accounting principles are essentially unchanged, especially as regards the continued requirements for the classification of leases. IFRS 16 supersedes IAS 17 and the associated interpretations IFRIC 4, SIC-15 and SIC-27. The impact on the consolidated financial statements will be examined at a later date.
Amendments to IAS 12 Recognition of Deferred Tax Assets for Unrealised Losses	a: Jan. 19, 2016 b: Jan. 1, 2017 c: open d: open	The amendments clarify the recognition of deferred tax assets for unrealized losses on debt instruments recognized at fair value. This amendment is not currently relevant for the consolidated financial statements.
Amendments to IAS 7 Statements of Cash Flows	a: Jan. 29, 2016 b: Jan. 1, 2017 c: open d: open	The changes relate to additional disclosure requirements for the notes to the financial statements to enable users to evaluate changes in liabilities resulting from a company’s financing activities. These amendments affect the disclosures in the notes to the consolidated financial statements.

Accounting standards that are not yet mandatory

Standard a: Issued by the IASB b: Effective date as per IASB c: Effective date as per EU d: Publication in the Official Journal of the EU		Subject of standard—Expected impact on the consolidated financial statements
Clarifications to IFRS 15 Revenue from Contracts with Customers	a: Apr. 12, 2016 b: Jan. 1, 2018 c: open d: open	The clarifications relate to the following issues: identification of performance obligations and checking the contract for separability, classification as principal or agent, and license revenues. In addition, two further principles have been added to facilitate initial application of the standard. For further information on the impact of IFRS 15 on the consolidated financial statements, please see the relevant section above.
Amendments to IFRS 2 Classification and Measurement of Share-based Payment Transactions	a: Jun. 20, 2016 b: Jan. 1, 2018 c: open d: open	The amendments clarify the measurement of cash-settled share-based payments, the classification of share-based payments where taxes are withheld, and reclassification of cash-settled share-based payments as equity-settled share-based payments. The clarifications will not have any impact on the consolidated financial statements.
Annual Improvement Process (IFRSs 2014–2016 Cycle)	a: Dec. 8, 2016 b: Jan. 1, 2017 / Jan. 1, 2018 c: open d: open	Annual Improvements to IFRSs 2014–2016 Cycle comprises amendments to IFRS 1, IFRS 12 and IAS 28. They comprise improvements and clarifications to existing standards. The changes are not currently relevant for the consolidated financial statements or could affect details given in the notes to the consolidated financial statements.
IFRIC Interpretation 22 Foreign Currency Transactions and Advance Consideration	a: Dec. 8, 2016 b: Jan. 1, 2018 c: open d: open	This interpretation clarifies the exchange rate to be used for initial recognition of a foreign currency transaction in the functional currency of an entity if the entity pays or receives consideration in advance for the assets, expenses or income related to the transaction. Evonik has already applied this principle in the past.

3.4 Consolidation methods and scope of consolidation

Scope of consolidation

Alongside Evonik Industries AG, all material German and foreign subsidiaries directly or indirectly controlled by Evonik Industries AG are fully consolidated in the consolidated financial statements of Evonik Industries AG. Evonik Industries AG controls a company if it is exposed to, or has rights to, variable returns from its involvement with the company and has the ability to affect those returns through its power over the company.

Joint operations are included in the consolidated financial statements on a pro rata basis. A joint operation is an arrangement where the parties that have joint control have rights to the assets, and obligations for the liabilities, relating to the arrangement.

Joint ventures and associates are generally recognized at equity. A joint venture is a joint arrangement where the Group has joint control, together with other parties, and has rights to the net assets of the arrangement. Associates are companies where the Evonik Group has a significant influence but does not have control or joint control of financial and operating policies.

Companies whose influence on the assets, financial position and earnings of the Group, both individually and in aggregate, is negligible are carried at amortized cost.

Changes in the scope of consolidation are outlined in Note 5.1.

Consolidation methods

The financial statements of the consolidated German and foreign subsidiaries are prepared using uniform accounting and valuation principles.

Capital is consolidated at the time of acquisition by offsetting the carrying amount of the business acquired against the pro rata revalued equity of the subsidiary. Ancillary acquisition costs are not included in the carrying amount of the subsidiary. Instead they are recognized as expense in the income statement. The assets and liabilities (net assets) of the subsidiary are included at their fair values. If shares in the subsidiary are held before acquiring control, they must be revalued and any resultant change in value must be recognized in the income statement in other operating income or other operating expenses. Gains or losses recognized in other comprehensive income must be derecognized in the same way as if the acquirer had divested the shares previously held. Any remaining excess of the acquisition cost over the fair value of the net assets is recognized as goodwill. Negative differences are included in income following a renewed examination of the fair value of the net assets.

Changes in shareholdings in a previously consolidated subsidiary that do not result in a loss of control are recognized directly in equity as a transaction between owners. In this case, the shares attributable to the owners of the parent company and to the other shareholders are adjusted to reflect the changes in their respective stakes in the subsidiary. Any difference between this adjustment and the fair value of the consideration paid or received is recognized directly in equity and allocated to the shares attributable to the owners of the parent company. Directly related transaction costs are also recognized as a transaction between owners that has no impact on income, with the exception of costs for the issuance of debt or equity instruments, which are still measured in accordance with the criteria for recognizing financial instruments. Cash inflows and outflows relating to these transactions are presented in the cash flow from financing activities.

A subsidiary must be deconsolidated as of the date on which control is lost. The net assets of the subsidiary and the non-controlling interests (in other words, the parent company's share in the net assets of the subsidiary) are derecognized. The gain or loss on the divestments must be calculated from the Group viewpoint. It is derived from the difference between the proceeds of the divestment (selling price less costs to sell) and the parent company's share in the divested net assets of the subsidiary (including the remaining hidden reserves and liabilities, and any goodwill shown on the balance sheet). The shares in the former subsidiary still held by Evonik are revalued at fair value as of the date on which control is lost. All resulting gains and losses are recognized in the income statement as other operating income or other operating expenses. In addition, amounts shown in equity under accumulated other comprehensive income are also reclassified to the income statement, except where another accounting standard requires direct transfer to revenue reserves.

Intragroup income and expenses, profits, losses, receivables and liabilities between consolidated subsidiaries are fully eliminated. In the case of joint operations, elimination is pro rata. Write-downs on shares in such companies recognized in the separate financial statements are reversed.

Joint operations are recognized in the consolidated financial statements at the proportionate amount of their assets and liabilities, revenues and expenses in accordance with Evonik's rights and obligations.

The same consolidation principles apply for companies accounted for using the equity method. In this case, any goodwill is recognized in the carrying amount of the investment. The financial statements of the companies recognized at equity are prepared using uniform accounting and valuation principles, see Note 3.6 "Investments recognized at equity."

3.5 Currency translation

The financial statements of Evonik Industries AG and its subsidiaries are generally prepared in their functional currency. The functional currency is the currency used in the primary economic area in which the respective company operates.

In the separate financial statements prepared by these companies, business transactions in foreign currencies are translated at the exchange rate on the date of initial recognition. Any gains or losses resulting from the valuation of monetary assets and liabilities in foreign currencies are recognized in other operating income, other operating expenses, or other financial result at the closing rate on the reporting date.

In the consolidated financial statements, the assets and liabilities of all foreign subsidiaries are translated from their functional currency into euros at closing rates on the reporting date. Goodwill and hidden assets and liabilities from the acquisition of a foreign subsidiary are translated at the closing rate as assets and liabilities of the foreign subsidiary. Income and expense items are translated at average exchange rates for the year. The average annual exchange rates comprise the mean of the exchange rates at month-end over the past 13 months. Translation differences compared to the prior year and translation differences between the income statement and balance sheet are recognized in other comprehensive income. They are only reclassified to the income statement when the foreign subsidiary is divested.

The equity of foreign companies recognized using the equity method is translated in the same way.

Exchange rates

€1 corresponds to	Average annual rates 2016	Average annual rates 2015	Closing rates Dec. 31, 2016	Closing rates Dec. 31, 2015
Brazilian real (BRL)	3.86	3.70	3.43	4.31
British pound (GBP)	0.82	0.73	0.86	0.73
Chinese renminbi yuan (CNY)	7.32	6.99	7.32	7.06
Japanese yen (JPY)	121.26	134.52	123.40	131.07
Singapore dollar (SGD)	1.53	1.53	1.52	1.54
US dollar (USD)	1.10	1.11	1.05	1.09

3.6 Accounting policies

Revenue recognition

(a) Sales

Sales revenues arise from normal business activity.

The Nutrition & Care, Resource Efficiency and Performance Materials segments mainly generate sales by selling specialty chemicals to industrial customers for further processing. The Services segment principally provides services for the chemicals businesses, the management holding company, and external customers at Evonik's sites, for further details see Note 9.1.

Prices are contractually agreed between the parties to a transaction. Sales revenues are measured as the fair value of the consideration received or to be received less value-added tax and any discounts or bulk rebates granted. The general principle for revenue recognition is that both the revenues and the related costs can be measured reliably. It must also be sufficiently probable that the economic benefit will flow to the company.

Revenues from the sale of products are recognized, assuming that the main principles for revenue recognition are met, when the principal opportunities and risks associated with title to the products pass to the customer. This is generally determined by the international terms for commercial transactions (Incoterms®). Provisions are established for general risks arising from such sales on the basis of previous experience.

Revenues from services are recognized, assuming that the general conditions for revenue recognition in the period are met, when the percentage of completion can be reliably measured. Where the provision of services extends over more than one reporting period, revenues are recognized proportionately to the total service to be provided.

(b) Other revenues

Other revenues are only recognized if they can be determined reliably and it is sufficiently probable that the economic benefit will flow to the company.

Interest income is recognized on a pro rata temporis basis using the effective interest method. Income from royalties is accrued on the basis of the commercial terms of the underlying contract and recognized on a pro rata basis. Dividend income is recognized as of the date of the right to receipt of the payment.

Intangible assets

Intangible assets are capitalized at acquisition or production cost. Intangible assets with a finite useful life are amortized and an impairment test is conducted if there are indications of a possible impairment, see Note 3.6 “Impairment test.” Depending on the type of intangible asset, amortization is recognized in the cost of sales, selling expenses, research and development expenses or general administrative expenses. Intangible assets with an indefinite useful life are not amortized; instead they are tested for impairment at least once a year.

Goodwill has an indefinite useful life and is tested for impairment at least once a year.

Franchises, trademarks and licenses are amortized over their estimated useful life of between 5 and 25 years using the straight-line method. Some rights have an indefinite useful life. These are trademarks with no restrictions on their use. They are tested annually for impairment and to check that their useful life is still indefinite. If the assessment of the useful life of such trademarks has altered and is reclassified as finite, their carrying amounts are amortized over their estimated remaining useful life using the straight-line method.

Development costs are capitalized if they can be clearly assigned to a newly developed product or process that is technically feasible and is designated for captive use or commercialization. Capitalized development costs mainly relate to the development of new products and are amortized using the straight-line method over their estimated useful life of between 3 and 15 years.

The majority of other intangible assets are acquired customer relationships. These are amortized over their expected useful life. Their useful life is estimated on the basis of contractual data and experience and is generally between 2 and 11 years. Amortization takes account of both useful life and probability of continuance of the customer relationship in the form of a churn rate.

Property, plant and equipment

Property, plant and equipment are carried at acquisition or production cost and depreciated over their useful life. If there are indications of a possible impairment, an impairment test is conducted as outlined in Note 3.6 “Impairment test.”

The cost of acquisition includes expenses directly attributable to the acquisition. The cost of production of self-manufactured assets comprises all direct costs, plus the systematically allocable fixed and variable material costs and manufacturing overheads. Costs relating to obligations to dismantle or remove non-current assets at the end of their useful life are capitalized as acquisition or production costs at the time of acquisition or production.

Acquisition and production costs may also include transfers from gains and losses on cash flow hedges entered into to hedge foreign currency exposures in connection with the purchase of plants, which were recognized in the statement of comprehensive income until they were reclassified to property, plant and equipment.

Borrowing costs that can be allocated directly to the acquisition, construction or production of a qualifying asset are included in the cost of acquisition or production. A qualifying asset is an asset for which more than a year is required to get it ready for its intended use.

Government grants for the purchase or construction of property, plant and equipment reduce the cost of acquisition or production of such assets. They are reflected in the income statement over the useful life of the assets through lower depreciation.

Property, plant and equipment are depreciated using the straight-line method over the expected useful life of the assets.

Useful life of property, plant and equipment

in years	
Buildings	5–50
Plant and machinery	2–25
Other plant, office furniture and equipment	3–25

If major components of an asset have different useful lives, they are recognized and depreciated separately.

Spare parts and servicing equipment that meet the requirements for recognition as property, plant and equipment are recognized as such, rather than as inventories. Minor repairs and other maintenance work are expensed in the period in which they are incurred.

If there is a high probability that the project will be realized, costs incurred for planning and pre-engineering work for capital expenditure projects are capitalized. Depreciation is recognized in line with the useful life of the project.

Gains and losses from the disposal of property, plant and equipment are calculated as the difference between the net proceeds of sale and the carrying amount and recognized in other operating income or other operating expenses.

Impairment test

If there are indications of possible impairment, an impairment test is conducted on intangible assets, property plant and equipment in accordance with IAS 36 Impairment of Assets. Goodwill and other intangible assets with an indefinite useful life are tested for impairment at least once a year. The impairment test on such assets is generally conducted for a cash-generating unit (CGU), which is the smallest identifiable group of assets that generates independent cash flows, or for a group of CGUs.

The impairment test comprises comparing the recoverable amount of the CGU/group of CGUs with its carrying amount. The recoverable amount is determined as the higher of the fair value less costs of disposal and the value in use of the CGU/group of CGUs. An impairment loss is recognized if the recoverable amount of a CGU/group of CGUs is below its carrying amount. The impairment loss is reversed—except in the case of goodwill—if the reason for the original impairment charge no longer applies.

When testing goodwill for impairment, the recoverable value of goodwill is determined from the fair value less costs of disposal of the relevant segment. The fair value less costs of disposal is determined as the present value of future cash flows using a valuation model and on the basis of non-observable inputs (Level 3 of the fair value hierarchy). Future cash flows are derived from the current three-year mid-term plan. The mid-term planning is based on a mixture of experience and expectations of future market trends. The main economic data, such as growth in gross domestic product, the development of exchange rates, raw material and energy prices and the increase in wages and salaries used in the mid-term planning are derived from internal and external market expectations and are set centrally by Evonik. The specific growth rates for individual segments are derived from experience and future expectations; a terminal growth rate is also assumed.

The expected future cash flows are discounted using the weighted average cost of capital (WACC) after taxes. WACC is determined for each segment on the basis of a capital asset pricing model and is the weighted average cost of debt and equity. The cost of equity is determined from the risk-free interest rate and a risk premium. An identical thirty-year risk-free interest rate is used for all segments. The risk premium is derived by multiplying the beta factor by the market risk premium. The cost of debt comprises a risk-free interest rate plus a premium for the credit risk, taking into account the average tax rate.

The beta factor, the credit risk premium and the capital structure are obtained from the capital market by comparison with the values for the peer group for the segment.

Parameters used in impairment testing and allocation of goodwill by segment

	WACC after taxes (in %)		Terminal growth rate (in %)		Goodwill (in € million)	
	2016	2015	**2016**	2015	**Dec. 31, 2016**	Dec. 31, 2015
Nutrition & Care	6.12	7.19	1.50	1.50	1,082	1,023
Resource Efficiency	7.17	8.38	1.50	1.50	1,192	1,186
Performance Materials	8.09	8.83	1.50	1.50	495	492
Services	7.15	8.16	1.50	1.50	63	63

The carrying amounts of goodwill are allocated among the segments for the purpose of impairment testing. The goodwill allocated to the three chemical segments principally relates to earlier acquisitions of shares in Evonik Degussa GmbH (Evonik Degussa), Essen (Germany). In the segment reporting, it is assigned to "Corporate, consolidation." All other goodwill is recognized immediately in the segments.

For impairment testing of other intangible assets, and property, plant and equipment, the recoverable amount is normally determined by calculating the value in use of the CGU/group of CGUs.

Investments recognized at equity

Associates and joint ventures are generally recognized using the equity method if Evonik is able to exert a significant influence or exercises joint control.

Initially they are measured at cost of acquisition. The cost of acquisition also contains all ancillary acquisition costs directly attributable to the investment.

For initial measurement, the difference between the cost of acquisition and the investor's share in the investee's equity must be determined. This is then analyzed to see whether it contains hidden reserves or hidden liabilities. Any positive difference remaining after allocation of hidden reserves or liabilities is treated as goodwill and recognized in the carrying amount of the investment. Negative differences are included in income by increasing the carrying amount of the investment.

Starting from the cost of acquisition of the investment, in subsequent periods its carrying amount is increased or reduced by the investor's share in the investee's net income. Further adjustments to the carrying amount of the investment are necessary if the equity of the investment alters as a result of items contained in other comprehensive income. Subsequent measurement must take into account depreciation of the hidden reserves identified at the time of initial recognition, which must be deducted from the investor's share in the investee's net income. To avoid dual recognition, any dividends received must be deducted from the carrying amount.

If there are indications of a possible impairment, the investment must be tested for impairment, see Note 3.6 "Impairment test." There is no separate impairment test for the goodwill. Rather, the impairment test is performed for the entire carrying amount of the investment. Accordingly, impairment losses are not allocated to the goodwill included in the carrying amount of the investment and can thus be reversed in full in subsequent periods.

Inventories

Inventories are measured at the lower of cost and net realizable value. The historical cost of acquisition or production is the upper limit. The net realizable value corresponds to the selling price in the ordinary course of business less the production and selling expenses incurred prior to sale. The cost of inventories of similar structure or for similar applications is determined uniformly as an average or using the first-in first-out method. The cost of production of finished goods and work in progress comprises the cost of raw materials and supplies, directly attributable personnel expenses, other direct costs and fixed and variable overheads that can be systematically assigned to production (based on normal operating capacity). The cost of inventories may also contain gains and losses from cash flow hedges entered into to hedge the exchange rates or price of goods in connection with the procurement of raw materials and which were included in other comprehensive income in the statement of comprehensive income until they were reclassified to the inventories acquired.

Cash and cash equivalents

This item contains checks, cash and cash equivalents, and balances held at banks. It also contains highly liquid financial instruments with a maturity, calculated as of the date of purchase, of no more than three months, provided that they can be converted into cash and cash equivalents at any time and are only subject to negligible fluctuations in value. They are measured at fair value.

Provisions for pensions and other post-employment benefits

Provisions for pensions and other post-employment benefits are measured using the projected unit credit method for defined benefit obligations in accordance with IAS 19 Employee Benefits. This method takes account of future salary and pension increases as well as pension obligations and accrued entitlements as of the reporting date. In Germany, valuation is based on the biometric data in the 2005 G mortality tables published by Klaus Heubeck. For the companies in the UK, the S1PXA tables are used, and for the USA the RP-2014 mortality tables are used. Pension obligations in the remainder of the Group are determined using country-specific parameters and measurement principles.

Actuarial gains and losses relating to pension obligations and income from plan assets (apart from interest income) are derived from the difference between the expected pension obligations and the actual obligation calculated at year end, and from deviations between the expected and actual fair value of plan assets calculated at year end.

Changes that arise during a year as a result of actuarial gains/losses relating to pension obligations, income from plan assets (excluding interest income), changes in the asset ceiling (excluding interest cost) and income from claims to refunds (excluding interest income) are offset directly in the statement of other comprehensive income.

The benefit obligations at year end are compared with the fair value of the plan assets (funded status). Pension provisions are derived from this, taking the asset ceiling into account.

Defined contribution plans result in an expense in the period in which the contribution is made. Defined contribution plans exist for both company pension plans and state pension plans (statutory pension insurance).

Other provisions

Other provisions are liabilities of uncertain timing or amount. They are established to cover a present legal or constructive obligation to third parties based on past events that will probably lead to a cash outflow. If there are several obligations of the same type, the probability of a cash outflow is calculated for these obligations as an aggregate. It must also be possible to reliably estimate the level of the obligation.

Provisions are based on the probable settlement obligations and take account of future cost increases. Non-current provisions are discounted. Current provisions and the current portion of non-current provisions are not discounted. Provisions are adjusted over time to take account of new findings.

Reversals of provisions are recognized as income in the functional areas to which the original expense for the provision was charged.

Long-Term Incentive Plans are included in personnel-related provisions. These are performance-related remuneration plans for Evonik's executives and members of the Executive Board. The resulting obligations are determined as a cash compensation payment and expensed in accordance with IFRS 2 Share-based Payment.

Restructuring provisions are only established if constructive obligations exist on the basis of a formal, detailed plan and those affected have been given justifiable expectations that the restructuring will be carried out.

Provisions relating to legal risks are allocated to the various categories of provisions on the basis of their type. They contain appropriate expenses for, e.g. court and lawyers' fees, payments to plaintiffs and any payments for settlement or indemnity. The level of such provisions is based, among other factors, on the type of dispute or claim, status of the legal proceedings, the opinion of lawyers, experience of comparable cases and probability assumptions.

Deferred taxes, other income taxes

In compliance with IAS 12 Income Taxes, deferred tax assets and liabilities are established for temporary valuation and recognition differences between the assets and liabilities recognized in the balance sheets prepared for tax purposes and those prepared in accordance with IFRS. Tax-deductible loss carryforwards that will probably be utilized in the future are capitalized at the amount of the deferred tax asset, taking into account whether they can be carried forward for a limited or unlimited period. The recognition of deferred tax assets at companies with tax-deductible loss carryforwards is based, on the one hand, on current planning calculations, which are normally for a five-year period, and on the other hand, on the availability of sufficient temporary tax differences. Deferred tax assets are recognized where it is probable that future taxable income will be generated, which can cover these temporary differences. Where the realization of deferred tax assets is unlikely, they are written down.

Deferred tax assets and liabilities are netted if the company is permitted to net other income tax assets and liabilities and if the deferred tax assets and liabilities relate to income taxes in the same tax jurisdiction.

The tax rates used to calculate deferred taxes are those valid under current legislation or that have been announced as being applicable as of the date when the temporary differences will probably be settled. The overall tax rate used to calculate deferred taxes for companies in Germany is 30 percent. In addition to 15 percent German corporation tax, the tax rate includes a solidarity surcharge of 5.5 percent of the German corporation tax and average trade tax of around 14 percent. The tax rates used for foreign companies are their national tax rates. These vary between 10 percent (Hungary) and 40 percent (USA).

Other income taxes for the reporting period and previous periods are recognized on the basis of the expected payment or refund. They are calculated using the company-specific tax rates applicable on the reporting date. Uncertain tax assets and liabilities are recognized as soon as their probability of occurrence is more than 50 percent. Uncertain income tax positions are recognized on the basis of their most likely amount.

Financial instruments

Financial instruments comprise contractually agreed rights and obligations resulting in an inflow or outflow of financial assets or the issue of equity instruments. They are divided into derivative and non-derivative financial instruments and are recognized on the balance sheet as financial assets or financial liabilities or as trade accounts receivable or trade accounts payable.

Financial instruments are initially measured at fair value plus any directly attributable transaction costs. Transaction costs for financial instruments held at fair value through profit or loss are included directly in the income statement. To measure non-current financial instruments that do not bear interest at market rates, the expected future cash flows are discounted to the date of acquisition using the effective interest rate (present value). The effective interest rate takes account of all directly attributable fees that are by nature interest. Subsequent measurement is based on the classification of the financial instruments.

(a) Non-derivative financial instruments

Evonik classifies non-derivative financial instruments as financial assets in the categories loans and receivables or available-for-sale. They are initially recognized at the settlement date. Financial assets are derecognized when the contractual rights to receive payments lapse or are transferred and Evonik has transferred substantially all opportunities and risks associated with ownership. There were no instances where the Group sold financial assets and the assets were still reported in the financial statements on the basis of continuing involvement.

Non-derivative financial instruments that constitute financial liabilities are recognized at amortized cost. Financial liabilities are derecognized when the obligation has been settled or canceled, or has expired.

The categories used by the Group are outlined below:

Loans and receivables principally comprise trade accounts receivable and loans. The assets assigned to this category are valued at amortized cost using the effective interest rate method. If there are objective indications based on historical empirical values that it will not be possible to collect the full amounts due under the customary conditions, an impairment loss is recognized. This is measured as the difference between the carrying amount of the asset and the present value of the estimated future payments calculated using the original effective interest rate. Impairment losses are recognized in the income statement. If the original reason for the impairment loss no longer applies, it is reversed to income, but only up to the amortized cost.

Available-for-sale assets comprise equity instruments that are not consolidated or recognized at equity, and other securities. If no fair value is available for such assets or the fair value cannot be determined reliably, for example, in the case of equity instruments that are not listed on a stock exchange, the assets are recognized at amortized cost. Changes in the fair value are recognized in other comprehensive income, taking into account deferred taxes. Financial assets are examined for objective indications of impairment on every reporting date. A material or lasting reduction in the fair value to below the cost of acquisition is regarded as an indication of impairment. In the case of equities, a decline in the fair value of at least 20 percent compared with the cost of acquisition is regarded as material. In such cases, the corresponding losses are derecognized from other comprehensive income and recognized in the income statement. If the reason for the impairment loss no longer applies, the reversal is recognized in other comprehensive income. Only debt instruments that are allocated to this category are written back by up to the amount of the original impairment in the income statement. Impairment losses are not reversed if they apply to investments and other financial assets whose fair value cannot be reliably determined.

The category at amortized cost mainly refers to trade accounts payable and loans. The liabilities assigned to this category are valued at amortized cost using the effective interest rate method.

(b) Derivative financial instruments

Derivative financial instruments are used to hedge the risk of changes in exchange rates, the price of commodities and interest rates. Hedging instruments are recognized on the balance sheet either on a stand-alone basis or as a valuation unit with the corresponding hedged items (hedge accounting). Initial recognition is on the trading date. If no stock exchange or market price is available for the derivative from an active market, the fair value is determined using financial valuation methods. The market price of options is determined using established option pricing models. Commodity derivatives are valued with the aid of spot prices and forward rates while interest rate derivatives are valued by discounting future cash flows.

Stand-alone financial derivatives are assigned to the category at fair value through profit or loss and classified as held for trading. Financial instruments assigned to this category are recognized at fair value on each reporting date. Any gain or loss resulting from a change in their fair value is recognized in the income statement.

Both the hedging instrument and the hedged item have to meet specific criteria to qualify for hedge accounting. In particular, hedge accounting requires extensive documentation of the hedging relationship, together with evidence that the expected and actual effectiveness of the hedge is between 80 and 125 percent. A derivative no longer qualifies for hedge accounting if these conditions are not fulfilled. In the case of cash flow hedges, hedge accounting must also be halted if the forecast transaction no longer appears probable. In such cases, the amount recognized in other comprehensive income is reclassified to the income statement.

Depending on the type of hedge, hedging instruments and the associated hedged items for which hedge accounting is used, are valued as outlined below:

The purpose of fair value hedges is to hedge the fair value of assets or liabilities reflected on the balance sheet. Changes in the fair value of the hedging instrument as well as changes in the fair value of the hedged item are recognized in the income statement. If off-balance-sheet firm commitments are hedged, changes in the fair value of the firm commitment resulting from changes in the hedged risk give rise to recognition of an asset or a liability which affects income. In view of this method, changes in the value of the hedged item and the hedge cancel each other out in the income statement.

The purpose of cash flow hedges is to minimize the risk of volatility of future cash flows from a recognized asset or liability or a forecast transaction that is considered highly probable. The effective portion of changes in the fair value of a hedging instrument is recognized in other comprehensive income and the ineffective portion of the change in value is recognized in the income statement. Amounts recognized in other comprehensive income are reclassified to the income statement as soon as the hedged item has an impact on the income statement. In the case of interest rate hedges, such amounts are included in net interest income or expense, while in the case of sales hedges they are included in the corresponding sales revenues, and hedges on the procurement of goods are included directly in the cost of sales. If the hedged future transaction comprises a non-financial asset or a non-financial liability, the gain or loss previously recognized in other comprehensive income is included in the cost of acquisition of the asset or liability when it is initially recognized.

The purpose of a hedge of a net investment is to reduce the foreign currency risk involved in an investment in a company whose functional currency is not the euro. Such hedges are accounted for in the same way as cash flow hedges. Gains and losses recognized in other comprehensive income are reclassified to the income statement when the foreign subsidiary is divested or investment in it is reduced.

Leasing

A lease comprises an agreement that transfers the right to use an asset for a certain period in return for one or more payments. The Group is mainly party to operating leases as either lessor or lessee. The related income and expenses are recognized in the income statement in the period in which they are received or incurred.

Assets held for sale and the associated liabilities

Non-current assets are classified as held for sale if the corresponding carrying amount is to be realized principally through a sale transaction rather than through continued use. Such assets must be available for immediate sale in their present condition, on terms that are usual and customary for the sale of such assets, and sale must be highly probable. If the associated liabilities are to be sold with the asset as part of the transaction, these must also be presented separately.

The assets and liabilities must be measured in accordance with the relevant accounting standards immediately before initial classification as held for sale. They are subsequently valued at the lower of the carrying amount and fair value less costs to sell. Where the assets and liabilities do not fall within the scope of the measurement criteria set out in IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, subsequent revaluation is performed in accordance with the relevant accounting standards.

Unless they are classified as discontinued operations, the results of the valuation and the sale of the asset are still included in income from continuing operations.

Discontinued operations

A discontinued operation is either a major line of business or geographical area of the company that is to be sold or shut down on the basis of a single coordinated plan, either as a whole or in parts, or a subsidiary acquired with a view to resale.

The income from the operating activities and the measurement and divestment of discontinued operations is reported separately from the continuing operations on the income statement. Similarly, the cash flow from the operating activities of discontinued operations is reported separately from the continuing operations in the cash flow statement.

Determination of fair value

The fair value is the price that would be received for the sale of an asset or the transfer of a liability in an orderly transaction between market participants at the measurement date. It is therefore an exit price based on a hypothetical transaction on the reporting date. If there are several markets for the asset or liability, the principal market or, as a secondary criterion, the most advantageous market to which the reporting entity has access is used. Transaction costs are not included in fair value. They are accounted for as prescribed by the applicable accounting standard. The fair value of non-financial assets is determined as the best use from a market perspective; this may differ from current use of the asset. In the measurement of financial assets and liabilities, the credit default risk is taken into account.

Fair value measurement is based on a three-level hierarchy: Where available, the fair value is determined from the quoted prices for identical assets or liabilities in an active market without adjustment (Level 1). If such data are not available, measurement based on directly or indirectly observable inputs is used (Level 2). In all other cases, valuation methods that are not based on observable market data are used (Level 3). Where input factors from different levels are used, the level applicable for the lowest material input factor is determined and the overall fair value is assigned to this level.

Contingent liabilities, contingent receivables and other financial commitments

Contingent liabilities, except for those recognized in connection with a business combination, are possible or present obligations arising from past events where an outflow of resources is not improbable but which are not recognized on the balance sheet.

Contingent receivables are possible assets arising from past events, which cannot be recognized on the balance sheet, and whose existence will be confirmed by the occurrence or non-occurrence of one or more uncertain future events that are not fully under the company's control. A contingent receivable is indicated where an inflow resulting from its economic benefits is probable.

Other financial commitments result from non-onerous executory contracts, continuous obligations, statutory requirements and other commercial obligations that are not already included in the liabilities shown on the balance sheet or in contingent liabilities and that are of significance for an assessment of the company's financial position.

4. Discussion of assumptions and estimation uncertainties

The preparation of consolidated financial statements involves assumptions and estimates about the future. Evidently, the subsequent circumstances do not always match the estimates made. Adjustments to estimates are recognized in income as soon as better information is available. The estimates and assumptions that constitute a considerable risk that the carrying amounts of assets and liabilities may have to be adjusted within the next fiscal year are discussed below.

(a) Impairment testing of goodwill

Testing goodwill for impairment also involves assumptions and estimates regarding, for example, future cash flows, expected terminal growth rates and discount rates. The relevant assumptions may change, leading to impairment losses in future periods.

In the impairment test on goodwill in the Performance Materials segment, the amount by which the recoverable amount exceeded the carrying amount of the segment increased by €117 million to €236 million (2015: €119 million). The recoverable amount would correspond to the carrying amount of the segment if the weighted average cost of capital after taxes increased by 10 percent, or if there was a reduction of 8.5 percent in the net cash flow or of 66 percent in the terminal growth rate.

In the Nutrition & Care, Resource Efficiency and Services segments, a relative increase in the weighted average cost of capital after taxes of 10 percent or a reduction of 10 percent in the net cash flow or terminal growth rate would not result in an impairment loss.

(b) Impairment testing of deferred tax assets

Deferred tax assets may only be recognized if it is probable that sufficient taxable income will be available in the future. Deferred taxes are calculated on the basis of the tax rates applicable on the date when temporary differences are likely to be reversed. If these expectations are not met, an impairment loss must be recognized in income for the deferred tax assets.

(c) Uncertain income tax positions

Group companies are liable to pay income tax in many countries around the world. When evaluating global income tax assets and liabilities, there may be some uncertainty relating, in particular, to the interpretation of tax regulations. It cannot be ruled out that the fiscal authorities will take a different view on the correct interpretation of tax regulations. Changes in assumptions regarding the correct interpretation of tax regulations, for example, as a result of changes in legal decisions, are reflected in the recognition of uncertain income tax assets and liabilities for the corresponding fiscal year.

(d) Impairment of other assets

Estimates are made about the useful life, depreciation/amortization period and value of other intangible assets, property, plant and equipment, investments, and loans and receivables. These estimates are based on experience and planning data, which contain assumptions on business conditions, sector trends and the creditworthiness of customers.

If there is a considerable change in such assumptions or circumstances, the estimates have to be reviewed. This may result in impairment of the related assets.

(e) Valuation of provisions for pensions and other post-employment benefits

The valuation of provisions for pensions and other post-employment benefits is subject, among other things, to assumptions about discount rates, expected future salary and pension increases, the cost trend for healthcare, and mortality tables. The actual data may differ from these assumptions as a result of changes in economic or market conditions. Sensitivity depends on the interest rate as of December 31 of the respective fiscal year, which is used as the discount rate, see Note 7.8.

A reduction of 1 percentage point in the Group-wide discount rate, assuming other parameters remain unchanged, would increase the present value of the defined benefit obligation by €2,243 million (2015: €1,906 million). Conversely, increasing the discount rate by 1 percentage point, assuming other parameters do not change, would decrease the defined benefit obligation by €1,689 million (2015: €1,456 million).

A reduction of 1 percentage point in the assumed Group-wide salary increases would reduce the defined benefit obligation by €172 million (2015: €162 million). Conversely, assuming other parameters remain unchanged, a rise of 1 percentage point in the assumed Group-wide salary rises would increase the defined benefit obligation by €184 million (2015: €175 million).

A reduction of 1 percentage point in the assumed Group-wide pension increase, assuming other parameters remain unchanged, would reduce the defined benefit obligation by €888 million (2015: €841 million). Conversely, assuming other parameters remain unchanged, a rise of 1 percentage point in the assumed Group-wide pension rises would increase the defined benefit obligation by €1,062 million (2015: €999 million).

Assuming all other parameters remain unchanged, a reduction of 20 percent in mortality in the retirement phase would increase the defined benefit obligation by €858 million (2015: €762 million).

If the trend in healthcare costs were to increase by 1 percentage point, the accumulated healthcare benefit obligation would increase by €17 million (2015: €16 million). Conversely, a reduction of 1 percentage point in the cost trend would reduce the accumulated healthcare obligation by €14 million (2015: €14 million).

(f) Valuation of other provisions

Other provisions, especially provisions for recultivation and environmental protection, in connection with legal risks and for restructuring are naturally exposed to significant forecasting uncertainties regarding the level and timing of the obligation. The company has to make assumptions about the probability of occurrence of an obligation or future trends, such as value of the costs, on the basis of experience. Non-current provisions in particular are exposed to forecasting uncertainties. In addition, the level of non-current provisions depends to a large extent on the selection and development of the market-oriented discount rates. The Group uses different interest rates for different currencies and terms to maturity.

5. Changes in the Group

5.1 Scope of consolidation and list of shareholdings

Changes in the scope of consolidation

No. of companies	Germany	Other countries	Total
Evonik Industries AG and consolidated subsidiaries			
As of December 31, 2015	**39**	**99**	**138**
Acquisitions	–	1	1
Other companies consolidated for the first time	2	1	3
Divestments	–	–	–
Intragroup mergers	–2	–2	–4
Other companies deconsolidated	–1	–	–1
As of December 31, 2016	**38**	**99**	**137**
Joint operations			
As of December 31, 2015	**3**	**2**	**5**
As of December 31, 2016	**3**	**2**	**5**
Investments recognized at equity			
As of December 31, 2015	**3**	**8**	**11**
Acquisitions	–	1	1
Other companies included at equity for the first time	1	–	1
As of December 31, 2016	**4**	**9**	**13**
	45	**110**	**155**

Further information on acquisitions and divestments in 2016 can be found in Note 5.2.

The following list shows Evonik's shareholdings in accordance with Section 313 Paragraph 2 of the German Commercial Code (HGB).

The shareholdings have been calculated in accordance with Section 16 of the German Stock Corporation Act (AktG). Accordingly, the calculation includes shares held by the parent company, a subsidiary included in the consolidated financial statements or a person acting on behalf of these companies.

German subsidiaries that make use of the provisions of Sections 264 Paragraph 3 and 264b of the German Commercial Code (HGB) on exemption from disclosure of annual financial statements and the preparation of notes to their financial statements and a management report are indicated.

Consolidated subsidiaries

Name of company	Registered office		Shareholding in %
Consolidated subsidiaries			
Germany			
BK-Wolfgang-Wärme GmbH	Hanau		100.00
CyPlus GmbH	Hanau		100.00
Evonik Beteiligungs-GmbH	Frankfurt am Main	a	100.00
Evonik Catering Services GmbH	Marl	a	100.00
Evonik Creavis GmbH	Essen	a	100.00
Evonik Dahlenburg GmbH	Dahlenburg	a	100.00
Evonik Degussa GmbH	Essen		100.00
Evonik Functional Solutions GmbH	Essen	a	100.00
Evonik Goldschmidt Rewo GmbH	Essen		100.00
Evonik Gorapur GmbH	Wittenburg	a	100.00

Consolidated subsidiaries

Name of company	Registered office		Shareholding in %
Evonik Gorapur Verwaltungs-GmbH	Wittenburg		100.00
Evonik IP GmbH	Gründau	a	100.00
Evonik Nutrition & Care GmbH	Essen	a	100.00
Evonik Oil Additives GmbH	Essen		100.00
Evonik Performance Materials GmbH	Essen	a	100.00
Evonik Peroxygens Holding GmbH	Essen		100.00
Evonik Projekt-Beteiligungs-GmbH & Co. KG	Essen		99.00
Evonik Projekt-Beteiligung Verwaltungs-GmbH	Essen		100.00
Evonik Real Estate GmbH & Co. KG	Marl	a	100.00
Evonik Real Estate Verwaltungs-GmbH	Marl		100.00
Evonik Resource Efficiency GmbH	Essen	a	100.00
Evonik Risk and Insurance Services GmbH	Essen	a	100.00
Evonik Röhm GmbH	Essen		100.00
Evonik Specialty Chemicals GmbH	Essen	a	100.00
Evonik Technochemie GmbH	Essen	a	100.00
Evonik Technology & Infrastructure GmbH	Essen	a	100.00
Evonik Venture Capital GmbH	Hanau	a	100.00
Goldschmidt ETB GmbH	Essen	a	100.00
HD Ceracat GmbH	Frankfurt am Main		100.00
ILaS Integrierte Logistik & Service GmbH	Marl	a	100.00
KMV Vermögensverwaltungs-GmbH	Marl		100.00
Mönch-Kunststofftechnik GmbH	Bad König	a	100.00
RBV Verwaltungs-GmbH	Essen		100.00
RCIV Vermögensverwaltungs-GmbH	Essen		100.00
RÜTGERS Dienstleistungs-GmbH	Essen		100.00
RÜTGERS GmbH	Essen		100.00
Stockhausen Unterstützungseinrichtung GmbH	Krefeld		100.00
Westgas GmbH	Marl		100.00
Other countries			
Degussa International, Inc.	Wilmington (Delaware, USA)		100.00
DSL. Japan Co., Ltd.	Tokyo (Japan)		51.00
Egesil Kimya Sanayi ve Ticaret A.S.	Istanbul (Turkey)		51.00
Evonik Acrylics Africa (Pty) Ltd.	Johannesburg (South Africa)		51.00
Evonik Aerosil France S.A.R.L.	Salaise-sur-Sanne (France)		100.00
Evonik Africa (Pty) Ltd.	Midrand (South Africa)		100.00
Evonik Agroferm Zrt.	Kaba (Hungary)		100.00
Evonik Amalgamation Ltd.	Milton Keynes (UK)		100.00
Evonik Argentina S.A.	Buenos Aires (Argentina)		100.00
Evonik Australia Pty Ltd.	Mount Waverley (Australia)		100.00
Evonik Canada Inc.	Calgary (Canada)		100.00
Evonik Catalysts India Pvt. Ltd.	Dombivli (India)		100.00
Evonik CB LLC	Wilmington (Delaware, USA)		100.00
Evonik Chile S.A.	Santiago (Chile)		99.99
Evonik Colombia S.A.S.	Medellín (Colombia)		100.00
Evonik Corporation	Parsippany (New Jersey, USA)		100.00

Consolidated subsidiaries

Name of company	Registered office	Shareholding in %
Evonik Cyro Canada Inc.	Burlington (Canada)	100.00
Evonik Cyro LLC	Wilmington (Delaware, USA)	100.00
Evonik Degussa Africa (Pty) Ltd.	Midrand (South Africa)	100.00
Evonik Degussa Antwerpen N.V.	Antwerp (Belgium)	100.00
Evonik Degussa Brasil Ltda.	São Paulo (Brazil)	100.00
Evonik Degussa Carbons, Inc.	Wilmington (Delaware, USA)	100.00
Evonik Degussa (China) Co., Ltd.	Beijing (China)	100.00
Evonik Dutch Holding B.V.	Amsterdam (Netherlands)	100.00
Evonik España y Portugal, S.A.U.	Granollers (Spain)	100.00
Evonik Fermas s.r.o.	Slovenská L'upča (Slovakia)	100.00
Evonik Fibres GmbH	Schörfling (Austria)	100.00
Evonik Finance B.V.	Amsterdam (Netherlands)	100.00
Evonik Foams Inc.	Wilmington (Delaware, USA)	100.00
Evonik Forhouse Optical Polymers Corporation	Taichung (Taiwan)	51.00
Evonik France S.A.S.	Ham (France)	100.00
Evonik Goldschmidt UK Ltd.	Milton Keynes (UK)	100.00
Evonik Gulf FZE	Dubai (United Arab Emirates)	100.00
Evonik Hong Kong Ltd.	Hong Kong (Hong Kong)	100.00
Evonik India Pvt. Ltd.	Mumbai (India)	100.00
Evonik Industries de Mexico, S.A. de C.V.	Mexico City (Mexico)	100.00
Evonik International AG	Zurich (Switzerland)	100.00
Evonik International Costa Rica, S.A.	Santa Ana (Costa Rica)	100.00
Evonik International Holding B.V.	Amsterdam (Netherlands)	100.00
Evonik Iran AG	Teheran (Iran)	100.00
Evonik Italia S.r.l.	Pandino (Italy)	100.00
Evonik Japan Co., Ltd.	Tokyo (Japan)	100.00
Evonik Jayhawk Fine Chemicals Corporation	Carson City (Nevada, USA)	100.00
Evonik Korea Ltd.	Seoul (South Korea)	100.00
Evonik Limited Egypt	Cairo (Egypt)	100.00
Evonik Malaysia Sdn. Bhd.	Kuala Lumpur (Malaysia)	100.00
Evonik MedAvox S.p.A. (in liquidation)	Milan (Italy)	100.00
Evonik Membrane Extraction Technology Limited	Milton Keynes (UK)	100.00
Evonik Methionine SEA Pte. Ltd.	Singapore (Singapore)	100.00
Evonik Metilatos S.A.	Rosario (Argentina)	100.00
Evonik Mexico, S.A. de C.V.	Mexico City (Mexico)	100.00
Evonik Oil Additives Asia Pacific Pte. Ltd.	Singapore (Singapore)	100.00
Evonik Oil Additives Canada Inc.	Morrisburg (Canada)	100.00
Evonik Oil Additives S.A.S.	Lauterbourg (France)	100.00
Evonik Oil Additives USA, Inc.	Horsham (Pennsylvania, USA)	100.00
Evonik Oxeno Antwerpen N.V.	Antwerp (Belgium)	100.00
Evonik Para-Chemie GmbH	Gramatneusiedl (Austria)	99.00
Evonik Pension Scheme Trustee Limited	Milton Keynes (UK)	100.00
Evonik Peroxid GmbH	Weissenstein (Austria)	100.00
Evonik Peroxide Africa (Pty) Ltd.	Umbogintwini (South Africa)	100.00
Evonik Peroxide Holding B.V.	Amsterdam (Netherlands)	100.00
Evonik Peroxide Ltd.	Morrinsville (New Zealand)	100.00

Consolidated subsidiaries

Name of company	Registered office	Shareholding in %
Evonik Peroxide Netherlands B.V.	Amsterdam (Netherlands)	100.00
Evonik Re S.A.	Luxembourg (Luxembourg)	100.00
Evonik Rexim (Nanning) Pharmaceutical Co., Ltd.	Nanning (China)	100.00
Evonik Rexim S.A.S.	Ham (France)	100.00
Evonik (SEA) Pte. Ltd.	Singapore (Singapore)	100.00
Evonik Servicios, S.A. de C.V.	Mexico City (Mexico)	100.00
Evonik (Shanghai) Investment Management Co., Ltd.	Shanghai (China)	100.00
Evonik Silquimica, S.A.U.	Zubillaga-Lantaron (Spain)	100.00
Evonik Speciality Organics Ltd.	Milton Keynes (UK)	100.00
Evonik Specialty Chemicals (Jilin) Co., Ltd.	Jilin (China)	100.00
Evonik Specialty Chemicals (Shanghai) Co., Ltd.	Shanghai (China)	100.00
Evonik Taiwan Ltd.	Taipei (Taiwan)	100.00
Evonik Tasnee Marketing LLC	Riyadh (Saudi Arabia)	75.00
Evonik Thai Aerosil Co., Ltd.	Bangkok (Thailand)	100.00
Evonik (Thailand) Ltd.	Bangkok (Thailand)	100.00
Evonik Tianda (Liaoyang) Chemical Additive Co., Ltd.	Liaoyang (China)	97.04
Evonik Ticaret Ltd. Sirketi	Tuzla/Istanbul (Turkey)	100.00
Evonik Trustee Limited	Milton Keynes (UK)	100.00
Evonik UK Holdings Ltd.	Milton Keynes (UK)	100.00
Evonik United Silica Industrial Ltd.	Taoyuan Hsien (Taiwan)	100.00
Evonik United Silica (Siam) Ltd.	Rayong (Thailand)	70.00
Evonik Vietnam Limited Liability Company	Ho-Chi-Minh City (Vietnam)	100.00
Evonik Wellink Silica (Nanping) Co., Ltd.	Nanping (China)	60.00
Insilco Ltd.	Gajraula (India)	73.11
JIDA Evonik High Performance Polymers (Changchun) Co., Ltd.	Changchun (China)	84.04
Laporte Industries Ltd.	Milton Keynes (UK)	100.00
Laporte Nederland (Holding) B.V.	Amsterdam (Netherlands)	100.00
MedPalett AS	Sandnes (Norway)	100.00
Nilok Chemicals Inc. (in liquidation)	Parsippany (New Jersey, USA)	100.00
Nippon Aerosil Co., Ltd.	Tokyo (Japan)	80.00
OOO DESTEK	Podolsk (Russian Federation)	65.25
OOO Evonik Chimia	Moscow (Russian Federation)	100.00
PT. Evonik Indonesia	Cikarang Bekasi (Indonesia)	99.98
PT. Evonik Sumi Asih	Bekasi Timur (Indonesia)	75.00
Roha B.V.	Tilburg (Netherlands)	100.00
RÜTGERS Organics Corporation	State College (Pennsylvania, USA)	100.00
Silbond Corporation	Weston (Michigan, USA)	100.00
SKC Evonik Peroxide Korea Co., Ltd.	Ulsan (South Korea)	55.00
Stockhausen Nederland B.V.	Amsterdam (Netherlands)	100.00

[a] Utilizes the exemptions permitted under Sections 264 Paragraph 3 and 264b of the German Commercial Code (HGB).

Joint operations recognized on a pro rata basis

Name of company	Registered office		Shareholding in %
Joint operations			
Germany			
Neolyse Ibbenbüren GmbH	Ibbenbüren		50.00
StoHaas Marl GmbH	Marl		50.00
StoHaas Monomer GmbH & Co. KG	Marl		50.00
Other countries			
ROH Delaware LLC	Deer Park (Texas, USA)		50.00
ROH Delaware LP	Deer Park (Texas, USA)		50.00

At the joint operations there is no difference between the shareholding and proportion of the voting rights.

The purpose of Neolyse Ibbenbüren GmbH is the joint production of potassium hydroxide solution and chlorine for use by Evonik and its partner Akzo Nobel Industrial Chemicals GmbH.

The purpose of StoHaas Monomer GmbH & Co. KG and its wholly owned subsidiaries StoHaas Marl GmbH, ROH Delaware LLC and ROH Delaware LP is joint production of acrylic acid (CAA) for use by Evonik and its partner Dow Chemicals Inc. (formerly ROHM AND HAAS TEXAS, INC.).

Companies recognized at equity

Name of company	Registered office		Shareholding in %
Joint ventures			
Other countries			
CyPlus Idesa, S.A.P.I. de C.V.	Mexico City (Mexico)		50.00
Daicel-Evonik Ltd.	Tokyo (Japan)		50.00
Evonik Headwaters LLP	Milton Keynes (UK)		50.00
Evonik Lanxing (Rizhao) Chemical Industrial Co., Ltd.	Rizhao (China)		50.00
Evonik Treibacher GmbH	Treibach/Althofen (Austria)		50.00
LiteCon GmbH	Hönigsberg/Mürzzuschlag (Austria)		49.00
Rusferm Limited	Nicosia (Cyprus)		49.00
Saudi Acrylic Polymers Company, Ltd.	Jubail (Saudi Arabia)		25.00
Associates			
Germany			
ARG mbH & Co. KG	Duisburg	[a]	19.93
TÜV NORD InfraChem GmbH & Co. KG	Marl		49.00
TÜV NORD InfraChem Verwaltungsgesellschaft mbH	Marl		49.00
Vestaro GmbH	Munich		49.00
Other countries			
ABCR Laboratorios, S.L.	Forcarei (Spain)		50.00

[a] Evonik is able to exercise a material influence under contractual agreements.

Companies recognized at amortized cost

Name of company	Registered office		Shareholding in %
Non-consolidated subsidiaries			
Germany			
PKU Pulverkautschuk Union GmbH (in liquidation)	Marl		100.00
Studiengesellschaft Kohle mbH	Mülheim		84.18
Other countries			
EGL Ltd.	Milton Keynes (UK)		100.00
Evonik Advanced Botanicals S.A.S.	Évry (France)		100.00
Evonik Guatemala, S.A.	Guatemala City (Guatemala)		100.00
Laporte Chemicals Ltd.	Milton Keynes (UK)		100.00
LLC "Evonik Ukraine"	Kiev (Ukraine)		100.00
Joint ventures			
Germany			
dev.log GmbH	Niederkassel		50.00
StoHaas Management GmbH	Marl		50.00
Other countries			
Idevo Servicios, S.A. de C.V.	Mexico City (Mexico)		50.00
RSC Evonik Sweeteners Co., Ltd.	Bangkok (Thailand)		50.00
Associates			
Germany			
ARG Verwaltungs GmbH	Duisburg		20.00
Industriepark Münchsmünster GmbH & Co. KG	Münchsmünster		30.00
Industriepark Münchsmünster Verwaltungsgesellschaft mit beschränkter Haftung	Münchsmünster		38.00
Umschlag Terminal Marl GmbH & Co. KG	Marl		50.00
Umschlag Terminal Marl Verwaltungs-GmbH	Marl		50.00
Vivawest GmbH	Essen	[a]	25.00

[a] Based on the nature of the plan assets, these shares were measured in accordance with IAS 19.

Evonik holds more than 5 percent of the voting rights in the following company, which is defined as a large stock corporation in accordance with Section 267 Paragraph 3 of the German Commercial Code (HGB) (disclosure pursuant to Section 313 Paragraph 2 No.5 German Commercial Code (HGB)):

Borussia Dortmund GmbH & Co. KGaA, Dortmund (Germany) (shareholding: 14.78 percent; fiscal year 2015/2016: income after taxes: €28.3 million; equity: €347 million).

5.2 Acquisitions and divestments

This section provides a more detailed overview of the acquisitions made in the reporting period. There were no divestments in the reporting period.

On March 3, 2016 Evonik acquired all shares in MedPalett AS (MedPalett), Sandnes (Norway) from Biolink Group AS, Sandnes (Norway). MedPalett specializes in food ingredients containing anthocyanins, which are known for their natural antioxidant properties. Numerous international studies indicate broad health-promoting properties, including the prevention of cardiovascular disease. The aim of this acquisition is to expand the portfolio of the Health Care Business Line in the area of advanced food ingredients.

On July 4, 2016 Evonik acquired the probiotics business of NOREL S.A. (NOREL), Madrid (Spain), one of the world's leading suppliers of feed additives, through an asset deal. The acquisition comprises the existing probiotics product portfolio and the production site in León (Spain). Probiotics play a key role for Evonik as natural alternatives to antibiotics and antibiotic growth promoters. This acquisition positions Evonik as an innovative solution provider in the field of antibiotic-free animal nutrition.

Effective August 31, 2016, Evonik acquired the business of biotech company Transferra Nanosciences Inc., (Transferra), Burnaby (Canada) through an asset deal. Transferra is a contract development and manufacturing organization that uses its expertise in liposomal drug delivery systems to provide both products and services to biotech companies for the development of pharmaceuticals. This acquisition enables Evonik to extend the portfolio of its Health Care Business Line in the area of parenteral drug formulation.

The acquisitions have been integrated into the Nutrition & Care segment. Their combined impact on the balance sheet as of their acquisition dates was as follows:

Impact of acquisitions on the balance sheet

in € million	Fair value recognized
Non-current assets	45
Current assets	9
thereof receivables	2
thereof cash and cash equivalents	1
Non-current liabilities	–5
Current liabilities	–6
Net assets	**43**
Goodwill	54
Purchase prices pursuant to IFRS 3	**97**

The purchase prices were settled out of cash and cash equivalents. Transaction costs of €1 million relating to the three acquisitions are included in other operating expenses. The goodwill mainly comprises the expected future benefits of assets that were not individually identifiable or for which recognition is not permitted, for example, anticipated synergies and the workforce. The goodwill in connection with the asset deals is €18 million and is expected to be tax-deductible.

The contributions made by the acquisitions to sales and earnings were not material relative to the Nutrition & Care segment as a whole, either since the date of acquisition or on a pro forma basis in the period since January 1, 2016.

5.3 Assets held for sale and discontinued operations

Assets held for sale and the associated liabilities have to be stated separately from other assets and liabilities on the balance sheet. The amounts recognized for these assets and liabilities in the previous year do not have to be restated.

Businesses whose assets and liabilities have been classified as held for sale may also meet the criteria for classification as discontinued operations, especially if a separate, significant business area is to be disposed of. The income and expenses of such discontinued operations have to be stated separately from those of continuing operations in the income statement. The cash flows also have to be stated separately. The prior-period figures have to be restated in the income statement and the cash flow statement.

Impact of the discontinued operations on the income statement

	Operating income after taxes		Divestment gains/losses after taxes		Income after taxes, discontinued operations	
in € million	**2016**	2015	**2016**	2015	**2016**	2015
Lithium-ion business	–	–8	–	–7	–	–15
Former Energy Business Area	–	–	101	–2	101	–2
Other discontinued operations	–	–	–5	–	–5	–
	–	**–8**	**96**	**–9**	**96**	**–17**

The divestment gains/losses reported for 2016 mainly comprised income from the partial reversal of a provision for the former Energy Business Area, which was sold in 2011. No tax was incurred in connection with the divestment gains/losses.

As of December 31, 2016, there were no assets or liabilities classified as held for sale on the balance sheet.

6. Notes to the income statement

6.1 Sales

The sales of €12,732 million (2015: €13,507 million) principally comprise revenues from the sale of goods and services.

6.2 Function costs

Function costs are derived from cost accounting data. IFRS accounting policies are the central recognition principles used at Evonik. Therefore, implicit costs may not be allocated to the functional areas. Function costs are determined after internal cross-charging to ensure that they take account of transactions between the functional areas.

Evonik divides function costs into the cost of sales, selling expenses, research and development expenses and general administrative expenses.

Operating expenses that cannot be allocated to the functional areas are recognized as other operating expenses.

6.3 Other operating income

Other operating income

in € million	2016	2015
Income from restructuring measures	76	43
thereof income from the reversal of provisions	73	37
thereof income from the reversal of impairment losses	2	5
Income from the reversal of provisions	65	44
Income from non-core operations	56	55
Income from the reversal of impairment losses	25	12
Income from the disposal of assets	17	153
Net income from currency translation of operating monetary assets and liabilities	5	35
Other income	77	103
	321	**445**
thereof adjustments	137	216

The income from restructuring measures mainly comprises income in connection with the optimization of administrative structures, and income relating to the optimization of the product portfolio in the Performance Materials segment. This item also includes income that by nature would otherwise be allocated to other line items in other operating income.

The income from the reversal of provisions amounting to €65 million (2015: €44 million) was mainly attributable to renegotiation of an agreement for the supply of raw materials, as a result of which the original risk provisioning is no longer necessary.

The income from non-core operations contains income from occasional, unplanned business activities that are not intended to be permanent operations.

The income of €17 million (2015: €7 million) from the disposal of assets resulted from the disposal of property, plant and equipment. In 2015, income of €146 million came from the sale of investments and business operations.

Net income from the currency translation of operating monetary assets and liabilities resulted from the exchange rate risk relating to trade accounts receivable and payable in foreign currencies. The counter item to this is the associated hedging result in other operating expenses, see Note 10.2, Notes on financial risk management.

Other income includes insurance refunds and premiums, research subsidies, commission income, income from the sale of scrap and rental income.

In all, other operating income contains a total of €27 million (2015: €17 million) from the reversal of impairment losses. This comprises €22 million (2015: €10 million) in accordance with IAS 39 Financial Instruments: Recognition and Measurement relating to trade accounts receivable.

The income from the reversal of impairment losses in accordance with IAS 36 Impairment of Assets totaling €5 million (2015: €7 million) relates to the following segments:

Income from the reversal of impairment losses by segment

in € million	2016	2015
Resource Efficiency	1	6
Performance Materials	4	–
Other operations	–	1
	5	**7**

Evonik refers to the special items that are factored out when calculating the operational performance indicators adjusted EBITDA and adjusted EBIT as adjustments. These adjustments are included in other operating income and expenses in the income statement. The adjustments recognized in other operating income relate to the following functional areas:

Adjustments included in other operating income

in € million	2016	2015
Production-related	50	11
Sales-related	8	–
R&D-related	6	–
Administration-related	59	35
Other	14	170
	137	**216**

6.4 Other operating expenses

Other operating expenses

in € million	2016	2015
Expenses for restructuring measures	75	108
thereof impairment losses	14	6
Net expenses for operational currency hedging	39	71
Impairment losses	30	69
Expenses for recultivation and environmental protection	14	10
Losses on the disposal of assets	12	9
Expenses relating to the REACH Regulation	10	8
Other expense	363	328
	543	**603**
thereof adjustments	246	290

The expenses for restructuring measures mainly contain expenses for optimization of the product portfolio in the Performance Materials segment and in connection with the optimization of administrative structures. This item also includes expenses that by nature would otherwise be allocated to other line items in other operating expenses.

Net expenses for operational currency hedging resulted principally from the use of currency derivatives for portfolio hedging of trade accounts receivable and payable in foreign currencies. Further, this item contains the forward components of derivatives used to hedge forecast sales as these components are excluded from the hedge accounting relationship, see Note 10.2, Notes on financial risk management.

The losses on the disposal of assets of €12 million (2015: €9 million) result from the disposal of property, plant and equipment.

The other expense mainly relates to the acquisition of the Air Products specialty additives business and preparations for its integration, the restructuring of logistics activities, and the waiver of receivables. This item also includes expenses for outsourcing, non-core businesses, commission payments, other taxes, and legal and consultancy fees.

Overall, other operating income contains impairment losses of €44 million (2015: €75 million). The impairment losses on financial instruments, which are calculated in accordance with IAS 39 Financial Instruments: Recognition and Measurement, totaled €17 million (2015: €12 million), and relate to trade accounts receivable. In 2015, other operating income also included impairments of €3 million on assets classified as held for sale, calculated in accordance with IFRS 5.

Impairment losses determined in accordance with IAS 36 Impairment of Assets in response to indications of a possible impairment were divided among the segments as shown in the table below:

Impairment losses by segment

in € million	2016	2015
Performance Materials	24	43
Resource Efficiency	2	11
Nutrition & Care	–	5
Services	–	1
Other operations	1	–
	27	**60**

The impairment losses, which are mainly recognized for the Performance Materials segment, relate to both production facilities and intangible assets. They result principally from shutdowns and the early termination of a project. Since the assets do not currently have any benefit, their recoverable amount was not calculated. In addition, one production plant was written down to zero as no positive value in use could be determined. The discount rate used to calculated the value in use was the weighted cost of capital of the segment, see Note 3.6.

The adjustments recognized in other operating expenses relate to the following functional areas:

Adjustments included in other operating expenses

in € million	2016	2015
Production-related	106	129
Sales-related	6	12
R&D-related	–	7
Administration-related	85	67
Other	49	75
	246	**290**

6.5 Result from investments recognized at equity

Result from investments recognized at equity

in € million	2016	2015
Income from measurement at equity	8	11
Expenses for measurement at equity	–47	–26
	–39	**–15**
thereof adjustments	–41	–14

The expenses for measurement at equity in 2016 include an impairment loss of €41 million on an equity investment in the Nutrition & Care segment, which is contained in adjustments. The expenses for measurement at equity in 2015 also include an impairment loss on an equity investment in the Nutrition & Care segment amounting to €14 million.

6.6 Financial result

Financial result

in € million	2016	2015
Income from securities and loans	5	4
Interest and similar income from derivatives	10	8
Other interest-type income	65	34
Interest income	**80**	**46**
Interest expense on financial liabilities	–44	–47
Interest and similar expenses for derivatives	–41	–29
Interest expense for other provisions	–33	–23
Net interest expense for pensions	–90	–96
Other interest-type expense	–21	–50
Interest expense	**–229**	**–245**
Result from currency translation of financing-related assets and liabilities	41	–22
Income from financing-related currency hedging	–68	16
Miscellaneous financial income and expenses	2	–18
Other financial income/expense	**–25**	**–24**
	–174	**–223**

The other interest-type income contains €59 million (2015: €27 million) relating to tax reductions.

The present negative interest on short-term deposits resulted in negative interest income of €2 million (2015: none), which is included in interest expense on financial liabilities.

Interest and similar expenses for derivatives and the corresponding income item mainly comprise accrued and realized interest from cross-currency interest rate swaps used for currency hedging of non-current intragroup loans.

The result from currency translation of financing-related assets and liabilities included in other financial income mainly results from the exchange rate risk of current intragroup financing transactions (cash pooling) denominated in foreign currencies and from cash and cash equivalents in foreign currencies as these balance-sheet items are not included in hedge accounting. The impact of the related currency hedges is recognized in income from financing-related currency hedging. This line also includes the ineffective portion and forward components of financial derivatives designated to hedge non-current intragroup foreign currency loans. Further, it includes the changes in the time value of currency options used to hedge forecast purchase prices as the time value of these options is excluded from the hedge accounting relationship, see Note 10.2, Notes on financial risk management.

In connection with the acquisition of the specialty additives business (Performance Materials Division) of Air Products and Chemicals, Inc. (Air Products), Allentown (Pennsylvania, USA), expenses of €5 million were incurred for the provision of bridge financing that was not used. These expenses are included in other interest-type expense. Further, expenses of €24 million were incurred for currency hedging and ancillary financing costs. These are included in other financial income/expense. Expenses of €1 million for currency hedging of the planned acquisition of the silica business of J. M. Huber Corporation (Huber), Atlanta (Georgia, USA) are also included in other financial income/expense.

Borrowing costs of €3 million (2015: €5 million) that could be allocated directly to the acquisition, construction or production of qualifying assets were capitalized. The average underlying cost of financing was 2.7 percent (2015: 3.1 percent).

6.7 Income taxes

Income taxes shown in the income statement

in € million	2016	2015
Other income taxes	**310**	**508**
thereof relating to other periods	9	21
Deferred taxes	**52**	**−86**
thereof relating to other periods	−19	−24
thereof relating to temporary differences	48	−85
	362	**422**

The tax reconciliation shows the development of expected income taxes relative to the effective income taxes stated in the income statement. As in the previous year, the expected income taxes are based on an overall tax rate of 30 percent, comprising German corporation tax of 15 percent, a solidarity surcharge of 5.5 percent and an average trade tax rate of around 14 percent. The effective income taxes include other income taxes and deferred taxes.

Tax reconciliation

in € million	2016	2015
Income before income taxes, continuing operations	**1,124**	**1,441**
Expected income taxes	337	432
Variances due to differences in the assessment base for trade tax	−3	5
Deviation from the expected tax rate	16	17
Changes in the valuation of deferred taxes	4	−9
Losses not affecting deferred taxes and the use of loss carryforwards	39	24
Changes in tax rates and tax legislation	–	1
Non-deductible expenses	29	35
Interest ceiling	–	–
Tax-free income	−56	−88
Result from investments recognized at equity	–	4
Other	−4	1
Effective income taxes (current income taxes and deferred taxes)	**362**	**422**
Effective income tax rate in %	32.2	29.3

The impairment losses on deferred taxes previously recognized totals €8 million, and relates entirely to temporary differences. This is countered by reversals of €3 million, mainly in connection with loss carryforwards. “Other” contains other income taxes and deferred taxes relating to different periods.

6.8 Earnings per share

Earnings per share as shown in the income statement are calculated by dividing net income by the weighted average number of shares issued, i. e. 466,000,000 shares. Net income comprises the total earnings for the year less non-controlling interests, including the earnings of discontinued operations. Earnings per share could be diluted by potential ordinary shares. Since there were no potential ordinary shares in either 2016 or 2015, diluted earnings per share are identical to basic earnings per share.

Earnings per share

in € million	2016	2015
Income after taxes, continuing operations	762	1,019
Income after taxes, discontinued operations	96	−17
Less income after taxes attributable to non-controlling interests	−14	−11
Income after taxes attributable to shareholders of Evonik Industries AG (net income)	**844**	**991**
Earnings per share in € (basic and diluted)		
from continuing operations	1.63	2.19
from discontinued operations	0.21	−0.04
less earnings per share attributable to non-controlling interests	−0.03	−0.02
Earnings per share in € (basic and diluted) attributable to shareholders of Evonik Industries AG	**1.81**	**2.13**

7. Notes to the balance sheet

7.1 Intangible assets

Change in intangible assets

in € million	Goodwill	Franchises, trademarks, and licenses	Capitalized development costs	Other intangible assets	Total
Cost of acquisition / production					
As of January 1, 2015	**2,792**	**1,693**	**165**	**497**	**5,147**
Currency translation	64	7	–	2	73
Additions from business combinations	5	1	–	16	22
Other additions	–	10	–	15	25
Disposal	–	–54	–	–	–54
Reclassification	–	9	–	–3	6
As of December 31, 2015	**2,861**	**1,666**	**165**	**527**	**5,219**
Currency translation	14	3	–	1	18
Additions from business combinations	54	37	–	2	93
Other additions	–	53	–	22	75
Disposal	–	–29	–	–	–29
Reclassification	–	14	–	–9	5
As of December 31, 2016	**2,929**	**1,744**	**165**	**543**	**5,381**
Amortization and impairment losses					
As of January 1, 2015	**97**	**1,348**	**149**	**453**	**2,047**
Currency translation	–	5	–	1	6
Additions from business combinations	–	–	–	–	–
Amortization	–	33	1	5	39
Impairment losses	–	2	12	–	14
Reversals of impairment losses	–	–1	–	–	–1
Disposal	–	–53	–	–1	–54
Reclassification	–	–4	–	4	–
As of December 31, 2015	**97**	**1,330**	**162**	**462**	**2,051**
Currency translation	–	2	–	–	2
Additions from business combinations	–	–	–	–	–
Amortization	–	37	–	5	42
Impairment losses	–	5	–	2	7
Reversals of impairment losses	–	–	–	–	–
Disposal	–	–33	–	–	–33
Reclassification	–	–	–	–	–
As of December 31, 2016	**97**	**1,341**	**162**	**469**	**2,069**
Carrying amounts as of December 31, 2015	**2,764**	**336**	**3**	**65**	**3,168**
Carrying amounts as of December 31, 2016	**2,832**	**403**	**3**	**74**	**3,312**

Franchises, trademarks and licenses include trademarks with an indefinite useful life totaling €203 million (2015: €203 million).

As in the previous year, on the reporting date there were no intangible assets to which title was restricted and no commitments to purchase intangible assets.

7.2 Property, plant and equipment

Change in property, plant and equipment

in € million	Land, land rights and buildings	Plant and machinery	Other plant, office furniture and equipment	Advance payments and construction in progress	Total
Cost of acquisition/production					
As of January 1, 2015	**3,156**	**11,786**	**1,025**	**798**	**16,765**
Currency translation	69	265	7	−8	333
Additions from business combinations	22	13	–	1	36
Other additions	52	271	44	485	852
Disposal	−26	−185	−44	−2	−257
Reclassification	101	546	15	−663	−1
As of December 31, 2015	**3,374**	**12,696**	**1,047**	**611**	**17,728**
Currency translation	20	121	5	12	158
Additions from business combinations	3	3	–	–	6
Other additions	43	189	50	603	885
Disposal	−21	−142	−51	−1	−215
Reclassification	52	318	13	−383	–
As of December 31, 2016	**3,471**	**13,185**	**1,064**	**842**	**18,562**
Deprecation and impairment losses					
As of January 1, 2015	**1,563**	**8,840**	**820**	**27**	**11,250**
Currency translation	28	176	5	–	209
Additions from business combinations	–	–	–	–	–
Depreciation	77	516	68	–	661
Impairment losses	1	33	–	19	53
Reversals of impairment losses	–	−6	–	–	−6
Disposal	−20	−187	−42	–	−249
Reclassification	−9	24	−10	−3	2
As of December 31, 2015	**1,640**	**9,396**	**841**	**43**	**11,920**
Currency translation	10	76	3	–	89
Additions from business combinations	–	–	–	–	–
Depreciation	78	518	69	–	665
Impairment losses	8	20	2	7	37
Reversals of impairment losses	–	−5	–	–	−5
Disposal	−9	−126	−50	–	−185
Reclassification	4	−3	−1	–	–
As of December 31, 2016	**1,731**	**9,876**	**864**	**50**	**12,521**
Carrying amounts as of December 31, 2015	**1,734**	**3,300**	**206**	**568**	**5,808**
Carrying amounts as of December 31, 2016	**1,740**	**3,309**	**200**	**792**	**6,041**

The Group had commitments of €162 million (2015: €159 million) to purchase property, plant and equipment.

As a lessor, Evonik mainly leases out land under operating leases. The nominal values of expected future minimum lease payments for these assets over the non-cancelable term of the lease are due as follows:

Maturity structure of future minimum lease payments (lessor; operating leases)

in € million	2016	2015
Due within 1 year	8	9
Due in more than 1 and up to 5 years	24	23
Due in more than 5 years	156	152
	188	**184**

7.3 Investments recognized at equity

This item comprises associates and joint ventures recognized using the equity method, see Note 5.1.

Investments recognized at equity

in € million	Dec. 31, 2016	Dec. 31, 2015
Carrying amount of individually non-material associates	8	7
Carrying amount of individually non-material joint ventures	35	46
	43	**53**

The condensed financial data for the investments recognized at equity which are classified individually as non-material for Evonik, based on Evonik's interest, are as follows:

Condensed financial data for individually non-material investments recognized at equity

	Associates		Joint ventures	
in € million	2016	2015	2016	2015
Carrying amount as of December 31	8	7	35	46
Income after taxes, continuing operations	4	9	–43	–25
Other comprehensive income after taxes	–	–	–1	–
Total comprehensive income	**4**	**9**	**–44**	**–25**

In addition, in 2015 the result from investments recognized at equity included income of €1 million in connection with the sale in the second quarter of the shares in Vivawest.

For information on contingent liabilities to associates and joint ventures, see Note 10.3.

7.4 Financial assets

Financial assets

	Dec. 31, 2016		Dec. 31, 2015	
in € million	Total	thereof non-current	Total	thereof non-current
Other investments	110	110	74	74
Loans	72	69	29	24
Securities and similar claims	12	1	265	3
Receivables from derivatives	299	30	84	11
Other financial assets	37	3	29	4
	530	**213**	**481**	**116**

(a) Other investments

Other investments include shares in Borussia Dortmund GmbH & Co. KGaA, Dortmund (Germany) totaling €72 million (2015: €55 million), which are recognized at their stock market value as of the reporting date. This investment is therefore exposed to a market price risk and is allocated to the category available-for-sale.

Further, other investments contain unlisted equity instruments that are recognized at the cost of acquisition since their fair value cannot be determined reliably.

(b) Loans

Loans are recognized at amortized cost. They are exposed to an interest rate risk, which can affect their fair value or future cash flows.

Risk and maturity structure of loans

in € million	Dec. 31, 2016	Dec. 31, 2015
Impaired loans	**3**	**3**
Nominal value	3	3
Impairment losses	–	–
Non-impaired loans	**69**	**26**
Not yet due	69	26
Overdue	–	–
	72	**29**

As in the previous year, Evonik did not renegotiate the terms and conditions of any non-current loans in 2016.

(c) Securities and similar claims

Securities and similar claims mainly comprise bonds and money market paper purchased to invest in liquid funds. They are exposed to an interest rate risk, which can affect their fair value or future cash flows. All securities are classified as available-for-sale and are measured at market price. Securities listed on a stock exchange are exposed to a risk of changes in their market price.

In the previous year, this item contained various securities and similar claims totaling approximately €250 million which were bundled in a fully consolidated segregated investment fund.

(d) Receivables from derivatives

Receivables from derivatives

in € million	Dec. 31, 2016	Dec. 31, 2015
Receivables from cross-currency interest rate swaps	17	33
Receivables from forward exchange contracts, currency options and currency swaps	280	51
Receivables from commodity derivatives	2	–
	299	**84**

(e) Other financial assets

Other financial assets comprise time deposits at banks, receivables from profit-and-loss transfer agreements with investments that are not fully consolidated, and claims relating to the termination of contracts.

Risk and maturity structure of other financial assets

in € million	Dec. 31, 2016	Dec. 31, 2015
Impaired other financial assets	**3**	**3**
Nominal value	10	10
Impairment losses	–7	–7
Non-impaired other financial assets	**34**	**26**
Not yet due	33	26
Overdue	1	–
	37	**29**

(f) Security pledged

Financial assets pledged as security for Group liabilities amounted to €1 million (2015: €1 million). They comprised current securities provided as security for commitments to employees under the partial retirement program in Germany.

7.5 Inventories

Inventories

in € million	Dec. 31, 2016	Dec. 31, 2015
Raw materials and supplies	423	438
Work in progress	68	65
Finished goods and merchandise	1,188	1,260
	1,679	**1,763**

Impairment losses on raw materials, supplies and merchandise totaling €48 million were recognized in 2016 (2015: €37 million), while reversals of impairment losses amounted to €14 million (2015: €25 million). Reversals of impairment losses were mainly due to higher selling prices and improved market conditions.

7.6 Trade accounts receivable, other receivables

Trade accounts receivable, other receivables

	Dec. 31, 2016		Dec. 31, 2015	
in € million	**Total**	thereof non-current	**Total**	thereof non-current
Trade accounts receivable	1,661	–	1,813	–
Advance payments made	37	–	26	1
Miscellaneous other receivables	279	48	241	47
Deferred expenses	42	10	52	6
	2,019	**58**	**2,132**	**54**

Risk and maturity structure of trade accounts receivable

in € million	**Dec. 31, 2016**	Dec. 31, 2015
Impaired receivables	**18**	**4**
Nominal value	35	16
Impairment losses	–17	–12
Non-impaired receivables	**1,643**	**1,809**
Not yet due	1,408	1,540
Overdue	235	269
up to 3 months	181	235
more than 3 and up to 6 months	19	7
more than 6 and up to 9 months	5	13
more than 9 and up to 12 months	9	6
more than 1 year	21	8
	1,661	**1,813**

At year end, trade accounts receivable totaling €354 million (2015: €497 million) were covered by credit insurance, and €7 million (2015: €10 million) were covered by other collateral. As in the previous year, no terms were renegotiated for trade accounts receivable not yet due.

7.7 Equity

(a) Issued capital

As in the previous year, the company's fully paid-up capital was €466,000,000 on the reporting date. It is divided into 466,000,000 no-par registered shares. The arithmetic value of each share is €1.

(b) Authorized capital

A resolution on authorized capital was adopted at the Annual Shareholders' Meeting on May 20, 2014. This authorizes the Executive Board until May 1, 2019 to increase the company's capital stock, subject to the approval of the Supervisory Board, by up to €116,500,000 by issuing new registered no-par shares (Authorized Capital 2014).

This authorization may be exercised through one or more issuances.

The new shares may be issued against cash and/or contributions in kind. The Executive Board is authorized, subject to the approval of the Supervisory Board, to exclude shareholders' statutory subscription rights when issuing new shares in the following cases:

- capital increases against contributions in kind
- if the capital increase is against cash and the proportionate share of the capital stock attributable to the new shares does not exceed 10 percent of the capital stock, and the issue price of the new shares is not significantly below the stock market price of shares already listed on the stock exchange
- to exclude fractional amounts arising from the subscription ratio
- insofar as is necessary to grant holders and/or creditors of warrants or conversion rights or obligors of warrant and/or conversion obligations subscription rights to new shares to the extent that they would be entitled to them after exercise of their warrants and/or conversion rights or fulfillment of their warrant or conversion obligations
- to grant shares to employees (employee stock), provided that the new shares for which subscription rights are excluded do not in aggregate account for a proportionate share of the capital stock in excess of 1 percent
- for the execution of a scrip dividend.

The proportionate amount of the capital stock attributable to the shares for which subscription rights are excluded, together with the proportionate amount of the capital stock attributable to treasury stock or to conversion and/or warrant rights or obligations arising from debt instruments, which are sold or issued after May 20, 2014 under exclusion of subscription rights, may not exceed 20 percent of the capital stock. If the sale or issue takes place in application—analogously or mutatis mutandis—of Section 186 Paragraph 3 Sentence 4 of the German Stock Corporation Act (AktG), this shall also be deemed to constitute exclusion of subscription rights.

The Executive Board is authorized, subject to the approval of the Supervisory Board, to define further details of capital increases out of the Authorized Capital 2014.

The authorized capital has not yet been utilized.

(c) Conditional capital

Under a further resolution adopted by the Annual Shareholders' Meeting of May 20, 2014, the capital stock is conditionally increased by up to €37,280,000, divided into up to 37,280,000 registered shares with no par value (Conditional Capital 2014). This conditional capital increase relates to a resolution of the above Shareholder's Meeting granting authorization to issue convertible and/or warrant bonds.

The conditional capital increase will only be conducted insofar as holders or creditors of warrant or conversion rights or obligors of warrant or conversion obligations arising from warrant bonds and/or convertible bonds issued or guaranteed on the basis of the authorization resolved at the Annual Shareholders' Meeting of May 20, 2014, exercise their warrants or conversion rights or, insofar as they have an obligation to exercise the warrants or conversion obligations, meet the obligation to exercise the warrant or conversion obligations and other forms of settlement are not used. In principle, the shareholders have a statutory right to subscription rights to the convertible and/or warrant bonds; the authorization sets out specific cases where the Executive Board may exclude subscription rights to convertible and/or warrant bonds, subject to the approval of the Supervisory Board. The new shares shall be issued at the warrant or conversion price set in accordance with the above provisions of the resolution.

The new shares are entitled to a dividend from the start of the fiscal year in which they are issued.

The Executive Board is authorized, subject to the approval of the Supervisory Board, to define further details of capital increases out of the conditional capital.

The conditional capital has not yet been utilized.

(d) Treasury shares

On March 4, 2016, Evonik Industries AG announced that it would be utilizing the authorization granted by the Annual Shareholders' Meeting on March 11, 2013 to purchase shares in the company totaling up to €113.4 million by April 12, 2016 at the latest. The purpose of purchasing the shares was to grant shares to employees of Evonik Industries AG and certain subordinated companies in the Evonik Group as part of an employee share program.

Through this share buyback program, by April 12, 2016 Evonik Industries AG purchased a total of 574,115 shares in the company (corresponding to 0.1 percent or €574,115 of the capital stock). A total of €14.9 million was spent on the shares, corresponding to an average price of €25.90 per share. The purchases were made from March 8, 2016 at an average daily volume of around 23,900 shares on each Xetra trading day through a bank acting on the instructions of Evonik Industries AG. The consideration for each share repurchased (excluding ancillary costs) could not exceed or fall short of the opening price as set in the opening auction for the trading day for shares in Evonik Industries AG in Xetra trading on the Frankfurt Stock Exchange by more than 5 percent. At the end of April, 511,868 ordinary shares (including 130,327 bonus shares) were transferred to participating employees on the basis of the share price and the exchange rate for the US dollar prevailing on April 14, 2016. The remaining 62,247 ordinary shares were sold to third parties by April 19, 2016. As of December 31, 2016, Evonik Industries AG therefore no longer held any treasury shares.

The resolution adopted by the Annual Shareholders' Meeting on March 11, 2013 authorizing the Executive Board to buy back shares in the company was rescinded at the Annual Shareholders' Meeting on May 18, 2016, and replaced by a new authorization to buy shares in the company up to May 17, 2021.

(e) Capital reserve

The capital reserve mainly contains other payments received from shareholders pursuant to Section 272 Paragraph 2 No. 4 of the German Commercial Code (HGB).

(f) Accumulated income

The accumulated income of €5,716 million (2015: €5,821 million) comprises both Group earnings from 2016 and previous years, as well as other comprehensive income from the remeasurement of the net benefit liability for defined benefit pension plans. Income after taxes corresponds to the net income attributable to shareholders of Evonik Industries AG, as stated in the income statement for fiscal 2015. However, under German stock corporation law, only revenue reserves from the separate financial statements drawn up by Evonik Industries AG which are not subject to any restrictions are available for distribution. As of December 31, 2016, the revenue reserves of Evonik Industries AG totaled €4,606 million (2015: €4,235 million). €47 million of this comprised the statutory reserve that is not available for distribution.

A proposal will be submitted to the Annual Shareholders' Meeting that the net profit of Evonik Industries AG of €935,900,000.00 for 2016 should be used to pay a dividend of €535,900,000.00. That corresponds to a dividend of €1.15 per no-par share.

(g) Accumulated other comprehensive income

Accumulated other comprehensive income contains gains and losses that are not included in the income statement. The reserve for gains and losses on available-for-sale securities contains remeasurement amounts resulting from changes in the value of financial instruments that are expected to be temporary and thus not charged to income. The reserve for gains and losses on hedging instruments comprises changes in the fair value of the effective portion of hedging instruments that are accounted for as cash flow hedges or net investment hedges. The reserve for revaluation surplus for acquisitions made in stages contains the change in the fair value of shares previously held in subsidiaries that were consolidated for the first time on or before December 31, 2009. The reserve for currency translation adjustment comprises differences arising from the translation of foreign financial statements.

Change in accumulated other comprehensive income attributable to shareholders of Evonik Industries AG

in € million	Gains/losses on available-for-sale securities	Gains/losses on hedging instruments	Revaluation surplus for acquisitions in stages	Currency translation adjustment	Total
As of January 1, 2015	**–9**	**–83**	**14**	**–166**	**–244**
Other comprehensive income as in the statement of comprehensive income	**15**	**24**	**–**	**247**	**286**
Recognized gains and losses	12	–171	–	–	–159
Amounts reclassified to the income statement	9	202	–	–	211
Amounts reclassified to assets and liabilities	–	1	–	–	1
Currency translation adjustment	–	–	–	244	244
Attributable to the equity method (after income taxes)	–	3	–	3	6
Deferred taxes	–6	–11	–	–	–17
Other changes	**–**	**–**	**–2**	**–**	**–2**
As of December 31, 2015	**6**	**–59**	**12**	**81**	**40**
Other comprehensive income as in the statement of comprehensive income	**15**	**120**	**–**	**137**	**272**
Recognized gains and losses	19	93	–	–	112
Amounts reclassified to the income statement	–	56	–	–	56
Amounts reclassified to assets and liabilities	–	–	–	–	–
Currency translation adjustment	–	–	–	136	136
Attributable to the equity method (after income taxes)	–	–	–	1	1
Deferred taxes	–4	–29	–	–	–33
Other changes	**–**	**–**	**–2**	**–**	**–2**
As of December 31, 2016	**21**	**61**	**10**	**218**	**310**

In 2016, an overall hedging result of –€56 million (2015: –€202 million) was reclassified from the reserve for gains/losses on hedging instruments to the income statement as follows:

Reclassification of hedging results from accumulated other comprehensive income to the income statement

in € million	2016	2015
Sales	–29	–182
Cost of sales	–8	–4
Other operating income/expenses	–	1
Net interest expense	–3	–3
Other financial income/expense	–16	–14
	–56	**–202**

(h) Non-controlling interests

Non-controlling interests amounting to €92 million (2015: €83 million) comprise shares in the issued capital and reserves of consolidated subsidiaries that are not attributable to the shareholders of Evonik Industries AG.

Changes in shareholdings in subsidiaries without loss of control where negligible in 2016. In 2015 there were no changes in shareholdings in subsidiaries without loss of control.

Change in accumulated other comprehensive income attributable to non-controlling interests

in € million	Currency translation adjustment	Total
As of January 1, 2015	**2**	**2**
Other comprehensive income as in the statement of comprehensive income	**1**	**1**
Currency translation adjustment	1	1
As of December 31, 2015	**3**	**3**
Other comprehensive income as in the statement of comprehensive income	**1**	**1**
Currency translation adjustment	1	1
As of December 31, 2016	**4**	**4**

7.8 Provisions for pensions and other post-employment benefits

Provisions for pensions are established to cover benefit plans for retirement, disability and surviving dependents' pensions. The benefit obligations vary depending on the legal, tax and economic circumstances in the various countries in which the companies operate. The level of the benefit obligations generally depends on length of service and remuneration.

At the German companies, occupational pension plans are predominantly defined benefit plans. They are primarily funded by provisions, pension fund assets and a contractual trust arrangement (CTA).

The pension plans at foreign companies may be either defined contribution or defined benefit plans.

The present value of the defined benefit obligations and the fair value of the plan assets as of December 31, 2016 mainly relate to the following countries:

Breakdown of the present value of the defined benefit obligation and the fair value of plan assets 2016

	2016	
in € million	Defined benefit obligation	Plan assets
Evonik total	**11,585**	**7,807**
thereof Germany	10,094	6,555
thereof pension fund/reinsured support fund	4,496	3,276
thereof funded through CTA	5,272	3,279
thereof USA	743	485
thereof UK	570	637

Breakdown of the present value of the defined benefit obligation and the fair value of plan assets 2015

	2015	
in € million	Defined benefit obligation	Plan assets
Evonik total	**10,542**	**7,302**
thereof Germany	9,099	6,066
thereof pension fund/reinsured support fund	3,933	3,102
thereof funded through CTA	4,845	2,964
thereof USA	720	451
thereof UK	564	670

The main pension plans for employees in Germany are as follows:

Pension fund (Pensionskasse): There are a number of closed pension plans. Income-related contributions are converted into defined benefits and invested with the company-owned Degussa Pension Fund. The structure of the tariffs, including investment of the assets, is subject to oversight by the supervisory authority for the insurance sector. The pension fund is a multi-employer fund. It is funded on a projected benefit basis. The level of plan assets required to cover the projected benefits is derived from a technical business plan approved by the supervisory authority, and from statutory requirements. Funding must be sufficient at all times to cover benefits, which have to be upheld even if the employer's contributions are terminated. The company contribution to Tariff DuPK is calculated to ensure that, together with the employee contributions, funding of the resulting entitlements in line with the technical business plan is assured. The company contribution to the Marl and Troisdorf tariffs is proposed by the responsible actuary and is based on the funds required to cover the benefits. As the sponsoring company of this pension fund, Evonik Degussa GmbH has a contractual obligation to cover benefits under the Marl and Troisdorf tariffs if sufficient funding is not available. This obligation is not limited to the company where the insurees are employed. The obligation was assumed on the basis of a requirement stipulated by the supervisory authority when these tariffs were established. At that time, only company employees were insured in the plan. At present, it is not possible to estimate whether this obligation could be of relevance as a supplement to the tools set out in the pension fund regulation, such as increasing company contributions or cutting benefits in the event of a loss.

Support fund (Unterstützungskasse): This is the plan that is open to new employees. It also allows for deferred compensation arrangements. Income-related contributions are converted into defined benefits and invested with the company-owned Degussa Pension Fund. The structure of the tariffs, including investment of the assets, is subject to oversight by the supervisory authority for the insurance sector. Pension increases of 1 percent p. a. are a firm commitment. The support fund meets the criteria for classification as a multi-employer plan. It is funded through reinsurance with the Degussa Pension Fund, which maintains sufficient funding for this in compliance with the German Insurance Supervision Act and the ordinances issued by the supervisory authority. Funding must be sufficient at all times to cover benefits, which have to be upheld even if the employer's contributions are terminated. The level of benefits is based on the contributions paid into the fund. The support fund does not have any arrangements under which the Group is liable for the obligations of companies outside the Evonik Group in the event of inadequate funding.

Direct pension commitments: These comprise various defined benefit plans where the pension benefit is generally directly or indirectly linked to the final salary. Most of these plans grant higher benefits for income components above the ceiling for contributions to the state pension insurance plan or are intended exclusively to cover such income components. All final salary plans are closed and in most cases they now only operate through the protection of the accrued benefits for insurees who are currently still working.

Direct commitments of this type are now only used for senior executives and voluntary deferred compensation arrangements. In such cases, a defined benefit is calculated on the basis of an income-related contribution or an amount credited by the employee. Insurees can choose between various forms of payment, for example, as a lump sum, an annuity or installment payments. The benefits include a fixed pension increase of 1 percent a year.

Plan assets for large Group companies, which account for the vast majority of obligations under direct commitments, are managed by Evonik Pensionstreuhand e. V. This fund is not subject to regulatory oversight or minimum funding requirements. It uses an asset-liability matching strategy, whereby changes in obligations are offset through changes in the plan assets. In this strategy, the interest rate and credit sensitivities of the liabilities are partially replicated in the plan assets.

Description of the potential risks arising from pension plans:

Most German pension plans grant lifelong pension benefits. A specific risk here is that rising life expectancy could increase the benefit obligation. In most cases, increases in the benefits paid by these funds are linked to the consumer price index. This entails an additional inflation risk. In the case of plans where employees can choose between a lump-sum payment or an annuity, there is a risk that the option could be selected on the basis of individual assessments of health and life expectancy.

For final salary plans, the benefit risk relates to future salary trends for employees covered by collective agreements and exempt employees and, in some cases, changes in the ceiling for contributions to statutory pension insurance.

Where assets are invested externally by the pension fund, support fund and Evonik Pensionstreuhand e. V., plans are exposed to a capital market risk. Depending on the composition of the investment portfolio, this comprises a risk of changes in value and income risks which could mean that the assumed performance or return is not generated over the term of the investment. Under German legislation on occupational pensions, the employer is liable to cover firm benefit commitments and guaranteed returns.

The main pension plans for employees in the USA:

In the USA there are unfunded, fully funded and partially funded pension plans and post-employment benefits under healthcare plans. The majority of the obligations relate to funded plans. The defined benefit pension plans in the USA are not open to new employees. Benefits are based on a range of parameters such as final salary, average salary during career, individual pension accounts, and fixed benefits. Most plans include a lump-sum option with a corresponding risk to the company that this will be utilized. Minimum funding levels have to be observed. To avoid volatility this is supported by an asset-liability matching strategy. This is implemented primarily through US government bonds and corporate bonds denominated in US dollars. The assets are managed by a pension trust.

The main pension plans for employees in the UK:

In the UK, plans are organized through external trusts and the majority of the assets are invested in funds. The majority of the obligations relate to vested benefits for former employees and retirees. Only one plan is still open to new employees. Almost all plans are final salary plans. The plan assets are subject to the asset ceiling. They are required to meet minimum funding requirements that are agreed with the trustees. Similarly, surplus assets cannot be returned to the companies without the approval of the trustees. The investment strategy for plan assets is an asset-liability matching strategy which is implemented principally through inflation-linked British government bonds and British corporate bonds.

The table shows the weighted average assumptions used for the actuarial valuation of the obligations:

Assumptions used in the actuarial valuation of pension obligations

	Group		Germany	
in %	**2016**	2015	**2016**	2015
Discount rate as of December 31	2.16	2.91	2.00	2.75
Future salary increases	2.57	2.55	2.50	2.50
Future pension increases	1.59	1.70	1.50	1.75
Healthcare cost trend	6.76	7.00	–	–

The discount rate for Germany and the euro-zone countries is extrapolated from a yield structure curve derived from AA-rated corporate bonds denominated in euros and, where there are no longer any market data, a yield curve for zero-coupon German government bonds, taking into account a risk premium for euro-denominated AA-rated corporate bonds. The data on AA-rated euro-denominated corporate bonds is based on bonds with an AA rating from at least one of the major rating agencies. The yield structure curve derived from AA-rated euro-denominated corporate bonds is used to determine the present value of the cash flows from company pension obligations. The discount rate comprises the rounded constant interest rate that results in the same present value when applied to the cash flow.

Analogous methods are used in the UK and the USA. As of December 31, 2016, the rounded discount rate was 4.08 percent for the USA (2015: 4.41 percent) and 2.46 percent for the UK (2015: 3.62 percent).

Change in the present value of the defined benefit obligation

in € million	**2016**	2015
Present value of the defined benefit obligation as of January 1	**10,542**	**10,650**
Current service cost	180	191
Interest cost	297	281
Employee contributions	52	46
Actuarial gains (–) and losses (+) (remeasurement component)	985	–371
of which based on financial assumptions	1,062	–423
of which based on demographic assumptions	–18	16
of which changes in the past fiscal year	–59	36
Benefits paid	–428	–433
Past service cost	–2	1
Changes at the companies	17	70
Gain/loss from settlement	–	–1
Payments for settlement of plans	–	–3
Currency translation	–58	111
Present value of the defined benefit obligation as of December 31	**11,585**	**10,542**

The weighted term of the obligations is 17.1 years (2015: 16.1 years).

No cash contributions were made to Evonik Pensionstreuhand e. V. in 2016 (2015: €200 million).

Breakdown of the present value of the defined benefit obligation

in € million	2016	2015
Unfunded plans	365	357
Partially or fully funded plans	11,101	10,057
Healthcare benefit obligations	119	128
Present value of the defined benefit obligation as of December 31	**11,585**	**10,542**

Change in the fair value of plan assets

in € million	2016	2015
Fair value of plan assets as of January 1	**7,302**	**6,811**
Interest income from plan assets	211	189
Employer contributions	174	364
Employee contributions	11	11
Income from assets excluding interest income from plan assets (remeasurement component)	376	−26
Other administrative expense	−5	−5
Benefits paid	−181	−185
Payments for settlement of plans	–	−3
Changes at the companies	–	55
Currency translation	−81	91
Fair value of plan assets as of December 31	**7,807**	**7,302**

Breakdown of the fair value of plan assets

	Dec. 31, 2016		Dec. 31, 2015	
	in € million	in %	in € million	in %
Cash/balances with banks	184	2.4	108	1.5
Shares—active market	713	9.1	705	9.7
Shares—no active market	–	–	–	–
Government bonds—active market	1,175	15.1	1,128	15.5
Government bonds—no active market	45	0.6	58	0.8
Corporate bonds—active market	2,344	30.0	2,187	29.9
Corporate bonds—no active market	658	8.4	36	0.5
Other bonds—active market	393	5.0	454	6.2
Other bonds—no active market	–	–	681	9.3
Real estate, direct and indirect investments—active market	16	0.2	14	0.2
Real estate, direct and indirect investments—no active market	1,483	19.0	1,244	17.0
Other investment funds—active market	2	–	1	–
Other investment funds—no active market	–	–	–	–
Alternative investments (infrastructure/hedge funds/commodities)—active market	580	7.4	524	7.2
Alternative investments (infrastructure/hedge funds/commodities)—no active market	89	1.2	114	1.6
Other—active market	48	0.6	38	0.5
Other—no active market	77	1.0	10	0.1
	7,807	**100.0**	**7,302**	**100.0**

In 2016, as in 2015, none of the other assets were used by the company.

Change in the asset ceiling

in € million	2016	2015
Asset ceiling as of January 1	**109**	**114**
Interest expense on the unrecognized portion of plan assets	4	4
Changes in asset ceiling, excluding interest expense (remeasurement component)	−24	−16
Changes at the companies	–	–
Currency translation	−15	7
Asset ceiling as of December 31	**74**	**109**

Change in pension provisions

in € million	Dec. 31, 2016	Dec. 31, 2015
Pension provisions recognized on the balance sheet as of January 1	**3,349**	**3,953**
Current service cost	180	191
Past service cost	−2	1
Gain/loss from settlement	–	−1
Net interest cost	90	96
Employee contributions	41	35
Other administrative expense	5	5
Changes recognized in OCI (remeasurement)	585	−361
Benefits paid	−247	−248
Employer contributions	−174	−364
Changes at the companies	17	15
Currency translation	8	27
Pension provisions recognized on the balance sheet as of December 31	**3,852**	**3,349**

The pension provisions recognized on the balance sheet included healthcare benefit entitlements, mainly of retirees of US subsidiaries.

Expected change in benefit payments

in € million	Reporting period	Prior year
2016		245
2017	253	255
2018	260	254
2019	264	258
2020	267	261
2021	275	

Employer contributions of €207 million are expected to be incurred for 2017 (2016: €168 million).

The net interest expense is included in the financial result, see Note 6.6. The other amounts are allocated to the functional areas as personnel expense (pension expenses). A breakdown of overall personnel expense is given in Note 11.2.

For details of the deferred tax assets relating to pension provisions, please see Note 7.12, Deferred taxes, other income taxes.

Foreign subsidiaries paid a total of €27 million (2015: €18 million) into defined contribution plans, which are also included in personnel expense (pension expenses).

Further, €139 million (2015: €138 million) were paid into defined-contribution state plans (statutory pension insurance) in Germany and abroad. This is also reported in personnel expense (expenses for social security contributions).

7.9 Other provisions

Other provisions

	Dec. 31, 2016		Dec. 31, 2015	
in € million	**Total**	thereof non-current	**Total**	thereof non-current
Personnel-related	913	367	900	358
Recultivation and environmental protection	329	257	313	262
Restructuring	138	55	322	95
Sales and procurement	114	11	131	4
Other taxes and interest on taxes	35	24	63	35
Dismantling obligations	7	6	9	8
Other obligations	316	97	293	92
	1,852	**817**	**2,031**	**854**

Overall, the other provisions were €179 million lower than in 2015, principally due to the development of provisions for restructuring. It is expected that slightly more than half of total provisions will be utilized in 2017.

Provisions relating to material legal risks amounted to €121 million (2015: €231 million) and are allocated to the various categories of provisions on the basis of their type. The principal legal risks for which provisions have been set up relate to three ongoing appraisal proceedings in connection with the settlement paid to former shareholders, and a claim for indemnification from environmental guarantees filed by the purchaser of the former carbon black business. A provision has been recognized for the expected costs of a legal dispute involving proceedings to fine Evonik in connection with deliveries of methionine to Brazil. The background is outlined in detail in section 7.4 of the management report.

Change in other provisions

in € million	Personnel-related	Recultivation, environmental protection	Restructuring	Sales, procurement	Other taxes, interest on taxes	Dismantling obligations	Other obligations	Total
As of January 1, 2016	**900**	**313**	**322**	**131**	**63**	**9**	**293**	**2,031**
Additions	482	32	18	84	13	–	117	746
Utilization	–477	–20	–25	–56	–23	–	–52	–653
Reversal	–6	–2	–174	–47	–13	–1	–35	–278
Addition of accrued interest/ interest rate adjustments	17	5	5	–	–	–	–	27
Other	–3	1	–8	2	–5	–1	–7	–21
As of December 31, 2016	**913**	**329**	**138**	**114**	**35**	**7**	**316**	**1,852**

Personnel-related provisions are established for many different reasons. They include provisions for bonuses and variable remuneration, statutory and other early retirement arrangements, lifetime working arrangements and anniversary bonuses. About one quarter of non-current personnel-related provisions will result in payments after the end of 2021.

Provisions are established for recultivation and environmental protection on the basis of laws, contracts and regulatory requirements. They cover soil reclamation obligations, water protection, the recultivation of landfills and site decontamination obligations. Slightly less than two thirds of the non-current provisions will result in payments after the end of 2021.

Provisions for restructuring are based on defined restructuring measures. Such measures comprise programs which are planned and controlled by the company and will materially alter one of the company's areas of business activity or the way in which a business activity is carried out. Restructuring provisions may only be established for costs that are directly attributable to the restructuring program. These include severance packages, redundancy and early retirement arrangements, expenses for the termination of contracts, dismantling and soil reclamation expenses, rents for unused facilities and all other shutdown and wind-up expenses. As of the reporting date, this included, among other things, a provision for a program to further strengthen our competitive position and to optimize the quality of our administrative processes. Part of this provision was reversed in the reporting period. This reversal, together with the partial reversal of a provision relating to the former Energy Business Area, which was divested in 2011, made a substantial contribution to the reduction in provisions for restructuring in the reporting period. Most of the non-current portion of provisions for restructuring will be utilized by the end of 2021.

The provisions for sales and procurement relate principally to guarantee obligations, outstanding commission payments, price discounts and rebates, and contracts where the unavoidable costs of meeting the contractual obligations exceed the expected economic benefit of the contract. The non-current portion will be utilized by the end of 2021.

Provisions for other taxes and interest on taxes mainly comprise property tax, value-added tax and interest obligations relating to all types of taxes. The non-current portion will be utilized by the end of 2021.

Provisions for dismantling obligations relate to dismantling that is not part of a restructuring program. Most of the non-current portion will be utilized after the end of 2021.

Provisions for other obligations comprise provisions for a variety of obligations that cannot be allocated to the above categories. These include provisions for legal disputes, administrative proceedings or fines, liability risks and guarantee claims relating to divestments. This item also includes provisions for legal and consultancy expenses, audit fees, and changes in public law regulations, for example in connection with the levy on renewable energy sources and European emissions trading. The provisions for material legal risks included in this category amount to €121 million (2015: €115 million). The non-current portion of provisions for other obligations will mainly be utilized by year-end 2021.

7.10 Financial liabilities

Financial liabilities

	Dec. 31, 2016		Dec. 31, 2015	
in € million	**Total**	thereof non-current	**Total**	thereof non-current
Bonds	3,127	3,127	1,241	1,241
Liabilities to banks	375	103	282	118
Loans from non-banks	16	–	14	–
Liabilities from derivatives	188	94	151	53
Other financial liabilities	29	10	18	3
	3,735	**3,334**	**1,706**	**1,415**

(a) Bonds

The €1,886 million increase in bonds to €3,127 million was due to the issue in September 2016 of three bonds with a total nominal value of €1,900 million. They were issued in connection with the acquisition of the specialty additives business of Air Products and the issue prices were 99.771 percent (2016/2021 bond), 99.490 percent (2016/2024 bond) and 99.830 percent (2016/2028 bond).

Bonds

			Carrying amount		Stock market value	
in € million	Coupon in %	Nominal value	**Dec. 31, 2016**	Dec. 31, 2015	**Dec. 31, 2016**	Dec. 31, 2015
Evonik Industries AG						
Fixed-interest bond 2013/2020	1.875	500	497	497	530	525
Fixed-interest bond 2015/2023	1.000	750	745	744	767	734
Evonik Finance B.V.						
Fixed-interest bond 2016/2021	0.000	650	647	–	644	–
Fixed-interest bond 2016/2024	0.375	750	745	–	720	–
Fixed-interest bond 2016/2028	0.750	500	493	–	465	–

Fixed-interest bonds are exposed to a risk of price fluctuations while variable-rate liabilities are exposed to a risk of changes in interest rates. These risks may affect their fair value or future cash flows.

(b) Loans from non-banks

The accrual of €16 million (2015: €14 million) for payment of the coupon on the bonds is recognized in current loans from non-banks.

(c) Liabilities from derivatives

Liabilities from derivatives

in € million	Dec. 31, 2016	Dec. 31, 2015
Liabilities from cross-currency interest rate swaps	23	34
Liabilities from forward exchange contracts and currency swaps	160	96
Liabilities from commodity derivatives	5	21
	188	**151**

7.11 Trade accounts payable, other payables

Trade accounts payable, other payables

	Dec. 31, 2016		Dec. 31, 2015	
in € million	Total	thereof non-current	Total	thereof non-current
Trade accounts payable	1,212	–	1,090	–
Advance payments received	29	–	31	–
Miscellaneous other payables	366	27	295	45
Deferred income	140	44	89	61
	1,747	**71**	**1,505**	**106**

7.12 Deferred taxes, other income taxes

Deferred taxes and other income taxes reported on the balance sheet

	Dec. 31, 2016		Dec. 31, 2015	
in € million	Total	thereof non-current	Total	thereof non-current
Deferred tax assets	1,162	1,006	1,110	926
Current income tax assets	236	8	122	11
Deferred tax liabilities	453	407	479	425
Other income tax liabilities	256	173	359	150

In accordance with IAS 1 Presentation of Financial Statements, the current elements of deferred taxes are reported on the balance sheet under non-current assets and liabilities.

Deferred taxes by balance sheet item

in € million	Deferred tax assets Dec. 31, 2016	Deferred tax assets Dec. 31, 2015	Deferred tax liabilities Dec. 31, 2016	Deferred tax liabilities Dec. 31, 2015
Assets				
Intangible assets	3	3	127	125
Property, plant and equipment, investment property	45	43	415	409
Financial assets	645	559	166	97
Inventories	63	72	1	–
Receivables and other assets	248	301	31	18
Liabilities				
Provisions	1,197	1,086	908	856
Payables	203	76	56	30
Special tax allowance reserves (based on local law)	–	–	28	13
Loss carryforwards	35	40	–	–
Tax credits	1	1	–	–
Other	1	3	–	5
Deferred taxes (gross)	**2,441**	**2,184**	**1,732**	**1,553**
Netting	−1,279	−1,074	−1,279	−1,074
Deferred taxes (net)	**1,162**	**1,110**	**453**	**479**

€1,013 million (2015: €877 million) of the deferred tax assets relate to the pension provisions recognized on the balance sheet.

No deferred tax assets were recognized on temporary differences of €357 million (2015: €273 million) because it is not probable that there will be sufficient future taxable income to enable them to be realized.

The total taxable temporary differences relating to shares in subsidiaries, associates and joint ventures, for which no deferred taxes were recognized, were €1,872 million. €1,789 million of this amount is only subject to a tax rate of around 1.5 percent, based on Section 8b of the German Corporation Tax Act (KStG). Evonik is in a position to manage the timing of the reversal of temporary differences.

Deferred tax assets of €14 million (2015: €15 million) were recognized for companies that made a loss. Utilization will be ensured by suitable measures.

In addition to tax loss carryforwards for which deferred taxes were recognized, there were tax loss carryforwards that were not utilizable and for which no deferred taxes were recognized.

Tax loss carryforwards by expiration date

in € million	Corporation taxes (German and foreign) 2016	Corporation taxes (German and foreign) 2015	Local taxes (German and foreign) 2016	Local taxes (German and foreign) 2015	Tax credits (foreign) 2016	Tax credits (foreign) 2015
Up to 1 year	3	42	–	–	–	–
More than 1 and up to 5 years	183	168	–	–	–	–
More than 5 and up to 10 years	8	4	–	–	–	–
Unlimited	362	270	228	158	1	6
	556	**484**	**228**	**158**	**1**	**6**

8. Notes to the cash flow statement

The cash flow statement shows the changes in cash and cash equivalents of the Group in the reporting period. The cash flows are classified by operating, investing and financing activities.

The net cash flow from discontinued operations that is attributable to third parties is shown separately.

The impact of changes in the scope of consolidation has been eliminated.

Interest paid and interest and dividends received are included in operating activities, while dividends paid are assigned to financing activities.

8.1 Cash flow from operating activities

The cash flow from operating activities is calculated using the indirect method. Income before the financial result and income taxes, continuing operations, is adjusted for the effects of non-cash income and expenses and items that are allocated to investing or financing activities. Certain other changes in amounts shown on the balance sheet are calculated and added to the result.

8.2 Cash flow from investing activities

The cash outflows for investments in shareholdings include the following:

The gross purchase prices for the acquisition of shares in subsidiaries consolidated for the first time amounted to €97 million (2015: €54 million). As in the previous year, the entire purchase prices comprised a cash outflow. The acquisitions made in these two years included cash and cash equivalents of €1 million in each year.

8.3 Cash and cash equivalents

The cash and cash equivalents of €4,623 million (2015: €2,368 million) comprise the cash and cash equivalents shown on the balance sheet.

9. Notes on the segment report

9.1 Reporting based on operating segments

The Executive Board of Evonik Industries AG decides on the allocation of resources and evaluates the earnings power of the Group's operations on the basis of the following reporting segments, which reflect the core operating business (subsequently referred to as segments):

- Nutrition & Care
- Resource Efficiency
- Performance Materials
- Services.

The reporting based on operating segments therefore reflects the internal reporting and management structure of the Evonik Group (management approach).

The same accounting standards are applied as for external financial reporting, see Notes 3.4 to 3.6.

Evonik's segments are outlined below:

(a) Nutrition & Care

The Nutrition & Care segment produces specialty chemicals, principally for use in consumer goods for daily needs, and in animal nutrition and healthcare products.

Ingredients, additives and system solutions for high-quality consumer goods and specific industrial applications are focal areas of this segment. It has outstanding knowledge of interfacial chemistry. Its products are based on an extensive range of oleochemical derivatives, organically modified silicones, and active ingredients produced by biotechnology. Key success factors are high innovative capability, integrated technology platforms and strategic partnerships with important consumer goods manufacturers. The Nutrition & Care segment also produces and markets essential amino acids for animal nutrition. Alongside its high technological competence, one factor in its success is years of experience of chemical synthesis and biotechnology, which Evonik regards as major growth drivers. Other significant competitive advantages for this segment are its global distribution network and extensive and differentiated service offering. The Nutrition & Care segment is also a strategic partner for the healthcare industry.

(b) Resource Efficiency

The Resource Efficiency segment supplies high-performance materials for environment-friendly and energy-efficient system solutions for the automotive, paints, coatings, adhesives and construction industries and many other sectors.

The segment has a broad technology platform, which includes its integrated silicon technology platform. Key customers include the tire, electronics, construction and fiber optics industries. This segment's core competency is the production, design and structuring of the specific surface properties of inorganic particles. Its offering is complemented by fumed specialty oxides, chlorosilanes and organofunctional silanes. It also develops and manufactures a broad spectrum of catalysts in close collaboration with customers. It supplies high-quality additives to the coatings, colorants, adhesives and sealants industry. Further, it produces high-performance oil additives and additives for hydraulic fluids. In addition, this segment manufactures materials based on polyetherether ketone (PEEK) and polyimides to meet high-tech mechanical, thermal and chemical requirements. The Resource Efficiency segment is a pioneer in the field of isophorone chemistry. For more than 50 years it has marketed a broad spectrum of products and expertise for coatings, adhesives, high performance elastomers and composites. Thanks to its innovative capability, the Resource Efficiency segment has gained access to new growth markets for hydrogen peroxide.

(c) Performance Materials

The heart of the Performance Materials segment is the production of polymer materials and intermediates, mainly for the rubber, plastics and agriculture industries.

Success factors for this segment are advanced chemical processes, which Evonik has developed systematically over decades, including its integrated technology platforms for methylmethacrylate (MMA) and C_4 chemistry. It also produces alkoxides, which are used as catalysts in the production of biodiesel.

(d) Services

The Services segment provides site management, utilities and waste management, technical, process technology, engineering, and logistics services for the chemicals segments and external customers at Evonik's sites. This segment also supports the chemicals businesses and the management holding company by providing standardized Group-wide business services, for example, in the areas of IT, human resources, accounting and legal services.

(e) Other operations, Corporate and consolidation

Other operations contains the Group's business activities that are not assigned to any of the reporting segments.

The column headed "Corporate, consolidation" includes the management holding company, strategic research, hidden reserves and liabilities and goodwill relating to former acquisitions of shares in Evonik Degussa and intersegment consolidation effects.

9.2 Reporting based on regions

For this purpose, countries and country groups are aggregated into regions. Details of the reporting based on regions is outlined in more detail in Note 9.3.

For reasons of simplification, in the segment report by regions in the past the results from hedging of planned sales were allocated to sales in the country where the counterparty of the hedging transaction was based. Since financial management is largely centralized, this was mainly Germany. From January 1, 2016, by contrast, hedging results have been allocated to the country to which the associated hedged sales are allocated. The prior-year figures have been restated where applicable.

9.3 Notes to the segment data

External sales reflect the segments' sales with parties outside the Group. Sales generated between the segments are internal sales and are cross-charged at market prices or using the cost-plus method.

Reconciliation from the sales of all reporting segments to Group sales

in € million	2016	2015
Sales, reporting segments	**14,849**	**15,572**
Sales, other operations	53	147
Corporate, consolidation, less discontinued operations	–2,170	–2,212
External sales of the Evonik Group	**12,732**	**13,507**

External sales by country (location of customer)

in € million	2016	2015
Germany	2,441	2,604
USA	2,306	2,406
China	1,007	1,051
Switzerland	679	741
Netherlands	467	499
Japan	444	347
France	401	400
UK	360	451
Brazil	331	367
Italy	321	337
Other countries	3,975	4,304
External sales of the Evonik Group	**12,732**	**13,507**

Prior-year figures restated.

The result from investments recognized at equity corresponds to the result for these investments as reported in the income statement, see Note 6.5.

The Executive Board of Evonik Industries AG uses adjusted EBITDA, as the main parameter to measure operating performance. Adjusted EBITDA is the main earnings parameter that can be influenced by the segment management. It comprises earnings before financial result, income taxes, depreciation, amortization and impairment losses/reversal of impairment losses; after adjustments.

Reconciliation from adjusted EBITDA of the reporting segments to income before income taxes, continuing operations

in € million	2016	2015
Adjusted EBITDA, reporting segments	**2,505**	**2,799**
Adjusted EBITDA, other operations	–109	–119
Adjusted EBITDA, Corporate	–228	–227
Consolidation	–3	4
Less discontinued operations	–	8
Adjusted EBITDA, Corporate, consolidation	**–231**	**–215**
Adjusted EBITDA	**2,165**	**2,465**
Depreciation and amortization	–707	–700
Impairment losses/reversals of impairment losses	–74	–80
Depreciation, amortization, impairment losses/reversal of impairment losses included in adjustments	64	67
Depreciation and amortization	**–717**	**–713**
Adjusted EBIT	**1,448**	**1,752**
Adjustments[a]	–150	–88
Financial result	–174	–223
Income before income taxes, continuing operations	**1,124**	**1,441**

[a] See management report, section 2.4 Business performance.

The adjusted EBITDA margin is the ratio of adjusted EBITDA to external sales.

Adjusted EBIT comprises earnings before financial result and income taxes, after adjustments. It is used to calculate the internal management parameter return on capital employed (ROCE).

Capital employed comprises the net assets required by the reporting segments for their operations. It is calculated by determining the total of intangible assets, property, plant and equipment, investments, inventories, trade accounts receivable, and other non-interest-bearing assets. The sum of interest-free provisions, trade accounts payable, and other interest-free liabilities is then deducted from this.

The return on capital employed (ROCE) is another internal management parameter used by the Group. ROCE is calculated from the ratio of adjusted EBIT to capital employed. To smooth the closing date effect, the calculation uses average capital employed in the reporting period.

Depreciation and amortization relate to the depletion in the value of intangible assets, property, plant and equipment over their estimated useful life.

Capital expenditures comprise additions to intangible assets (excluding goodwill from capital consolidation), property, plant and equipment. Additions resulting from changes in the scope of consolidation are not taken into account. Capital expenditures by region are based on the location of the subsidiaries.

Additions to investments recognized at equity, other investments, non-current loans and non-current securities and similar claims made in the reporting period are recognized as financial investments. The acquisition of subsidiaries is shown as an addition to financial investments in the year of acquisition (including goodwill from capital consolidation).

The headcount is taken on the reporting date. It shows the number of employees. Part-time employees are included as absolute figures. The headcount by region is based on the location of the subsidiaries.

Goodwill, other intangible assets, and property, plant and equipment are segmented by the location of the subsidiaries. Together, these assets comprise the non-current assets in accordance with IFRS 8 Operating Segments (c.f. IFRS 8.33 b).

Breakdown of non-current assets by country

in € million	Dec. 31, 2016	Dec. 31, 2015
Germany	4,500	4,373
USA	1,492	1,321
China	808	871
Singapore	627	613
Belgium	528	546
Other countries	1,398	1,252
Non-current assets	**9,353**	**8,976**

10. Other disclosures

10.1 Performance-related remuneration

Evonik's remuneration system comprises a basic salary, annual short-term incentive payments and, as a long-term component, the Long-Term Incentive (LTI) Plans for members of the Executive Board and other executives of the Evonik Group. Since Evonik did not have a quoted share price, for members of the Executive Board the targets for the annual tranches of these LTI Plans issued up to and including 2012 were based on the development of uniformly defined business indicators. However, the target amounts and performance periods of the plans differed. Following the stock exchange listing, the performance of Evonik shares became the central element in the LTI Plan for the first time in 2013. The redesigned LTI Plan was introduced for both Executive Board members and other executives. Following the stock exchange listing of Evonik Industries AG, the performance of shares in the company also became relevant for the valuation of the pre-2013 LTI Plans.

All LTI Plans are share-based payments with cash settlement. They are valued on the reporting date using a Monte Carlo simulation, which models exercise patterns. The LTI Plans result in personnel expense which is distributed over the term of each tranche.

(a) Evonik LTI Plan for members of the Executive Board—2011 and 2012 tranches

The reference base for this long-term remuneration component is a sustained rise in the value of the company. The plan rewards achieving or exceeding the operating earnings targets set in the mid-term planning and their impact on the value of the company. Each of these tranches runs for five years from January 1 of the year in which it was granted.

Entitlements are based on individually agreed target amounts provided that earnings targets are met (lower threshold). LTI payments are calculated in the year following the end of the performance period, when the necessary indicators are available. Payments are capped at three times the target amount, and can be zero if the defined lower threshold is not reached.

To determine the value of the company as a basis for ascertaining target attainment, the share price at the end of the performance period is used. For this purpose, the average price of shares in Evonik in the three months prior to the end of the performance period is calculated. In addition, dividends paid and any capital increases or decreases during the performance period are taken into account. The cumulative discrepancy between planned and actual target attainment in the performance period and the dividends paid in the last year of the performance period are taken into account in the calculation. If there is no share price, the value of equity is determined on the basis of the last share transaction in the last twelve months of the performance period. If there was no share transaction in the last twelve months, a fictitious equity value is used. This is derived by applying a fixed EBITDA multiple to the company's business performance in the last full fiscal year.

As of December 31, 2016, there was no provision for the 2012 tranche granted to the Executive Board (2015, including 2011 tranche: €0.1 million). In keeping with the terms of the plan, regular exercise of the 2011 tranche took place in 2016.

LTI Plan for Executive Board members—2011 and 2012 tranches

		2012 tranche	2011 tranche
Grant date	Date	Dec. 18, 2012	Sep. 30, 2011
Performance period	from–to	Jan. 1, 2012 – Dec. 31, 2016	Jan. 1, 2011 – Dec. 31, 2015
Expense (+)/income (–) for the period	in € '000	–94	0
Carrying amount of provision	in € '000	0	0

The 2012 tranche of the Evonik LTI Plan for Executive Board members was vested as of December 31, 2016 but had no intrinsic value as of this date.

(b) Evonik LTI Plan for Executive Board members and other executives—Tranches 2013 through 2016

In view of the stock exchange listing of Evonik Industries AG, the Supervisory Board redesigned the LTI Plan for the period from 2013 so it differs from the 2011 and 2012 tranches. Performance is measured by the absolute performance of Evonik's share price and its performance relative to the MSCI World Chemicals Index^{SM}.

Based on the contractually agreed target amount, which is defined in euros, a number of virtual shares is calculated using the share price at the start of the performance period. This is based on the price in the last 60 trading days before the start of the performance period. The performance period starts on January 1 of the grant year and runs for four years. Since there was no share price at the start of the performance period, as an exception, the virtual shares for the 2013 tranche were calculated from the share price in the first 60 trading days following admission to the stock exchange (April 25, 2013). At the end of the performance period, the starting price of Evonik shares is viewed against the average share price at the end of the performance period. This is compared with the performance of the benchmark index (total shareholder return). If the relative performance is below 70 percentage points, the relative performance factor is deemed to be zero. If the relative performance is above 130 percentage points, the relative performance factor is set at 130.

The payment is calculated by multiplying the relative performance by the number of virtual shares allocated and the average price of Evonik shares at the end of the performance period.

At the end of the performance period, there is an option to extend it once for a further year. Partial exercise at the end of the original performance period is not permitted. The upper limit for these payments is set at 300 percent of the individual target amount.

Since the previous performance periods for the LTI Plan for executives, including the 2012 tranche, were three years, the 2013 tranche for executives was set to allow the first half of the 2013 tranche to be exercised after three years and the second half after four years. As a further incentive for the transition, the payments for this tranche are multiplied by 1.2. As from 2014, a four-year performance period is applied for executives. As of December 31, 2016, there was a provision of €29.7 million (2015: €28.3 million) for the LTI Plans for 2013, 2014, 2015 and 2016.

LTI Plan for Executive Board members—2013, 2014, 2015 and 2016 tranches

		2016 tranche	2015 tranche	2014 tranche	2013 tranche
Grant date	Date	May 18, 2016	Apr. 29, 2015	Apr. 14, 2014	Aug. 14, 2013
Virtual shares granted	No.	139,109	175,787	140,145	153,123
Virtual shares forfeited	No.	–	–	–	51,760
Virtual shares as of Dec. 31, 2016	No.	139,109	175,787	140,145	101,363
Performance period	from–to	Jan. 1, 2016–Dec. 31, 2019	Jan. 1, 2015–Dec. 31, 2018	Jan. 1, 2014–Dec. 31, 2017	Jan. 1, 2013–Dec. 31, 2016
Expense (+)/income (–) for the period	in € '000	677	837	371	64
Carrying amount of provision	in € '000	677	2,662	2,726	2,415

LTI Plan for executives—Tranches 2013, 2014, 2015 and 2016

		2016 tranche	2015 tranche	2014 tranche	2013 tranche
Grant date	Date	May 18, 2016	May 18, 2015	Apr. 11, 2014	Aug. 27, 2013
Virtual shares granted	No.	436,125	535,195	420,598	395,422
Virtual shares forfeited	No.	1,576	9,121	11,753	12,594
Virtual shares exercised	No.	–	–	–	188,884
Virtual shares as of Dec. 31, 2016	No.	434,549	526,074	408,845	193,944
Performance period	from–to	Jan. 1, 2016–Dec. 31, 2019	Jan. 1, 2015–Dec. 31, 2018	Jan. 1, 2014–Dec. 31, 2017	Jan. 1, 2013–Dec. 31, 2016
Expense (+)/income (-) for the period	in € '000	2,115	2,987	1,322	119
Carrying amount of provision	in € '000	2,115	6,831	7,148	5,134

As of December 31, 2016, total provisions for share-based payment amounted to €29.7 million (2015: €28.4 million). In 2016, total expense including expense for share-based payment was €8.4 million (2015: €25.7 million).

10.2 Additional information on financial instruments

Rights of set-off for financial assets and financial liabilities

To enhance the comparability of financial statements as regards the different netting rules for financial instruments under IFRS and US GAAP and inform users of the financial statements of the potential effect of netting arrangements on the company's financial position, IFRS 7 requires disclosure of the gross and net amounts of recognized financial instruments that are set off in the balance sheet. Amounts subject to a legally enforceable master netting arrangement or similar agreement but which are not set off in the balance sheet also have to be disclosed. These include financial instruments that do not fully meet the stringent netting requirements of IAS 32.42 and amounts relating to financial collateral.

Offsetting rights for financial assets

in € million	Netting of financial assets: Gross amount of transactions affected by netting arrangements	Amounts set off in accordance with IAS 32	Amounts recognized for the relevant transactions	Affected by enforceable master netting arrangements or similar arrangements: Receivables that do not fully meet the offsetting criteria	Amounts related to financial collateral	Net amount
December 31, 2016						
Receivables from derivatives	296	–	296	111	–	185
Other financial assets	5	5	–	–	–	–
Trade accounts receivable	559	65	494	–	–	494
	860	**70**	**790**	**111**	**–**	**679**
December 31, 2015						
Receivables from derivatives	83	-	83	53	-	30
Other financial assets	10	8	2	-	-	2
Trade accounts receivable	716	51	665	-	-	665
	809	**59**	**750**	**53**	**-**	**697**

Offsetting rights for financial liabilities

in € million	Netting of financial liabilities: Gross amount of transactions affected by netting arrangements	Amounts set off in accordance with IAS 32	Amounts recognized for the relevant transactions	Affected by enforceable master netting arrangements or similar arrangements: Liabilities that do not fully meet the offsetting criteria	Amounts related to financial collateral	Net amount
December 31, 2016						
Liabilities from derivatives	185	–	185	111	–	74
Other financial liabilities	15	13	2	–	–	2
Trade accounts payable	345	34	311	–	–	311
	545	**47**	**498**	**111**	**–**	**387**
December 31, 2015						
Liabilities from derivatives	144	–	144	53	–	91
Other financial liabilities	6	6	–	–	–	–
Trade accounts payable	386	85	301	–	–	301
	536	**91**	**445**	**53**	**–**	**392**

The amounts disclosed for trade accounts receivable and payable result from credit notes granted and received that were set off against existing receivables or liabilities relating to the same counterparty. There are no master netting arrangements for trade accounts. The master agreements concluded by Evonik with counterparties for derivatives transactions provide for limited offsetting arrangements, especially if one of the contractual parties should become insolvent.

Results of financial instruments by valuation category

The income and expenses, gains and losses from financial instruments reflected in the income statement are allocated to the following IAS 39 valuation categories:

Net result by valuation category 2016

	Net result by valuation category				2016
in € million	Available-for-sale assets	Loans and receivables	Financial instruments held for trading	Liabilities at amortized cost	
Proceeds from disposals	–	−1	–	–	−1
Income from derivatives	–	–	−107	–	−107
Impairment losses/reversals of impairment losses	–	5	–	–	5
Net interest expense	–	4	−31	−47	−74
Income from other investments	1	–	–	–	1
	1	**8**	**−138**	**−47**	**−176**

Net result by valuation category 2015

	Net result by valuation category				2015
in € million	Available-for-sale assets	Loans and receivables	Financial instruments held for trading	Liabilities at amortized cost	
Proceeds from disposals	−3	–	–	–	−3
Income from derivatives	–	–	−55	–	−55
Impairment losses/reversals of impairment losses	−16	−2	–	–	−18
Net interest expense	1	3	−22	−52	−70
Income from other investments	1	–	–	–	1
	−17	**1**	**−77**	**−52**	**−145**

Income from derivatives does not include income from derivative financial instruments for which hedge accounting is applied.

As in 2015, net interest expense did not include any interest income on the impaired portion of financial assets or trade accounts receivable.

Carrying amounts by valuation category and fair values of financial instruments

Financial instruments that fall within the scope of IFRS 7 Financial Instruments: Disclosures are to be disclosed by classes that take into account the characteristics of the financial instruments. At Evonik, the classification is based on the presentation on the balance sheet. The following tables present the carrying amounts of each class broken down to the IAS 39 valuation categories. Assets and liabilities not allocated to any category are shown in a separate column. The total carrying amount per class or balance sheet item is then compared to the fair value.

Carrying amounts and fair values of financial assets as of December 31, 2016

	Carrying amount by valuation category				Dec. 31, 2016	
in € million	Available-for-sale assets	Loans and receivables	Assets held for trading	Not allocated to any category	Carrying amount	Fair value
Financial assets	**122**	**104**	**14**	**290**	**530**	**492**
Other investments[a]	110	–	–	–	110	72
Loans	–	72	–	–	72	72
Securities and similar claims	12	–	–	–	12	12
Receivables from derivatives	–	–	14	285	299	299
Other financial assets	–	32	–	5	37	37
Trade accounts receivable	**–**	**1,661**	**–**	**–**	**1,661**	**1,661**
Cash and cash equivalents	**–**	**4,623**	**–**	**–**	**4,623**	**4,623**
	122	**6,388**	**14**	**290**	**6,814**	**6,776**

[a] The difference between the carrying amount and fair value results from investments measured at cost of acquisition for which no fair value could be determined reliably (€38 million).

Carrying amounts and fair values of financial assets as of December 31, 2015

	Carrying amount by valuation category				Dec. 31, 2015	
in € million	Available-for-sale assets	Loans and receivables	Assets held for trading	Not allocated to any category	Carrying amount	Fair value
Financial assets	**339**	**58**	**24**	**60**	**481**	**462**
Other investments[a]	74	–	–	–	74	55
Loans	–	29	–	–	29	29
Securities and similar claims	265	–	–	–	265	265
Receivables from derivatives	–	–	24	60	84	84
Other financial assets	–	29	–	–	29	29
Trade accounts receivable	**–**	**1,813**	**–**	**–**	**1,813**	**1,813**
Cash and cash equivalents	**–**	**2,368**	**–**	**–**	**2,368**	**2,368**
	339	**4,239**	**24**	**60**	**4,662**	**4,643**

[a] The difference between the carrying amount and fair value results from investments measured at cost of acquisition for which no fair value could be determined reliably (€19 million).

Carrying amounts and fair values of financial liabilities as of December 31, 2016

in € million	Carrying amount by valuation category: Liabilities held for trading	Liabilities at amortized cost	Not allocated to any category	Dec. 31, 2016: Carrying amount	Fair value
Financial liabilities	**14**	**3,546**	**175**	**3,735**	**3,737**
Bonds	–	3,127	–	3,127	3,126
Liabilities to banks	–	375	–	375	378
Loans from non-banks	–	16	–	16	16
Liabilities from derivatives	14	–	174	188	188
Other financial liabilities	–	28	1	29	29
Trade accounts payable	**–**	**1,212**	**–**	**1,212**	**1,212**
	14	**4,758**	**175**	**4,947**	**4,949**

Carrying amounts and fair values of financial liabilities as of December 31, 2015

in € million	Carrying amount by valuation category: Liabilities held for trading	Liabilities at amortized cost	Not allocated to any category	Dec. 31, 2015: Carrying amount	Fair value
Financial liabilities	**19**	**1,554**	**133**	**1,706**	**1,719**
Bonds	-	1,241	-	1,241	1,258
Liabilities to banks	-	282	-	282	278
Loans from non-banks	-	14	-	14	14
Liabilities from derivatives	19	-	132	151	151
Other financial liabilities	-	17	1	18	18
Trade accounts payable	**-**	**1,090**	**-**	**1,090**	**1,090**
	19	**2,644**	**133**	**2,796**	**2,809**

That part of derivative financial instruments for which hedge accounting is applied is not allocated to any of the categories, nor are receivables and liabilities from finance leases.

Financial instruments recognized at fair value

The fair value determination is based on the three-level hierarchy stipulated by IFRS 13 Fair Value Measurement, which is outlined in section 3.7. The following table shows the financial instruments that are measured at fair value on a recurring basis after initial recognition on the balance sheet:

Financial instruments recognized at fair value as of December 31, 2016

	Fair value based on			Dec. 31, 2016
	Publicly quoted market prices	Directly observable market-related prices	Individual valuation parameters	
in € million	(Level 1)	(Level 2)	(Level 3)	
Other investments	72	–	–	72
Securities and similar claims	12	–	–	12
Receivables from derivatives	–	299	–	299
Liabilities from derivatives	–	–188	–	–188

Financial instruments recognized at fair value as of December 31, 2015

	Fair value based on			Dec. 31, 2015
	Publicly quoted market prices	Directly observable market-related prices	Individual valuation parameters	
in € million	(Level 1)	(Level 2)	(Level 3)	
Other investments	55	–	–	55
Securities and similar claims	265	–	–	265
Receivables from derivatives	–	84	–	84
Liabilities from derivatives	–	–151	–	–151

The financial instruments allocated to Level 1 are recognized at their present stock market price. They comprise all securities and one equity investment. As of the present reporting date, all derivatives are allocated to Level 2. They comprise currency, interest rate and commodity derivatives whose fair value was determined with the aid of discounted cash flow or option pricing models on the basis of the exchange rates at the European Central Bank, observed interest rate structure curves, FX volatilities, observed commodity prices, and observed credit default premiums.

No derivatives were reclassified to other levels in the fair value hierarchy in fiscal 2016.

Fair value of financial instruments recognized at amortized cost

The fair value of bonds is their directly observable stock market price on the reporting date. For loans, other financial assets, liabilities to banks, loans from non-banks, and other financial liabilities the fair value is determined as the present value of the expected future cash inflows or outflows and is therefore allocated to Level 2. Discounting is based on the interest rate for the respective maturity on the reporting date, taking the creditworthiness of the counterparties into account. Since the majority of other financial receivables and liabilities and trade accounts receivable and payable are current, their fair values—like the fair value of cash and cash equivalents—correspond to their carrying amounts.

The other investments that are recognized on the balance sheet at amortized cost comprise investments in equity instruments for which there is no quoted price in an active market and whose fair values cannot be determined reliably in accordance with one of the three levels of the fair value hierarchy. There is no intention of selling these investments.

Notional value of derivatives

The notional value of interest rate swaps is the principal on which the swap agreement is based, while the notional value of the cross-currency interest rate swaps, forward exchange contracts, currency options and currency swaps is the hedged foreign exchange amount converted into euros. The notional value of the commodity derivatives is the hedged procurement cost translated into euros.

Notional value of derivative financial instruments

	Dec. 31, 2016			Dec. 31, 2015		
in € million	**Total**	thereof current	thereof non-current	**Total**	thereof current	thereof non-current
Cross-currency interest rate swaps	680	40	640	678	110	568
Forward exchange contracts, currency options and currency swaps	8,700	6,708	1,992	5,190	4,842	348
Commodity derivatives	95	57	38	111	15	96
	9,475	**6,805**	**2,670**	**5,979**	**4,967**	**1,012**

Hedge accounting

Hedge accounting was applied for the following major transactions in 2016:

(a) Cash flow hedges

As of the balance sheet date, forward exchange contracts and currency swaps were used to hedge forecast foreign currency sales amounting to around €1,940 million (2015: around €1,950 million) up to March 2018 against exchange rate movements. As in the previous year, these hedging instruments had a negative fair value of €56 million. At year-end 2016, losses of €49 million (2015: losses of €56 million) were recognized in the hedge reserve.

Evonik hedges the currency risk arising from intragroup foreign currency loans against the functional currency of the relevant Group company through cross-currency interest rate swaps, forward exchange contracts and currency swaps. The notional value of these cash flow hedges on the reporting date was €1,122 million (2015: €1,413 million). The designated hedges had a fair value of €0 million (2015: €17 million). The hedge reserve for this hedge comprises income of €37 million (2015: €18 million).

Hedging of the foreign exchange risk of acquisition projects is divided into the hedging of parts of the purchase price to be paid on the one hand and of intragroup financing in connection with the acquisition on the other. The division into the investment and financing components is derived from the contractual structure of the respective acquisition. Forward exchange contracts and currency options are concluded to hedge the currency-induced risk.

To hedge the acquisition of the Air Products specialty additives business, forward exchange contracts and USD currency options were concluded until the transaction was closed in January 2017. The hedging of the investment component had a notional value of €984 million and a fair value of €108 million. The instruments acquired to hedge the financing component had a notional value of €3,227 million and a fair value of €64 million. Up to the reporting date, income of €106 million had been allocated to the hedge reserve for the investment component, while expenses of €16 million had been allocated for the financing component.

To hedge the planned acquisition of Huber's silica business, forward exchange contracts and USD currency options were concluded up to January 2018. The hedging of the investment component had a notional value of €236 million and a fair value of €10 million. The instruments acquired to hedge the financing component had a notional value of €330 million and a fair value of €1 million. Up to the reporting date, income of €1 million for the investment component and €0 million for the financing component had been allocated to the hedge reserve.

Between December 2011 and December 2012 Evonik successively purchased a total of ten forward starting payer swaps with a notional value of €50 million each to hedge the interest rate risk of a highly probable refinancing transaction totaling €500 million forecast for 2013. In this way, a 5-year swap rate of 1.6 percent was locked in for a period of five years starting from June 2013. The expected refinancing took place in spring 2013 through the issue of a new bond by Evonik Industries AG. The hedge was terminated when the financing terms were fixed. The realized hedging expense of €15 million will be released to net interest expense over the original hedged financing period using the effective interest method. At year-end 2016, a negative fair value of €5 million was recognized in the hedge reserve for this transaction (2015: negative fair value of €8 million).

As of year-end 2016, commodity swaps with a negative fair value of €3 million (2015: negative fair value of €21 million) were used to hedge forecast purchases of raw materials against price fluctuations up to 2019. A negative fair value of €1 million was recognized in the hedge reserve for these swaps in 2016 (2015: negative fair value of €20 million).

The effectiveness of the hedge relations was determined using the dollar offset method, critical term match, the hypothetical derivatives method, regression analysis and sensitivity analyses. When hedging the currency risk of highly probable forecast transactions, in general only the spot components of forward exchange contracts used to hedge currency risks are designated as hedges. In 2016, as in 2015, the valuation of cash flow hedges did not contain any ineffective portion.

(b) Hedge of a net investment

Since March 2010, the investment in UK subsidiaries has been hedged against foreign currency risks on a rolling basis. The hedging contracts normally have terms of a few months. As of December 31, 2016, the notional value of the hedges was £65 million, as in the previous year. At year-end 2016, the outstanding hedging contracts have a positive fair value of €1 million (2015: €2 million). Between the start of hedging in March 2010 and year-end 2016, total expenses of €6 million (2015: €19 million) were assigned to the hedge reserve.

In July 2015, the investment in a subsidiary in Switzerland was hedged against foreign currency risks. The hedging contracts had a notional value of CHF 69 million. They were de-designated in April 2016. Between the start of this hedging transaction and the reporting date, income of €3 million was allocated to the hedge reserve, including €1 million in 2016.

Notes on financial risk management

As an international company, Evonik is exposed to financial risks in the normal course of business. A major objective of corporate policy is to minimize the impact of market, liquidity and default risks on both the value of the company and profitability in order to check adverse fluctuations in cash flows and earnings without forgoing the opportunity to benefit from positive market trends. For this purpose a systematic financial and risk management system has been established. Interest rate and exchange rate risks are managed centrally by the Finance Division of Evonik Industries AG, while commodity risks are managed by the segments in accordance with established corporate policies.

The financial derivatives contracts used by Evonik are entered into exclusively in connection with a corresponding underlying transaction (hedged item) relating to normal operating business, which provides a risk profile directly opposite to that of the hedge. The instruments used are customary products found on the market. For the management of interest rates and exchange rates, they comprise currency swaps, forward exchange contracts, cross-currency interest rate swaps and interest rate swaps. Commodity swaps are used to hedge the risk of fluctuations in the price of coal, natural gas, electricity and petrochemical feedstocks. The procurement of emission allowances to meet obligations pursuant to Section 6 of the German Emissions Trading Act (TEHG) can be optimized through use of EUA-CER swaps and EUA or CER futures.

(a) Market risk

Market risk can basically be subdivided into exchange rate, interest rate and commodity risks. The management of these risks is explained below.

Exchange rate risks relate to both the sourcing of raw materials and the sale of end-products in currencies other than the functional currency of the company concerned. One aim of currency risk management is to protect the company's operating business from fluctuations in earnings and cash flows resulting from changes in exchange rates. The opposite effects arising from procurement and sales activities are taken into account. Another objective of currency management is to eliminate the currency risk relating to financing transactions that are not denominated in the functional currency of the respective Group companies.

In the **management of currency risks,** Evonik distinguishes between risk positions recognized on the balance sheet and off-balance-sheet (i. e. pending or forecast) exposures. For currency hedging of current balance sheet exposure Evonik uses a portfolio approach where the hedged items and hedging instruments are accounted for separately. By contrast, micro hedging is applied for non-current loans and exposures arising from firmly agreed or forecast transactions. Hedging instrument and related hedged item are then designated in a formal hedge relationship (cash flow hedge accounting). This synchronizes the earnings impact of the hedging instruments with hedged items that can only be recognized on the balance sheet at a later date. In the case of hedges on loans, it allows the distribution of the hedging costs on a straight-line basis over the term of hedge relationship.

In the **portfolio approach,** the net risk position in each foreign currency is determined for each Group company. The net risk positions are then bundled through intragroup hedging and where appropriate netted at Group level. The remaining net positions are then hedged externally via forward exchange contracts and currency swaps. This currency management is carried out separately for operational risk positions (mainly trade accounts receivable and payable in foreign currencies) and risk positions arising from current financing activities such as cash pooling, bank deposits and cash and cash equivalents.

Gross income and expenses from the currency translation of operating monetary assets and liabilities are netted; so are gross income and expenses from the corresponding operational currency hedging. The net result from the translation of operating monetary assets and liabilities and the net result of operational currency hedging calculated in this way are recognized in other operating income or other operating expenses as appropriate. Gross income and expenses from the currency translation of financing-related risk positions and financing-related currency hedging are netted analogously. The resulting net results for currency translation and currency hedging are recognized in other financial income/expense. The net presentation of the results reflects both the management of risk positions in the Evonik Group and the economic substance.

Due to the application of hedge accounting, **micro-hedging** of foreign currency balance sheet exposure (for example, financing-related currency hedging of non-current loans through cross-currency interest rate swaps) and the hedging of planned or firmly agreed foreign currency cash flows (for example, hedging of forecast sales revenues) are only reflected in the net result from operational or financing-related currency hedging with any ineffective portion or any forward components or option premiums that are excluded from the hedge accounting relationship. By contrast, the effective results of micro-hedges reflected in cash flow hedge accounting are recognized in accumulated other comprehensive income until the hedged transaction is realized. Subsequently, they are transferred to sales if they were used as a sales hedge, to inventories or cost of sales if they were used to hedge currency exposure relating to procurement, or to the initial carrying balance of property, plant and equipment if the purpose was to hedge the foreign currency risk relating to the procurement of assets of this type. In the case of currency hedges for loans for which cash flow hedge accounting is applied, the effective portion of the hedge is transferred from accumulated other comprehensive income to offset the net result of currency translation of monetary assets and liabilities triggered by the hedged item. See Note 7.7(g).

The aim of **interest rate management** is to protect net income from the negative effects of fluctuations in market interest rates. Interest rate risk is managed by using derivative and non-derivative financial instruments. The aim is to achieve an appropriate ratio of fixed rates (with interest rates fixed for more than one year) and variable rates (terms of less than one year), taking costs and risks into account. At year-end 2016, 93 percent (2015: 94 percent) of non-derivative financial instruments were fixed-interest contracts. Taking financial derivatives into account, the proportion of fixed-interest financial instruments declines to 79 percent.

Several scenario analyses were carried out to **measure exchange rate and interest rate risk** as of December 31, 2016.

The most important currencies for Evonik are the US dollar (USD) and the Chinese renminbi yuan (CNY/CNH). CNH is the technical market designation for renminbi that are tradable and deliverable outside the territory of China. A sensitivity analysis was performed for these currencies by modeling a change of 5 percent and 10 percent in the exchange rate relative to all other currencies to simulate the possible loss of value of derivative and non-derivative financial instruments in the event of the appreciation or depreciation of these currencies. The percentage standard deviations of changes in exchange rates versus the euro in 2016 was 4.0 percent for the USD (2015: 0.7 percent), and 3.6 percent for the CNY/CNH (2015: 0.7 percent). The results of these scenarios were as follows:

USD sensitivity analysis

	Dec. 31, 2016		Dec. 31, 2015	
in € million	Impact on income	Impact on equity	Impact on income	Impact on equity
+5%	–1	–60	–1	–64
–5%	1	60	1	64
+10%	–2	–120	–1	–127
–10%	2	120	1	127

CNY/CNH sensitivity analysis

	Dec. 31, 2016		Dec. 31, 2015	
in € million	Impact on income	Impact on equity	Impact on income	Impact on equity
+5%	–1	–10	–	–11
–5%	1	10	–	11
+10%	–1	–19	–	–23
–10%	1	19	–	23

Several scenarios were also simulated for interest rates. These analyzed shifts of 50, 100 and 150 basis points in EUR interest rates or the EUR interest rate curve to simulate the possible loss of value of derivative and non-derivative financial instruments. The scenarios are summarized in the table:

EUR interest rate sensitivity analysis

	Dec. 31, 2016		Dec. 31, 2015	
in € million	Impact on income	Impact on equity	Impact on income	Impact on equity
+50 basis points	1	3	1	–
–50 basis points	–1	–3	–1	–
+100 basis points	3	5	1	–
–100 basis points	–3	–5	–1	–
+150 basis points	4	8	2	–
–150 basis points	–4	–8	–2	–

Commodity risks result from changes in the market prices for the purchase and sale of raw materials. Raw materials were purchased principally to meet in-house demand. Other factors of importance for Evonik's risk position are the availability and price of relevant raw materials, starting products and intermediates. In particular, raw material prices of significance to the Evonik Group are dependent on exchange rates and the price of crude oil. Commodity management, which is the responsibility of the segments, involves identifying procurement risks and defining effective measures to minimize them. For example, price escalation clauses and swaps are used to reduce price volatility. Pricing and procurement risks are reduced through worldwide procurement and optimized processes to ensure immediate sourcing of additional raw material requirements. Further, use of alternative raw materials is examined for various production processes and Evonik is working on the development of alternative production technologies.

Financial derivatives were also used on a small scale to hedge procurement price risks. If the price of natural gas had been 10 percent higher or lower, the impact of the fluctuation in the value of the commodity derivatives on the hedge reserve would have been +€2 million or –€2 million at year-end 2016—as in 2015. If the price of naphtha-based petrochemical feedstocks had been 10 percent higher or lower, the impact of the fluctuation in the value of the commodity derivatives on the hedge reserve would have been +€7 million or –€7 million at year-end 2016. In both cases, the impact on income would have been negligible. Similarly, there was no impact on income in the previous year.

(b) Liquidity risk

Liquidity risk is managed through business planning to ensure that the funds required to finance the current operating business and current and future investments in all Group companies are available at the right time and in the right currency at optimum cost. Liquidity requirements for business operations, investments and other financial activities are derived from a financing status and liquidity planning, which form part of liquidity risk management. Liquidity is pooled in a central cash management pool where this makes economic sense and is legally permissible. Central liquidity risk management facilitates low-cost borrowing and advantageous offsetting of financial requirements.

Evonik had cash and cash equivalents of €4,623 million as of December 31, 2016. Around €3.5 billion of this amount was used to settle the purchase price for the Air Products specialty additives business at the start of January 2017. Alongside the remaining cash and cash equivalents and current securities, Evonik's central source of liquidity is still a €1.75 billion revolving credit facility from a syndicate of 27 national and international banks. This credit facility is divided in two tranches of €875 million each, with terms running until September 2018 and September 2020. It was not drawn at any time in 2016 and does not contain any covenants requiring Evonik to meet specific financial ratios.

Further, as of December 31, 2016, various unused credit lines totaling €277 million were available to meet local requirements, especially in the Asia-Pacific region.

The table shows the remaining maturity of the non-derivative financial instruments based on the agreed dates for interest and redemption payments.

Remaining maturity of non-derivative financial instruments 2016

	Payments due in				Dec. 31, 2016
in € million	up to 1 year	more than 1 and up to 3 years	more than 3 and up to 5 years	more than 5 years	
Financial liabilities	**338**	**104**	**1,234**	**2,075**	**3,751**
Bonds	23	47	1,188	2,050	3,308
Liabilities to banks	280	47	46	25	398
Loans from non-banks	16	–	–	–	16
Other financial liabilities	19	10	–	–	29
Trade accounts payable	**1,212**	**–**	**–**	**–**	**1,212**

Remaining maturity of non-derivative financial instruments 2015

	Payments due in				Dec. 31, 2015
in € million	up to 1 year	more than 1 and up to 3 years	more than 3 and up to 5 years	more than 5 years	
Financial liabilities	**211**	**89**	**581**	**796**	**1,677**
Bonds	3	34	534	772	1,343
Liabilities to banks	179	52	47	24	302
Loans from non-banks	14	–	–	–	14
Other financial liabilities	15	3	–	–	18
Trade accounts payable	**1,086**	**4**	**–**	**–**	**1,090**

The Group met all payment terms agreed for its financial liabilities.

The breakdown of the sum of interest and redemption payments by maturity in the following table relates to derivative financial instruments with positive and negative fair values. The table shows the net value of cash inflows and outflows. Since netting was not agreed for forward exchange contracts, currency swaps and cross-currency interest rate swaps, they are presented as gross amounts:

Remaining maturity of derivative financial instruments 2016

in € million	Payments due in: up to 1 year	more than 1 and up to 3 years	more than 3 years	Dec. 31, 2016
Receivables from derivatives	**1,973**	**205**	**–15**	**2,163**
Cross-currency interest rate swaps	–4	–8	–15	–27
Cash inflows	5	34	136	175
Cash outflows	–9	–42	–151	–202
Forward exchange contracts, currency options and currency swaps	1,974	213	–	2,187
Cash inflows	4,293	725	–	5,018
Cash outflows	–2,319	–512	–	–2,831
Commodity derivatives	3	–	–	3
Liabilities from derivatives	**–125**	**–138**	**–77**	**–340**
Cross-currency interest rate swaps	–22	–57	–	–79
Cash inflows	56	339	–	395
Cash outflows	–78	–396	–	–474
Forward exchange contracts, currency options and currency swaps	–103	–76	–77	–256
Cash inflows	2,338	671	413	3,422
Cash outflows	–2,441	–747	–490	–3,678
Commodity derivatives	–	–5	–	–5

Remaining maturity of derivative financial instruments 2015

in € million	Payments due in: up to 1 year	more than 1 and up to 3 years	more than 3 years	Dec. 31, 2015
Receivables from derivatives	**50**	**4**	**–**	**54**
Cross-currency interest rate swaps	13	4	–	17
Cash inflows	123	41	9	173
Cash outflows	–110	–37	–9	–156
Forward exchange contracts, currency options and currency swaps	37	–	–	37
Cash inflows	2,118	137	–	2,255
Cash outflows	–2,081	–137	–	–2,218
Commodity derivatives	–	–	–	–
Liabilities from derivatives	**–122**	**–43**	**–57**	**–222**
Cross-currency interest rate swaps	–12	–27	–53	–92
Cash inflows	23	57	314	394
Cash outflows	–35	–84	–367	–486
Forward exchange contracts, currency options and currency swaps	–102	–7	–	–109
Cash inflows	2,690	202	1	2,893
Cash outflows	–2,792	–209	–1	–3,002
Commodity derivatives	–8	–9	–4	–21

Receivables from cross-currency interest rate swaps comprise transactions with negative net cash flows resulting from positive inflows in euros and negative outflows in foreign currencies. In each maturity bracket, the foreign currency outflows translated into euros exceeded the actual euro inflows. To calculate the present value, the foreign currency side of these swaps is discounted using a yield curve for the foreign currency while the euro side is discounted using a euro yield curve. Since interest rates in the foreign currencies are higher, discounting results in a positive fair value and thus a positive overall carrying amount for the instruments despite the negative net cash flows. This phenomenon is encountered in particular with the Chinese renminbi yuan (CNH) and the Brazilian real (BRL).

(c) Risk of default

Credit risk management divides default risks into three categories, which are analyzed separately on the basis of their specific features. The three categories are debtor and creditor risk, country risk, and the risk of default by financial counterparties.

The debtor and creditor default risks are analyzed and monitored continuously with the aid of an internal limit system. Political risk (country risk) is also taken into account for export orders so that the overall risk assessment takes account of both political and economic risk factors. On the basis of this analysis, a maximum risk exposure limit is set for the contracting party. The credit standing of contracting parties is updated constantly via ratings or scoring processes.

In addition, a specific limit is set for financial counterparties for each type of risk (money market, capital market and derivatives). Maximum limits for each contracting party are set on the basis of the creditworthiness analyses. These are predominantly based on the ratings issued by international rating agencies and our own internal credit analysis. In addition, the development of the price of credit default swaps and equity prices (where available) is analyzed. Country limits are set for the money and capital markets to ensure diversification of country risks.

Credit management also covers derivative financial instruments, where the risk of default is equivalent to the positive fair value. This risk is minimized by setting high standards for the creditworthiness of counterparties. Only common instruments found on the market with sufficient liquidity are used. Consequently, no material risk of default is expected in this field. As for non-derivative financial instruments, there is also a default risk amounting to the positive fair value. This can be minimized by regular creditworthiness reviews. We do not anticipate any material risk of default here either.

Owing to the diversity of business and the large number of customers, there were no significant cluster risks.

Further, there is a default risk relating to the granting of financial guarantees. As of the reporting date, guarantees with a total nominal value of €44 million (2015: €42 million) had been granted. This is also the maximum default risk, see Note 10.3. There is no indication that these financial guarantees will result in a loss.

10.3 Related parties

In addition to the subsidiaries included in the consolidated financial statements, the Group maintains relationships with related parties.

Related parties with which the Group maintains business relationships included RAG-Stiftung, Essen (Germany), due to its controlling interest, and Gabriel Acquisitions GmbH (Gabriel Acquisitions), Gadebusch (Germany), as it could exercise a significant influence up to May 18, 2016 through the appointment of representatives to the Supervisory Board of Evonik Industries AG. Further related parties comprise fellow subsidiaries of Evonik owned by RAG-Stiftung, affiliated companies of Gabriel Acquisitions GmbH, and associates and joint ventures of Evonik, which are recognized at equity.

Business relations with related parties

	RAG-Stiftung		Fellow subsidiaries		Joint ventures		Associates	
in € million	**2016**	2015	**2016**	2015	**2016**	2015	**2016**	2015
Goods and services supplied	–	–	2	2	27	22	4	4
Goods and services received	–	–	–13	–57	–	–	–1	–3
Other income	–	–	–	143	–	–	9	4
Receivables as of December 31	–	–	–	1	2	6	–	1
Liabilities as of December 31	–	–	–	–	–	–	–	–1
Contingent liabilities as of December 31	–	–	–	–	–44	–44	–	–1

Prior-year figures restated.

The dividend for fiscal 2015 was paid in the second quarter of 2016, following the adoption of the resolution by the Annual Shareholders' Meeting on May 18, 2016. RAG-Stiftung, Essen (Germany) received €364 million and The Gabriel Finance Limited Partnership, St. Helier (Jersey), a subsidiary of Gabriel Acquisitions GmbH, received €23 million.

In 2016, Evonik received dividends of €9 million (2015: €18 million), mainly from associates.

The other income from fellow subsidiaries comprised the divestment of the 10.3 percent shareholding in Vivawest to RAG Aktiengesellschaft.

The contingent liabilities recognized as of December 31, 2016, comprise €44 million relating to a joint venture and result mainly from a guarantee of €38 million granted to secure a loan for the joint venture Saudi Acrylic Polymers Company, Ltd., Jubail (Saudi Arabia). In addition, two guarantees totaling €6 million were provided as collateral for a facility for hedging transactions at the joint venture CyPlus Idesa, S.A.P.I. de C.V., Mexico City (Mexico).

The Federal Republic of Germany and the federal states of North Rhine-Westphalia and the Saarland are also classified as related parties as they are able to exercise a significant influence on RAG-Stiftung through their membership of the Board of Trustees of RAG-Stiftung.

Transactions effected between Evonik and these federal and state governments and their subsidiaries or joint ventures in the reporting period comprised generally available government grants and subsidies, and investments in their securities. Further, customary business relationships were maintained with the Deutsche Bahn Group, and the Duisport Group.

Individuals defined as related parties include members of the management who are directly or indirectly responsible for corporate planning, management and oversight, and members of their families. At Evonik, these parties comprise members of the Executive Board and Supervisory Board of Evonik Industries AG, members of the Executive Board and Board of Trustees of RAG-Stiftung, and other management members who hold key positions in the Group.

Remuneration paid to related parties

	Executive Board of Evonik Industries AG		Supervisory Board of Evonik Industries AG		Other management members	
€ '000	**2016**	2015	**2016**	2015	**2016**	2015
Short-term remuneration	9,194	10,101	3,239	2,818	14,789	12,982
Share-based payment	1,881	4,753	–	–	1,446	2,322
Current service cost for pension and other post-employment benefits	1,116	2,261	–	–	4,169	933
Termination benefits	–	2,380	–	–	–	–

Short-term remuneration comprises both amounts not related to performance and short-term performance-related payments.

As of December 31, 2016, there were provisions of €4,269 thousand (2015: €6,688 thousand) for short-term performance-related remuneration of members of the Executive Board and €9,634 thousand (2015: €9,160 thousand) for other management members.

At year-end 2016, provisions for share-based payment amounted to €6,231 thousand (2015: €6,624 thousand) for the Executive Board, and €3,282 thousand (2015: €2,408 thousand) for other management members.

The information on share-based payment relates to expenses for fiscal 2016 for the LTI tranches 2011 through 2016 for the Executive Board and LTI tranches 2013 through 2016 for other management members.

The present value of pension obligations (defined benefit obligations) was €33,973 thousand (2015: €25,799 thousand) for the Executive Board, and €24,568 thousand (2015: €17,631 thousand) for other members of the management.

Further, the employee representatives elected to the Supervisory Board of Evonik Industries AG continued to receive the regular salary agreed in their employment contract. The level of their salary provided appropriate remuneration for the exercise of their functions and tasks in the company.

In 2016, business relations with the Evonik Group amounting to €5 million (2015: €4 million) were maintained by one member of the Board of Trustees of RAG-Stiftung through companies attributable to this person. This amount principally comprised goods and services supplied. The liabilities were less than €1 million on the reporting date.

Apart from the relationships stated above, Evonik did not have any other significant business relationships with related parties.

10.4 Contingent liabilities, contingent receivables and other financial commitments

Contingent liabilities mainly comprise guarantee and warranty obligations totaling €68 million (2015: €70 million). They include a guarantee of €44 million in favor of a joint venture, see Note 10.3, and indemnity obligations of €10 million in connection with divestments, which expire in the period up to December 31, 2017.

Furthermore, following completion of administrative proceedings outside Germany, it is not improbable that individual customers could file claims for compensation. Since the probability is considered to be low, Evonik is of the opinion that the risk is in the low double-digit million euro range.

There were no contingent receivables as of December 31, 2016.

Other financial commitments are outlined below.

As a lessee, Evonik is mainly party to operating leases for land and buildings, plant and machinery, and office furniture and equipment. The table shows the nominal value of obligations from future minimum lease payments for leased assets with the following payment terms:

Maturity structure of future minimum lease payments (lessee; operating leases)

in € million	2016	2015
Due within 1 year	98	92
Due in more than 1 and up to 5 years	236	218
Due in more than 5 years	182	212
	516	**522**

Prior-year figures restated.

Total payments of €107 million (2015: €99 million) were recognized as expense for operating leases in the reporting period. As in the previous year, the entire amount related to minimum lease payments. No contingent rental payments were made.

10.5 Other agreements between managers and third parties

In connection with the acquisition of 25.01 percent of the shares in Evonik Industries AG by Gabriel Acquisitions in 2008, selected managers at Evonik were granted a right to participate indirectly in Evonik's success. To this end, the managers purchased, at market price, limited partnership shares in the partnership Angel MEP GmbH & Co. KG, Frankfurt am Main (Germany), which had a stake in Evonik Industries AG, jointly with Gabriel Holding through three intermediate companies (Gabriel Investments, Gabriel Acquisitions, and The Gabriel Finance Limited Partnership). At the end of the previous reporting period, on December 31, 2015, this stake was 4.24 percent, so the managers taking part in the program had an indirect stake of 0.06 percent in Evonik Industries AG. Gabriel Acquisitions ended its investment in Evonik in 2016, so at year-end 2016 Angel MEP GmbH & Co. KG no longer had a direct or indirect investment in Evonik Industries AG.

Since the limited partners paid the fair value of the shares when they acquired them, the fair value of the equity instruments allocated in return was zero. For this reason, no expense had to be recognized at any time, either in the event of an exit or if a manager left the company.

Evonik did not make payments to the eligible managers under this program at any time.

10.6 Events after the reporting date

On January 3, 2017, Evonik acquired the Air Products specialty additives business. The acquisition comprised asset deals, and the acquisition of all shares in six companies and 50 percent of the shares in one further company (share deals). The specialty additives business, which has around 1,100 employees at 11 production and development locations, will be integrated into the Nutrition & Care and Resource Efficiency segments.

The business acquired and Evonik's existing specialty additives business are a good fit, both regionally and in terms of their product ranges. In the core markets for coating and adhesive additives, high-quality additives for polyurethane foam, and specialty surfactants for industrial cleaners they target the same customers, but with different and complementary products. The regional focus of the Air Products business is North America and Asia, while Evonik is mainly active on the European market. The acquisition mainly strengthens Evonik's position on the North American market, improving its ability to serve the increasingly global operations of its customers in the future. Like Evonik, the Air Products specialty additives business centers on a business model characterized among other things by close collaboration with customers in research and development.

Provisional purchase price allocation for the specialty additives business as of the acquisition date

in € million	Fair value
Intangible assets	700
Property, plant and equipment	290
Investments recognized at equity	3
Non-current assets	**993**
Inventories	368
Trade accounts receivable	135
Cash and cash equivalents	10
Other current assets	12
Current assets	**525**
Total assets	**1,518**
Provisions for pensions and other post-employment benefits	11
Deferred taxes	86
Non-current liabilities	**97**
Other provisions	8
Trade accounts payable	54
Current liabilities	**62**
Total liabilities	**159**
Provisional net assets	**1,359**
Provisional goodwill	2,167
Provisional purchase price pursuant to IFRS 3	**3,526**

The purchase price allocation for the specialty additives business has not yet been completed. Consequently, there will be changes to the allocation of the purchase price among the assets and liabilities acquired. Further, changes in the purchase price could result from finalization of the agreed purchase price adjustments, which mainly relate to net working capital, cash and cash equivalents, and liabilities as of the acquisition date.

The purchase price, which was agreed in US dollars, was paid out of cash and cash equivalents, including the proceeds of the bond issue in September 2016. The portion of currency hedging of the purchase price that can be allocated to the assets acquired reduced the purchase price by €115 million.

The provisional calculation of goodwill mainly comprises the expected future benefits of assets that were not individually identifiable or for which recognition is not permitted. These include cost synergies resulting from optimization of procurement, production, logistics, marketing, sales and administration, and sales synergies due to joint innovation, extension of the customer base and product portfolios, and improved access to new markets. In addition, positive tax effects will result from the customary write-downs in connection with the asset deals.

The breakdown of the costs relating to the acquisition of the specialty additives business included in adjustments is as follows:

Costs relating to the acquisition of the specialty additives business

in € million	
Acquisition costs (other operating expenses)	27
Cost of preparing integration (other operating expenses)	11
Financing costs (interest expense)	5
Currency hedging and financing costs (other financial income/expense)	24
	67

Bank charges of €4 million were accrued in connection with the issuance of bonds. These are included in interest expense on a pro rata basis by applying the effective interest method over the tenor of each of the bonds.

Evonik and Air Products concluded further agreements alongside the acquisition of the specialty additives business. These include a service agreement for a defined period. During this time Air Products will provide services such as IT, finance, accounting and taxes, which will be billed monthly. Supply and leasing agreements, and a rental agreement have also been concluded.

With reference to IFRS 3.B66, further disclosures on the acquisition of the specialty additives business cannot be made because the necessary information will only be determined in the course of the purchase price allocation. This applies in particular to information on the tax deductibility of goodwill.

11. Disclosures in compliance with German legislation

11.1 Information on shareholdings pursuant to Section 313 Paragraph 2 of the German Commercial Code (HGB)

The Group's shareholdings are listed in Note 5.1. The list indicates which companies have made use of the provisions in Sections 264 Paragraph 3 and 264b of the German Commercial Code (HGB) on exemption from disclosure of annual financial statements and the preparation of notes to their financial statements and a management report.

11.2 Personnel expense and number of employees pursuant to Section 314 Paragraph 1 No. 4 of the German Commercial Code (HGB)

Personnel expense

in € million	2016	2015
Wages and salaries	2,498	2,520
Social security contributions	377	370
Pension expenses	205	209
Other personnel expense	48	22
	3,128	**3,121**

Wages and salaries also include expenses related to restructuring.

The net interest expense for pension provisions is shown in the financial result, see Note 6.6.

The table shows the annual average headcount for the continuing operations:

Headcount (annual average)

No. of employees	2016	2015
Nutrition & Care	7,443	6,984
Resource Efficiency	8,787	8,240
Performance Materials	4,387	4,322
Services	12,769	12,852
Corporate, other operations	519	861
	33,905	**33,259**

The companies included in the consolidated financial statements on a pro rata basis do not have any employees.

11.3 Remuneration of the Executive Board and Supervisory Board pursuant to Section 314 Paragraph 1 No. 6 of the German Commercial Code (HGB)

Remuneration paid to the members of the Executive Board of Evonik Industries AG for their work in 2016 amounted to €12,167 thousand (2015: €15,608 thousand, including one member who left the Executive Board). The figure for 2016 includes bonus payments of €242 thousand for the previous year, for which no provision was established in 2015.

Further details, including an individual breakdown of remuneration, can be found in the remuneration report in the combined management report.

Total remuneration of former members of the Executive Board and their surviving dependents was €1,722 thousand in 2016 (2015: €2,729 thousand).

As of the balance sheet date, the present value of pension obligations (defined benefit obligations) for former members of the Executive Board and their surviving dependents amounted to €55,220 thousand (2015: €50,951 thousand).

The remuneration of the Supervisory Board for 2016 totaled €3,239 thousand (2015: €2,818 thousand).

11.4 Declaration on the German Corporate Governance Code

The Executive Board and Supervisory Board of Evonik Industries AG submitted the declaration required by Section 161 of the German Stock Corporation Act (AktG) in December 2016 and it has been made permanently available to the public on the company's website.

11.5 Auditor's fees pursuant to Section 314 Paragraph 1 No. 9 of the German Commercial Code (HGB)

The auditor for the consolidated financial statements of the Evonik Group was PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft (PwC), Düsseldorf (Germany).

The fees for the auditing of financial statements by the PwC Group include expenses for the audit of the consolidated financial statements and of the separate annual financial statements of Evonik Industries AG and its German and foreign subsidiaries. Further, from fiscal 2016 the expenses for audit reviews of interim financial statements are recognized in auditing of financial statements. In the past, they were reported as other audit-related services. The prior-year figures have been restated where applicable.

The other audit-related services comprise audit-related services other than auditing of financial statements. The increase in other services was mainly due to project-related consultancy services.

Auditor's fees

	Germany		Other countries		Total fees	
in € million	**2016**	2015	**2016**	2015	**2016**	2015
Auditing of financial statements	6.1	5.1	4.7	5.2	10.8	10.3
Other audit-related services	0.3	0.3	–	0.1	0.3	0.4
Tax consultation services	–	–	0.1	0.2	0.1	0.2
Other services	2.3	0.4	–	–	2.3	0.4
	8.7	**5.8**	**4.8**	**5.5**	**13.5**	**11.3**

Prior-year figures restated.

11.6 Responsibility statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group in accordance with German accepted accounting principles, and the management report for the Group, which is combined with the management report for Evonik Industries AG, 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.

Essen, February 17, 2017

Evonik Industries AG
The Executive Board

Dr. Engel Kullmann Dr. Kaufmann

Wessel Wolf

SUPPLEMENTARY INFORMATION

Independent auditor's report

To Evonik Industries AG, Essen

Report on the audit of the Consolidated Financial Statements

Audit Opinion on the Consolidated Financial Statements

We have audited the consolidated financial statements of Evonik Industries AG, Essen, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2016, and the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1, to December 31, 2016, and notes to the consolidated financial statements, including a summary of significant accounting policies.

According to § (Article) 322 Abs. (paragraph) 3 Satz (sentence) 1 zweiter Halbsatz (second half sentence) HGB ("Handelsgesetzbuch": German Commercial Code), we state that, in our opinion, based on the findings of our audit, the accompanying consolidated financial statements comply, in all material respects, with IFRS, as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Abs. 1 HGB and give a true and fair view of the net assets and financial position of the Group as at December 31, 2016, as well as the results of operations for the financial year from January 1, to December 31, 2016, in accordance with these requirements.

According to § 322 Abs. 3 Satz 1 erster Halbsatz HGB, we state that our audit has not led to any reservations with respect to the propriety of the consolidated financial statements.

Basis for Audit Opinion on the Consolidated Financial Statements

We conducted our audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), and additionally considered the International Standards on Auditing (ISA). Our responsibilities under those provisions and standards, as well as supplementary standards, are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent of the Group entities in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other German ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1, to December 31, 2016. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon, and we do not provide a separate audit opinion on these matters.

In our view, the key audit matters were as follows:

❶ Recoverability of goodwill
❷ Pension provisions

Our presentation of these key audit matters has been structured as follows:

① Matter and issue
② Audit approach and findings
③ Reference to further information

❶ Recoverability of goodwill

① In the consolidated financial statements of Evonik Industries AG a total amount of €2.8 billion in goodwill, which represents 14% of consolidated total assets, has been reported under the balance sheet line item "Intangible assets". Goodwill is tested by the Company for impairment as of the balance sheet date or if there are indications that goodwill may be impaired. The result of this measurement depends to a large extent on management's assessment of future cash inflows and the discount rate used, and is subject to considerable uncertainty. Against this background and due to the underlying complexity of the measurement of this material item, this matter was of particular importance during our audit.

② As part of our audit we, among other things, examined the method used for performing impairment tests. We satisfied ourselves as to the appropriateness of the expected future cash inflows used in the impairment tests in financial year 2016 by, inter alia, comparing this data with the current budgets from the medium-term planning adopted by management and approved by the supervisory board, and reconciling it against general and sector-specific market expectations. Supplementary adjustments to the medium-term planning for the purpose of the impairment test were discussed by us with the departments responsible and evaluated. With the knowledge that even relatively small changes in the discount rate applied, particularly in the "Performance Materials" segment, can have material effects on the amount of goodwill calculated in this way, we also focused in depth on the determination of the parameters used for the discount rate applied, including weighted average cost of capital, and evaluated the measurement model. Due to the materiality of goodwill and the fact that its measurement also depends on economic conditions which are outside of the Company's sphere of influence, we carried out our own sensitivity analyses for cash-generating units in addition to the Company's analyses and found that, taking the information available into account, the respective goodwill was sufficiently covered by the discounted future cash surpluses. The measurement inputs and assumptions used by management are in line with our expectations.

③ The Company's goodwill disclosures are contained in sections 3.6 and 4. of the notes to the consolidated financial statements.

❷ Pension provisions

① In the consolidated financial statements of Evonik Industries AG pension provisions of €3.9 billion, which represent 20% of consolidated total assets, have been reported. The provision is the net amount of the present value of defined benefit plan obligations of €11.6 billion and the fair value of plan assets of €7.8 billion plus a surplus of plan assets of €0.1 billion that cannot be recognized as an asset due to the asset ceiling. The vast majority of this is attributable to post-employment benefit commitments in Germany, the USA and the United Kingdom; in addition there are also, to a lesser extent, obligations from medical plans in the USA. Defined benefit plan and medical plan obligations are measured using the projected unit credit method in accordance with IAS 19. This requires in particular that assumptions be made about the long-term salary and pension trend, as well as average life expectancy and cost trends for medical plans. Furthermore, the discount rate as of the balance sheet date must be derived from the market yields of high-quality, currency-congruent corporate bonds with terms that match the expected maturities of the obligations. Changes in these actuarial assumptions must be recognized as actuarial gains or losses in other comprehensive income. In the past financial year this resulted in actuarial losses of €1.0 billion on the liability side which mainly arose from changes in the discount rate and the long-term pension trend. From our point of view, these matters were of particular importance, as recognition and measurement of these material items are to a large extent based on management's estimates and assumptions.

② During our audit, we evaluated the actuarial reports obtained by the respective group entities. In view of the specific characteristics of actuarial calculations, we were supported in this by our pensions specialists who reviewed the actuarial model on which the measurements were based and the measurement inputs applied for compliance with standards and appropriateness. In addition, based on the actuarial reports, the changes in obligations as well as the cost components were analyzed and checked for reasonableness against the background of the changes that had occurred in the measurement inputs and the numerical data. Finally, the accounting entries for the provisions and the disclosures in the notes to the consolidated financial statements were reconciled based on the actuarial reports. For the audit of the fair value of the share in Vivawest GmbH included in plan assets, we had an internal company valuation at our disposal which we reviewed. Furthermore, we obtained bank confirmations for the fair values of directly held listed securities, fund units and bank balances included in plan assets. For listed securities whose bank confirmations did not contain fair values, unlisted bonds and directly held structured products, as well as fund units, we tested, with the involvement of our internal specialists, samples of the processes on which the respective measurement was based as well as samples of the measurement inputs used. Based on our audit procedures, we were able to satisfy ourselves that the recognition and measurement of this material item were appropriate and that the disclosures required by IAS 19 in the notes to the consolidated financial statements were complete.

③ The pension provision disclosures are contained in section 7.8 of the notes to the consolidated financial statements.

Other Information

Management is responsible for the other information. The other information comprises

- the Corporate Governance Report according to section 3.10 of the German Corporate Governance Code,
- the Corporate Governance Statement pursuant to § 289a HGB and § 315 Abs. 5 HGB, as well as
- other parts of the annual report of Evonik Industries AG, Essen, for the financial year ended on December 31, 2016, which were not subject of our audit.

Our audit opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation of the consolidated financial statements, which comply with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB, 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. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our audit opinion on the consolidated financial statements. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), under additional consideration of the ISA, will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), under additional consideration of the ISA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group’s internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management’s use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group’s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor’s report to the related disclosures in the consolidated financial statements or the group management report or, if such disclosures are inadequate, to modify our audit opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor’s report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the net assets and financial position as well as the results of operations of the Group in accordance with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB.
- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an audit opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our report on the audit of the consolidated financial statements unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Report on the Audit of the Group Management Report

Audit Opinion on the Group Management Report

We have audited the group management report of Evonik Industries AG, Essen, which is combined with the Company’s management report, for the financial year from January 1, to December 31, 2016.

In our opinion, based on the findings of our audit, the accompanying group management report as a whole provides a suitable view of the Group’s position. In all material respects, the group management report is consistent with the consolidated financial statements, complies with legal requirements and suitably presents the opportunities and risks of future development.

Our audit has not led to any reservations with respect to the propriety of the group management report.

Basis for Audit Opinion on the Group Management Report

We conducted our audit of the group management report in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of management reports promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management and Those Charged with Governance for the Group Management Report

Management is responsible for the preparation of the group management report, which as a whole provides a suitable view of the Group's position, is consistent with the consolidated financial statements, complies with legal requirements, and suitably presents the opportunities and risks of future development. Furthermore, management is responsible for such policies and procedures (systems) as management determines are necessary to enable the preparation of a group management report in accordance with the German legal requirements applicable under § 315 Abs. 1 HGB and to provide sufficient and appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the group management report.

Auditor's Responsibilities for the Audit of the Group Management Report

Our objective is to obtain reasonable assurance about whether the group management report as a whole provides a suitable view of the Group's position as well as, in all material respects, is consistent with the consolidated financial statements as well as the findings of our audit, complies with legal requirements, and suitably presents the opportunities and risks of future development, and to issue an auditor's report that includes our audit opinion on the group management report.

As part of an audit, we examine the group management report in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of management reports promulgated by the IDW. In this connection, we draw attention to the following:

- The audit of the group management report is integrated into the audit of the consolidated financial statements.
- We obtain an understanding of the policies and procedures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these policies and procedures (systems).
- We perform audit procedures on the prospective information presented by management in the group management report. Based on appropriate and sufficient audit evidence, we hereby, in particular, evaluate the material assumptions used by management as a basis for the prospective information and assess the reasonableness of these assumptions as well as the appropriate derivation of the prospective information from these assumptions. We are not issuing a separate audit opinion on the prospective information or the underlying assumptions. There is a significant, unavoidable risk that future events will deviate significantly from the prospective information.
- We are also not issuing a separate audit opinion on individual disclosures in the group management report; our audit opinion covers the group management report as a whole.

Responsible Auditor

The auditor responsible for the audit is Lutz Granderath.

Düsseldorf, February 20, 2017

PricewaterhouseCoopers
Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft

sgd. Lutz Granderath	sgd. Antje Schlotter
Wirtschaftsprüfer	Wirtschaftsprüferin
(German Public Auditor)	(German Public Auditor)

Further information on corporate officers

Supervisory Board of Evonik Industries AG

Dr. Werner Müller, Mülheim an der Ruhr
Chairman of the Supervisory Board
Chairman of the Executive Board of RAG-Stiftung
a) Borussia Dortmund GmbH & Co. KGaA
RAG Aktiengesellschaft (Chair)
RAG Deutsche Steinkohle AG (Chair)
b) Contilia GmbH
Stadler Rail AG, Bussnang (Switzerland)

Edeltraud Glänzer, Hanover
(since May 19, 2016)
Deputy Chairwoman of the Supervisory Board
(since May 19, 2016)
Deputy Chairperson of the Mining, Chemical and Energy Industrial Union (IG BCE)
a) B. Braun Melsungen AG
Merck KGaA
Solvay GmbH (until October 15, 2016)

Martin Albers, Dorsten
Deputy Chairman of the Works Council for the Essen Campus facilities
a) Pensionskasse Degussa VVaG
b) PEAG Holding GmbH

Prof. Barbara Albert, Darmstadt
Professor of Solid State Chemistry at the Eduard-Zintl Institue of Inorganic and Physical Chemistry of the Technical University of Darmstadt
a) Schunk GmbH & Co. KG (since April 13, 2016)

Karin Erhard, Hanover
Board Secretary to the Pay-Scale/Finances Division of the Mining, Chemical and Energy Industrial Union (IG BCE)
a) INEOS Deutschland GmbH
INEOS Köln GmbH

Carmen Fuchs, Alzenau
Chairperson of the Works Council for the Hanau facilities (since September 1, 2016)
a) Pensionskasse Degussa VVaG

Stephan Gemkow, Overath
Chairman of the Management Board of Franz Haniel & Cie. GmbH
a) TAKKT AG (Chair)
b) JetBlue Airways Corporation, New York (USA)

Prof. Barbara Grunewald, Bonn
Chair for Civil Law and Commercial Law at the University of Cologne

Ralf Hermann, Herten
Chairman of the Group Works Council of Evonik Industries AG
b) RAG-Stiftung

Prof. Wolfgang A. Herrmann, Freising
President of Munich Technical University
b) Bayerische Forschungsallianz GmbH (Chair)

Frank Löllgen, Cologne
Regional Director North Rhine of the Mining, Chemical and Energy Industrial Union (IG BCE)
a) Bayer AG

Dr. Siegfried Luther, Gütersloh
Former CFO of Bertelsmann AG
a) Schaeffler AG
Sparkasse Gütersloh-Rietberg

Norbert Pohlmann, Essen
Chairman of the Works Council for the Goldschmidtstraße facilities
a) BKK Novitas

Dr. Wilfried Robers, Gescher
Chairman of the Executive Staff Council of the Evonik Group
a) Pensionskasse Degussa VVaG

Michael Rüdiger, Utting am Ammersee
Chief Executive Officer of DekaBank Deutsche Girozentrale
a) Deka Immobilien GmbH
Deka Investment GmbH (until September 30, 2016 and again since January 1, 2017)
(Chairman until September 30, 2016 and again since January 9, 2017)
Landesbank Berlin Investment GmbH (Chair)
(until September 30, 2016)
Liquiditäts-Konsortialbank GmbH in liquidation (Chair)

Anke Strüber-Hummelt, Marl
(since May 19, 2016)
Chairperson of the Works Council for the Marl facilities
(since January 1, 2017)
a) Evonik Resource Efficiency GmbH

Ulrich Terbrack, Reinheim
Deputy Chairman of the Group Works Council of Evonik Industries AG

Angela Titzrath, Hamburg
(since May 19, 2016)
Member (since October 1, 2016) and Chairperson (since January 1, 2017) of the Executive Board of Hamburger Hafen und Logistik AG
a) AXA Konzern Aktiengesellschaft

Ulrich Weber, Krefeld
(since May 19, 2016)
Member of the Board of Management of Deutsche Bahn AG responsible for Human Resources
a) DB Cargo AG
Schenker AG
DB Gastronomie GmbH (Chair)
DB JobService GmbH (Chair)
DB Zeitarbeit GmbH (Chair)
DEVK Deutsche Eisenbahn Versicherung Lebensversicherungsverein a. G. Betriebliche Sozialeinrichtung der Deutschen Bahn
DEVK Deutsche Eisenbahn Versicherung Sach- und HUK-Versicherungsverein a. G. Betriebliche Sozialeinrichtung der Deutschen Bahn
HDI Global SE

Dr. Volker Trautz, Munich
Former Chairman of the Management Board of LyondellBasell Industries
a) Citigroup Global Markets Deutschland AG
b) CERONA Companhia de Energia Renovável, São Paulo (Brazil)
OSF Merchant Banking, São Paulo (Brazil) (until June 30, 2016)
Perstorp Holding AB, Malmö (Sweden)

The following gentlemen left the Supervisory Board in 2016

Michael Vassiliadis, Hanover
(until May 18, 2016)
Deputy Chairman of the Supervisory Board
Chairman of the Mining, Chemical and Energy Industrial Union (IG BCE)
a) BASF SE
K+S AG
RAG Aktiengesellschaft
RAG Deutsche Steinkohle AG
STEAG GmbH
b) RAG-Stiftung

Dieter Kleren, Wesseling
(until May 18, 2016)
Chairman of the Works Council for the Wesseling facilities

Steven Koltes, St. Moritz (Switzerland)
(until May 18, 2016)
Co-Chairman CVC Capital Partners Group
b) Frontiers Media S.A. (Switzerland)
Kaltroco Limited (Jersey)

Dr. Christian Wildmoser, Surpierre (Switzerland)
(until May 18, 2016)
Managing Director of CVC Capital Partners Switzerland GmbH
b) Sigma Group Holdings S.à r.l. (Luxembourg)

a) Membership of other statutory supervisory boards.
b) Membership of comparable German and foreign supervisory bodies of business enterprises pursuant to Section 125 Paragraph 1 Sentence 5 of the German Stock Corporation Act (AktG).

Executive Board of Evonik Industries AG

Dr. Klaus Engel, Mülheim an der Ruhr
Chairman of the Executive Board
a) NATIONAL-BANK AG
b) Borussia Dortmund Geschäftsführungs-GmbH

Christian Kullmann, Hamminkeln
Deputy Chairman of the Executive Board
(since May 6, 2016)
Chief Strategic Officer
a) Borussia Dortmund GmbH & Co. KGaA
Evonik Performance Materials GmbH

Dr. Ralph Sven Kaufmann, Düsseldorf
Responsible for the Nutrition & Care, Resource Efficiency and Performance Materials segments
a) Evonik Nutrition & Care GmbH (Chair)
Evonik Resource Efficiency GmbH (Chair)
Evonik Performance Materials GmbH (Chair)

Thomas Wessel, Herten
Chief Human Resources Officer
Responsible for Technology & Infrastructure
a) Evonik Nutrition & Care GmbH
Evonik Resource Efficiency GmbH
Evonik Performance Materials GmbH
Evonik Technology & Infrastructure GmbH (Chair)
Pensionskasse Degussa VVaG
Vivawest GmbH
Vivawest Wohnen GmbH
b) Gesellschaft zur Sicherung von Bergmannswohnungen mbH

Ute Wolf, Düsseldorf
Chief Financial Officer
a) Deutsche Asset Management Investment GmbH
Evonik Nutrition & Care GmbH
Evonik Resource Efficiency GmbH
Evonik Performance Materials GmbH
Pensionskasse Degussa VVaG

a) Membership of other statutory supervisory boards.
b) Membership of comparable German and foreign supervisory bodies of business enterprises pursuant to Section 125 Paragraph 1 Sentence 5 of the German Stock Corporation Act (AktG).

Market positions 2016

Market positions 2016 [a]

Product	Application	Global ranking[a]	Capacity in metric tons p. a.
Nutrition & Care			
Amphoteric surfactants	Shampoos, shower gels	1	[d]
Ceramides, phytosphingosines	Cosmetics	1	[d]
Oleochemical quaternary derivatives	Fabric softeners	1	[d]
Organically modified silicones	Additives for polyurethane foams, cosmetics, radiation-cured separation coatings, super-spreading agents	1–2	[d]
Superabsorbents	Diapers, feminine hygiene products, incontinence products, technical applications	2–3	570,000
Amino acids and amino acid derivatives	Pharmaceutical intermediates and infusion solutions	3	[d]
Exclusive synthesis	Intermediates and active substances for pharmaceuticals and specialty applications	3	[d]
Pharmaceutical polymers	Drug delivery systems (e.g. tablet coatings) and medical products (e.g. bioresorbable implants)	2	[d]
DL-methionine	Animal nutrition	1	580,000
Resource Efficiency			
Hydrogen peroxide	Bleaching of pulp and textiles, oxidation agent for the chemical industry, starting product for polyurethane	2	> 900,000
Activated nickel catalysts	Life sciences and fine chemicals, industrial chemicals	3	[d]
Precious metal powder catalysts	Life sciences and fine chemicals, industrial chemicals	1	[d]
Oil and fat hydrogenation catalysts	Life sciences and fine chemicals, industrial chemicals	3	[d]
Amorphous polyalphaolefins	Thermoplastic hot melt adhesives	1	[d]
Polybutadienes	Automotive manufacturing (adhesives and sealants)	2	[d]
Polyester resins	Can- and coil coating, reactive hot melt adhesives	1	[d]
Thermoplastic and reactive methacrylate resins	Binders for paints and coatings	1–2	[d]
Organically modified silicones	Binders for paints and printing inks	2	[d]
Isophorone chemistry	Environment-friendly coating systems, high-performance composites (crosslinkers)	1	[d]
PEEK	Special applications in the oil and gas, automotive and aviation industries, electronics/semiconductors, specialty medical technology (e.g. implants)	3	[d]
Polyamide 12	High-performance specialty polymer applications (e.g. automotive, medical, sport, gas and offshore oil pipelines)	1	[d]
Oil additives	Viscosity modifiers	1	[d]
Organosilanes, chlorosilanes	Rubber, silicone rubber, paints and coatings, adhesives and sealants, building protection materials, pharmaceuticals, cosmetics, optical fibers	1[b]	[d]
Fumed silicas, fumed metal oxides, precipitated silicas, matting agents	Silicone rubber, paints and coatings, adhesives, sealants and plastics, pharmaceuticals, cosmetics, high-temperature insulation, electronics, reinforcement of rubber, consumer products, additives for the coatings and printing inks industry	1	600,000

Market positions 2016 [a]

Product	Application	Global ranking [a]	Capacity in metric tons p. a.
Performance Materials			
Butene-1	Co-monomer for polyolefins	1 [c]	235,000
DINP	High-molecular plasticizers for use in flexible PVC	2	220,000
Isononanol	Intermediate for high-molecular plasticizers	2	400,000
Cyanuric chloride	Industrial applications and specialties (e.g. crosslinkers and optical brighteners), crop protection (especially Chinese producers)	3	31,000
Alkoxides	Catalysts for biodiesel, pharmaceuticals, agrochemicals and other applications	1	> 200,000
Methacrylate monomers	Dispersions, coatings, plastics, additives, adhesives, optical lenses	1 – 2	[d]
Methacrylate polymers (PMMA molding compounds and PMMA semi-finished products)	Construction materials for the automotive and electrical/electronics industries, specialty medical technology, architecture, design and communication applications	1 – 2	400,000

[a] Evonik's assessment based on various individual market reports/information and in-house market research.
[b] Chlorosilanes: freely traded volumes. Overall assessment—market position differs depending on application.
[c] Freely traded volumes.
[d] No data available.

Alternative Performance Measures

For internal management purposes, we use alternative performance measures that are not defined by IFRS. The calculation of these measures and their development are outlined in the management report in addition to the IFRS performance measures. The most important alternative performance measures are also presented in the segment reporting.

Alternative performance measures used

	For definition and calculation see page
Adjusted EBITDA	53, 58, 170
Adjusted EBITDA margin	53, 170
Adjusted EBIT	53, 58, 170
Adjustments	53, 58
Adjusted net income	59
Adjusted earnings per share	59
Capital employed	53, 60, 170
Economic value added (EVA®)	60
Free cash flow	54, 73
Net financial assets/debt	71
ROCE	53, 60, 171

Glossary

Technical terms

3D printing
In 3D printing, three-dimensional objects are manufactured on the basis of a digital blueprint. The material is applied in layers on a base surface to create a geometric structure. Evonik is one of the world's leading producers of high-performance materials for 3D printing, and offers polymers and additives for a variety of 3D printing processes.

Accident frequency (occupational safety indicator)
Number of accidents involving Evonik employees and contractors' employees under Evonik's direct supervision per 1 million working hours.

Alkoxides
Evonik produces alkoxides, which are used as catalysts for efficient high-yield production of biodiesel. Using Evonik's catalysts, biodiesel can be manufactured in a water-free process. As a result, fewer unwanted by-products are generated, leading to less contamination, so they facilitate the production of biodiesel.

Amino acids
Amino acids are building blocks for proteins that are used in animal nutrition. They are used to ensure that the amino acid content of animal feed is optimally aligned to requirements. As a result, livestock needs less feed. That also reduces excretion of nitrogen and undigested nutrients, which improves the carbon footprint of livestock farming and reduces overfertilization of the soil. Evonik manufactures and markets all five major essential amino acids for animal nutrition, i.e. DL-methionine (MetAMINO®), L-lysine (Biolys®), L-threonine (ThreAMINO®), L-tryptophan (TrypAMINO®) and L-valine (ValAMINO®). Evonik also produces amino acids and their derivatives in pharmaceutical quality for use in infusion solutions for parenteral nutrition, as starting products for animal cell cultures, and in the manufacture of active ingredients.

C_4 chemistry
C_4 crack is a by-product of crude oil refining. It is mainly produced in a steam cracker when naphtha is split into ethylene and propylene. After isolation, Evonik processes the C_4 hydrocarbons and places them on the market, for example, as butadiene for tires and butene-1 for the plastics industry. Isobutene is processed into methyl tertiary butylether (MTBE), which is used as an anti-knock agent in fuel. In further processing steps, it manufactures high-chain alcohols and plasticizers for flexible PVC. Evonik's integrated C_4 technology platform ensures excellent product yields. All hydrocarbons contained in C_4 crack are processed cost-effectively.

Carbon Disclosure Project (CDP)
The Carbon Disclosure Project (CDP) is a non-profit organization and is currently the world's largest and most important initiative by the financial sector on climate change. It is currently supported by more than 800 institutional investors with total assets under management of over US$ 100 trillion. Companies report data and information on CO_2 emissions, climate risks and reduction targets and strategies to the CDP on a voluntary basis once a year. Investors use the data to derive a climate risk profile for companies, which they then use in their investment decisions.

Composites
Composites are composed of at least two different materials, for example a matrix material reinforced with fibers. By combining the properties of the materials carefully, it is possible to produce components that are very light yet extremely tough.

Diversity
Evonik defines diversity as a balanced employee structure, not just in terms of gender, but also in relation to specialist areas, experience of different organizational units and functional areas, a broad age range and various nationalities, in other words, diversity across the board.

Greenhouse Gas Protocol (GHG Protocol)
The Greenhouse Gas Protocol is the most widespread voluntary international standard for calculating and compiling data on greenhouse gas emissions from industry. It was developed by the World Business Council for Sustainable Development and the World Resources Institute.

High-performance polymers
Evonik is a specialist for high-performance polymers. These have particularly high strength, making them a welcome alternative to metals in many fields, for example, in light-weight structures, medical implants and industrial applications. Depending on where they are used, such materials have to withstand high temperatures, aggressive chemicals and significant mechanical strain.

Hydrogen peroxide
Hydrogen is one of the cleanest and most versatile chemicals. Because of its positive properties it is used in a wide range of applications, from environment-friendly bleaching agents in the pulp and textile industry to etching agents in the electronic industry, active pharmaceutical ingredients and cosmetic applications, sterilization and disinfection agents in food processing as well as oxidizing agents in chemical and pharmaceutical syntheses. It is also used in the innovative hydrogen peroxide-to-propylene oxide (HPPO) process developed by Evonik and ThyssenKrupp Industrial Solutions for the direct chemical synthesis of propylene oxide, an important precursor for polyurethanes, and, for example, in the production of caprolactam.

Incident frequency (plant safety indicator)
This indicator is based on the process safety performance indicator defined by the European Chemical Industry Council (Cefic). Analogously to the accident frequency indicator for occupational safety, it covers incidents involving the release of substances, fire or explosion, even if there is little or no damage. It is calculated from the number of incidents per 1 million working hours.

Integrated technology platforms
Integrated technology platforms allow efficient use of product streams and thus high added value by utilizing by-products from one production process as starting products for others. That saves resources, reduces CO_2 emissions and leverages cost-efficiency. Examples of integrated technology platforms in the Evonik Group are isophorone and silicon.

Isophorone/isophorone diamine/isophorone diisocyanate
Isophorone is used as a solvent, for example in the paints and coatings industry. It is also used to produce the derivatives isophorone diamine and isophorone diisocyanate. Isophorone diamine is an important curing agent for epoxy resin systems, for example to strengthen rotor blades. Isophorone diisocyanate is used to produce light- and weather-resistant polyurethanes, for example, for coating instrument panels and other plastic components.

Monomers
Monomers are low-molecular-weight, reactive molecules that can build polymers.

Oil additives
As a leading global supplier of oil additives, Evonik develops innovative technologies that improve the operative efficiency of engines, gears and hydraulic systems. Specific and customized improvements in the flow properties of lubricants over a wide temperature range play an important role. Depending on the application, Evonik markets these technologies as DRIVON™, NUFLUX™ and DYNAVIS®.

PEEK
Polyether ether ketones (PEEK) are partially crystalline high-performance polymers. In view of their exceptionally high mechanical, thermal and chemical properties, they are mainly used in functional components and assemblies in automotive engineering, aviation, electronics and medical products.

PMMA
Abbreviation for polymethylmethacrylate. This is a colorless polymer (acrylic glass) that can be colored in a range of shades. Properties: high light transmittance, good moldability, exceptionally high weather resistance. Applications: automotive and aviation engineering, architecture, lighting, design, electronics and communications technology. Best-known brand: PLEXIGLAS®, which is marketed as ACRYLITE® in the Americas. Form supplied: thermoplastic molding compounds, cast or extruded semi-finished goods (sheet, film, tubes, rods).

Polyimides
Polyimides are mainly used in filter bags for high-temperature filtration in coal-fired power plants and waste incinerators, and in highly selective membranes for efficient gas separation.

Polymers
Long-chain, short-chain or crosslinked molecules (macromolecules) produced by linking smaller molecules (monomers).

Probiotics
Probiotics are live bacteria that occur naturally in the intestinal tract. They provide a valuable service for humans and animals: Good bacteria aid digestion, stimulate the metabolism, prevent the growth of pathogens, and strengthen the immune system.

REACH
REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is the European chemicals regulation.

Responsible Care®
Responsible Care® is the chemical industry's global initiative for a continuous improvement in health, safety and environmental performance. As well as observing statutory and other regulations, the industry cooperates with government agencies and advocacy groups on a wide range of voluntary initiatives.

Silanes
Silanes are a group of chemical compounds, consisting of a silicon-based structure and up to four functional groups.
- Organofunctional silanes have at least one functional hydrocarbon group and possibly another functional group. They are used in high-performance additives that improve the properties of inorganic particles, resins and polymers. For example, they enhance the bonding properties of adhesives, make plastics heat-resistant, and add flame-retardant properties to cables.
- Sulfur-functional silanes have revolutionized the production of tires, where they are used in combination with silica to improve key properties such as rolling resistance and wet grip.
- Chlorosilanes are key resources for the semiconductor and optical fiber industry.

Silica
Evonik manufactures both precipitated silica using a wet route and fumed silica which is produced by a flame process. Silica is also known as silicon dioxide. These ultra-fine particles are used in a wide range of applications, including the life sciences (pharmaceuticals and cosmetics), construction, adhesives and sealants, paints and coatings, furniture manufacture, electronics applications such as polishing computer chips and the production of toners for digital printing. They also play a key role in energy-saving tires with low rolling resistance ("green" tires).

Silica/silane system
Silica is used in combination with silanes to reinforce the tread of modern tires. The silica/silane system greatly reduces rolling resistance, resulting in fuel savings of up to 8 percent compared with conventional auto tires. It also improves grip on wet and wintry roads.

Structural foams
Structural foams are popular for lightweight construction because they are light and stable. ROHACELL® is the brand name for Evonik's polymethacrylimide (PMI) structural foams, which have been used for many years in planes and helicopters. Now they are increasingly being used in sandwich structures in the automotive industry.

Superabsorbents
Crosslinked polymers that are insoluble in water and can absorb and store large quantities of aqueous liquid through a mechanism that causes them to swell and form hydro gels. The liquid is not released even under pressure. Consequently, these polymers are mainly used in diapers. Special forms of superabsorbents are used in agriculture to regulate the moisture in soil. They can absorb large quantities of water, and release it to the plants during dry periods.

UN Global Compact
The United Nations Global Compact is a strategic initiative for companies that undertake to align their business operations and strategies with ten universally recognized principles relating to human rights, labor, environmental protection and fighting corruption. Companies that join the Global Compact give an undertaking that they will report annually on their progress.

Vision 2050
The Vision 2050 of the World Business Council for Sustainable Development describes the pathway to achieving a sustainable world with around 9 billion people living well within the limits of the planet by 2050. Companies play a key role in this.

World-scale facility
A large-scale production facility. World-scale facilities are often more economical because fixed costs per metric ton decline as output increases.

Financial and economic terms

Adjusted EBIT
Earnings before financial result and taxes, after adjustments. Earnings indicator showing Evonik's operating earnings performance irrespective of the structure of its assets.

Adjusted EBITDA
Earnings before financial result, taxes, depreciation and amortization, after adjustments. Earnings indicator showing Evonik's operating earnings performance irrespective of the structure of its assets and its investment profile. This is a cash flow-related indicator which is used in particular in the adjusted EBITDA margin to show the relationship to sales as a basis for comparison with competitors.

Adjustments
Evonik refers to the special items that are factored out when calculating the operational performance indicators adjusted EBITDA and adjusted EBIT as adjustments. They include restructuring, impairment losses/reversals of impairment losses, income and expenses in connection with the purchase/disposal of investments in companies, and other income and expense items that, due to their nature or amount, do not reflect the typical operating business.

Compliance
Compliance refers to all activities to ensure that the conduct of the company, its governance bodies and its employees respect all applicable mandatory standards such as legal provisions, statutory provisions and prohibitions, in-house directives and voluntary undertakings entered into by Evonik. The basis for this understanding and the observance of these binding standards is set out in Evonik's Code of Conduct.

Corporate governance
Corporate governance comprises all principles underlying the management and oversight of a company. As an expression of good and responsible management of the company, it is therefore a central element in a company's management philosophy. The principles of corporate governance relate mainly to collaboration within the Executive Board and Supervisory Board and between these two boards and the shareholders, especially at Shareholders' Meetings. They also relate to the company's relationship with other people and organizations with which it has business dealings.

CTA
Abbreviation for contractual trust arrangement. This is a model used by Evonik to transfer some of its pension obligations to a trust established especially for this purpose: Evonik Pensionstreuhand e. V., Essen (Germany). The assets transferred to this trust secure employees' pensions.

EVA®
Abbreviation for economic value added. Indicator used for value-oriented management of the Evonik Group. EVA® is calculated from the difference between adjusted EBIT and the cost of capital employed. If EVA® is positive, value is created.

Free cash flow
The free cash flow is a measure of the company's internal financing capacity. It shows the cash that is available to pay dividends, make acquisitions and repay borrowing. The free cash flow is calculated from the cash flow from operating activities, continuing operations, less outflows for capital expenditures on intangible assets, property, plant and equipment.

Hedge accounting
This refers to accounting for hedging transactions and the associated hedged items as a single valuation unit. The purpose of hedge accounting is to synchronize the otherwise different periods in which the hedged item and hedge impact on earnings.

Hedging
Hedging is the strategy used to offset the exposure of business transactions to risks such as changes in exchange rates, interest rates and raw material prices. The company enters into an additional transaction whose profile is exactly opposite to the profile of the hedge transaction. Derivative financial instruments such as forward contracts, swaps and options are used as hedging instruments.

IFRS
Abbreviation for International Financial Reporting Standards. Since 2005 companies listed on stock exchanges in the European Union have been required to prepare consolidated financial statements in accordance with IFRS.

Rating
In the financial community, a rating is an assessment of the creditworthiness of a debtor. Ratings are generally awarded by specialized rating agencies. The probability of default is calculated on the basis of specific criteria and debtors are assigned to rating classes that are indicated by rating codes. Ratings are also awarded for corporate and government bonds. A rating indirectly affects the debtor's business activity. Normally a better rating enables a debtor to obtain favorable terms for borrowing.

ROCE
The return on capital employed is a measure of the profitability of capital employed. It is calculated by dividing adjusted EBIT by the average capital employed in the reporting period.

Stakeholders
In a corporate context, the term stakeholders refers to all natural or legal persons with an interest in the development of an enterprise. Stakeholders range from owners and employees through customers and suppliers to the state, lenders and general public.

Swaps (currency swaps, interest rate swaps)
Derivative financial instruments used to hedge currency or interest rate risks by swapping cash flows. Currency swaps entail swapping payments in different currencies, while interest swaps comprise swapping fixed interest rates are variable rates.

Venture capital
Venture capital is risk capital that is made available to fund innovative concepts and ideas, generally at high-growth small and mid-sized enterprises. Through Evonik Venture Capital GmbH, Evonik aims to invest up to €100 million in promising start-ups and leading specialized venture capital in the mid term. The regional focus is Europe, the USA and Asia.

Volatility
Volatility is a measure of the fluctuation in the price of traded goods, e.g. shares, currencies, interest rates, in a given period. It expresses the standard deviation of relative changes in prices over a given period (e.g. a year). The term is often used to denote the fluctuation in prices or interest rates on entire markets.

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