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.

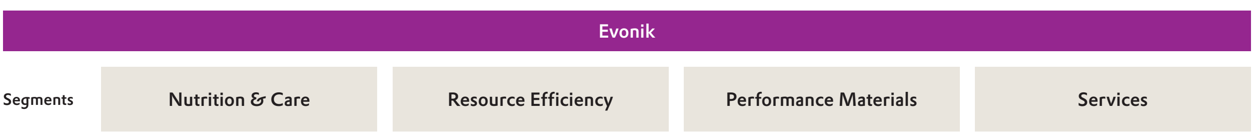
The Nutrition & Care segment produces specialty chemicals, principally for use in consumer goods for daily needs, and in animal nutrition and healthcare products.

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



[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.

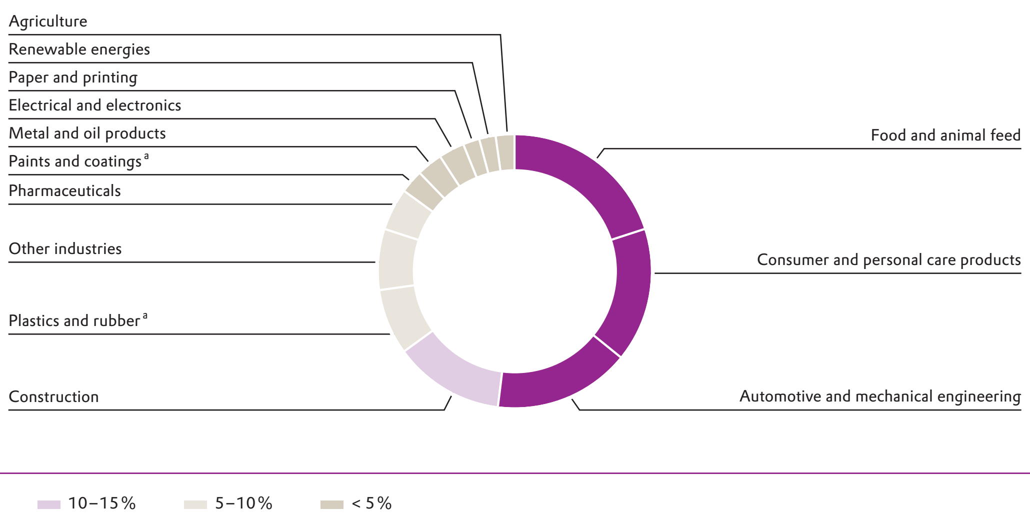
Broadly diversified end-markets

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.

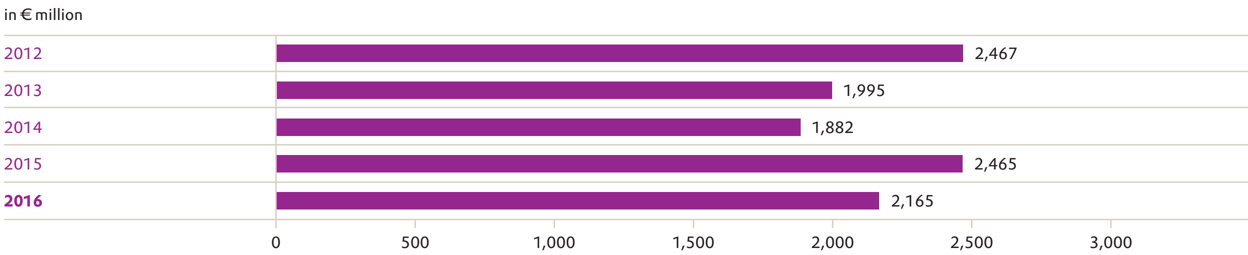
The adjusted EBITDA margin is good at 17.0 percent, and the ROCE of 14.0 percent represents an attractive return.

[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.

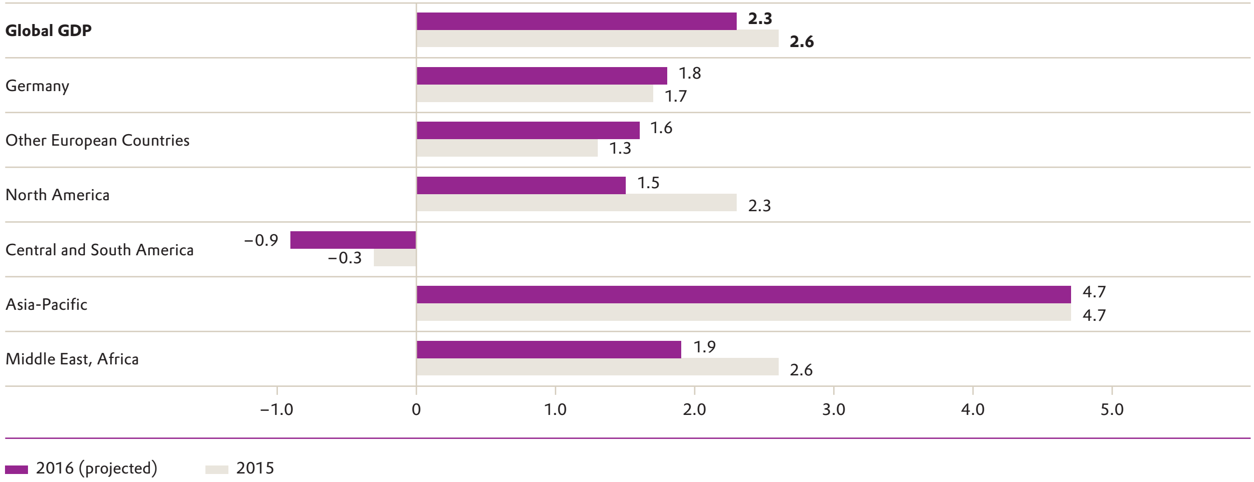
Reasons for the slowdown in growth in the USA, which was mainly evident in the second and third quarters, were weak industrial output, low capital expenditures, and a reduction in inventories. In addition, exports were held back by the strength of the US dollar. By contrast, consumer spending benefited 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

in %

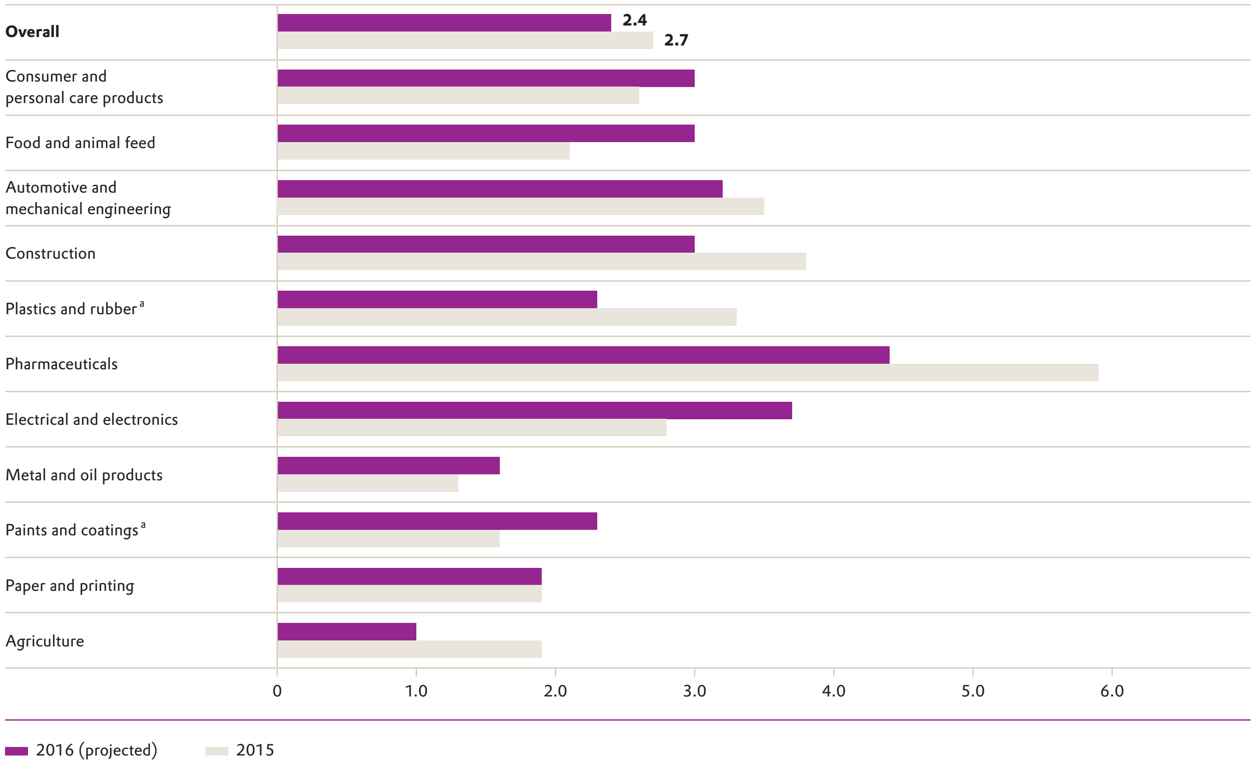


Weaker development of end-customer industries

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

in %



[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

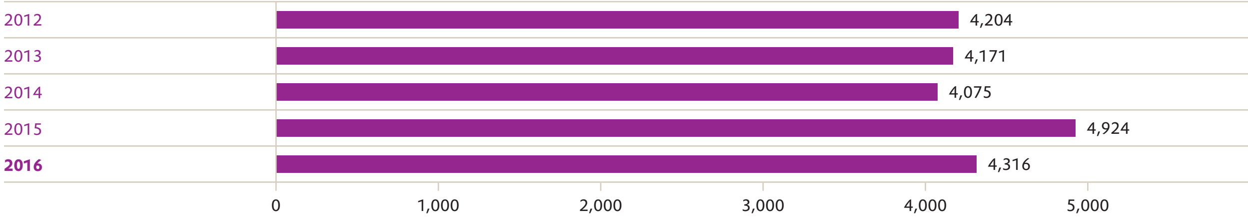
The Nutrition & Care segment's adjusted EBITDA was 30 percent below the excellent prior-year level at €1,006 million. This decline was due principally to lower selling prices. The adjusted EBITDA margin slipped from an excellent 29.1 percent in the previous year to 23.3 percent.

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

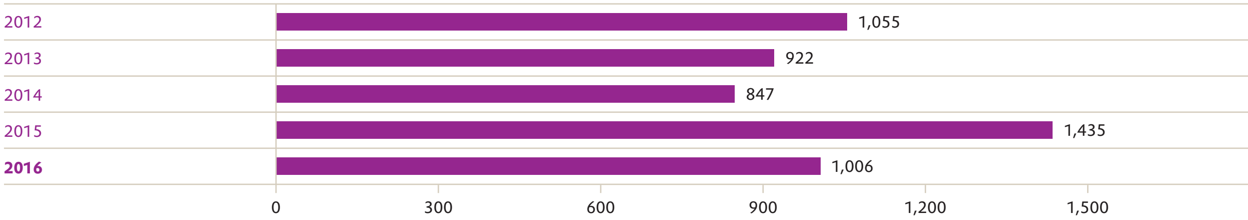
in € million



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.

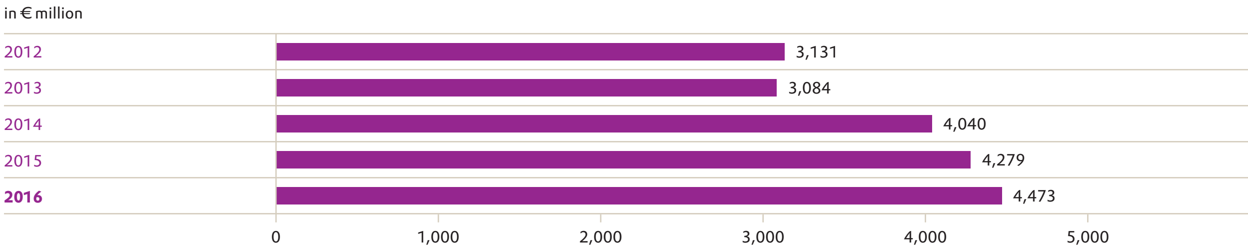
Further rise in earnings

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

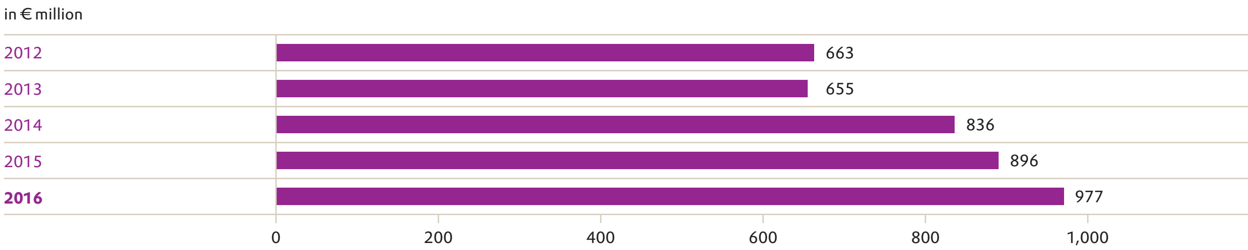
In the Resource Efficiency segment, capital expenditures increased to €266 million (2015: €241 million). They were once again higher than depreciation and amortization, which came to €224 million. As a result of the expansion of production capacity, the average capital employed increased by €50 million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

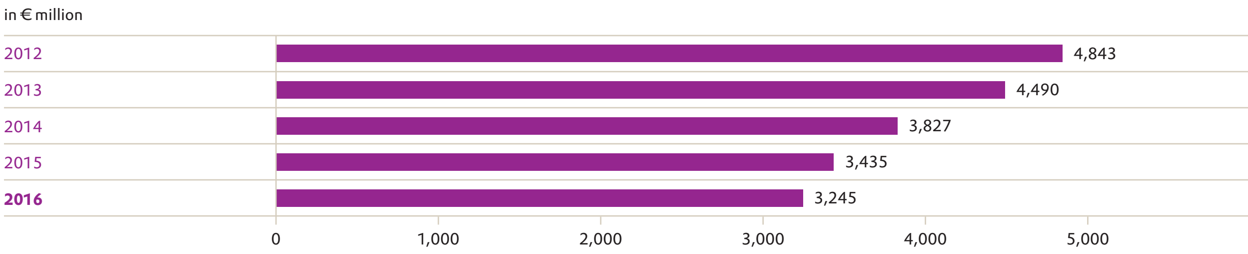
Good demand drove perceptible volume growth in the Performance Materials segment. However, sales were down 6 percent at €3,245 million due to lower selling prices as the reduction in raw material prices was passed on to customers.

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

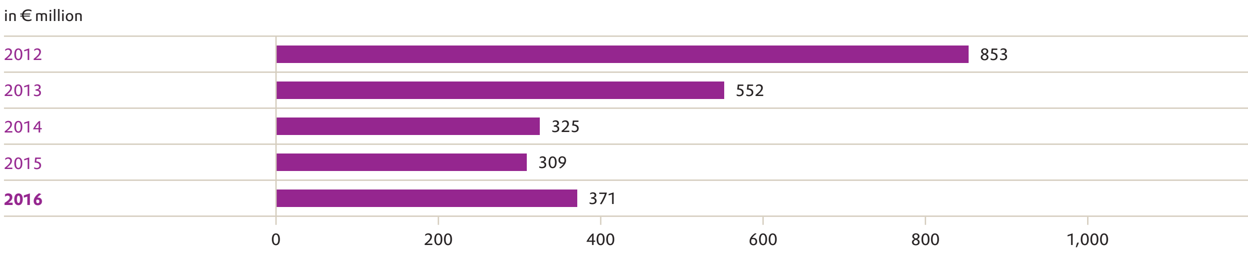
Adjusted EBITDA increased 20 percent to €371 million. This was primarily due to a rise in volumes, high capacity utilization at production facilities, lower raw material costs, and strict cost discipline. The adjusted EBITDA margin improved from 9.0 percent to 11.4 percent.

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.

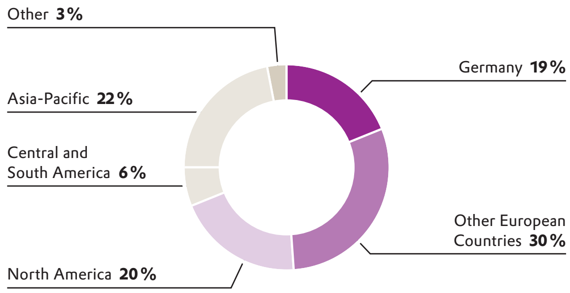
2.7 Regional development

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.

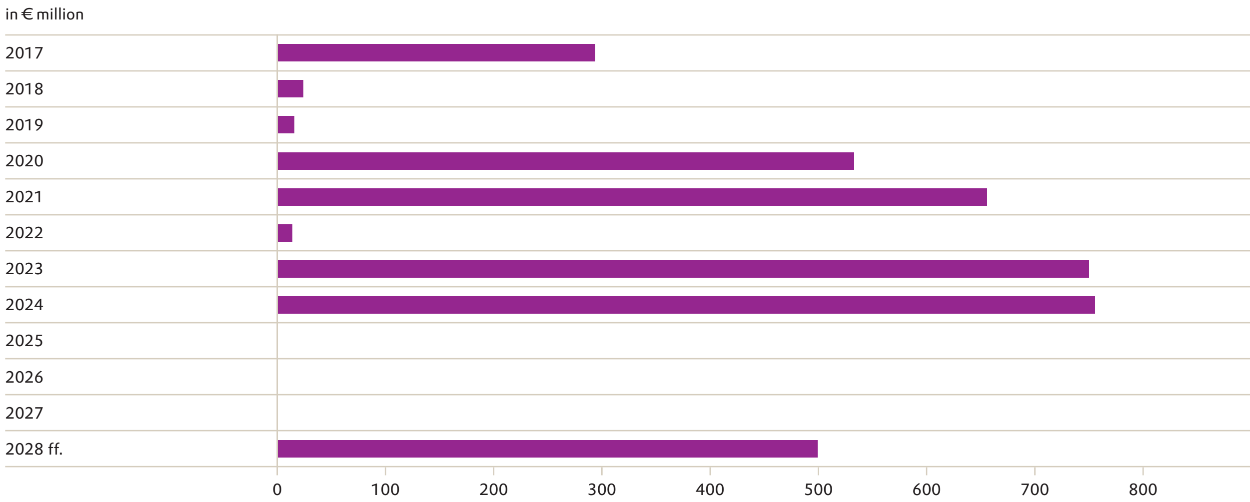
On the reporting date, €3.15 billion of the debt issuance program of up to €5 billion had been used to issue bonds.

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.

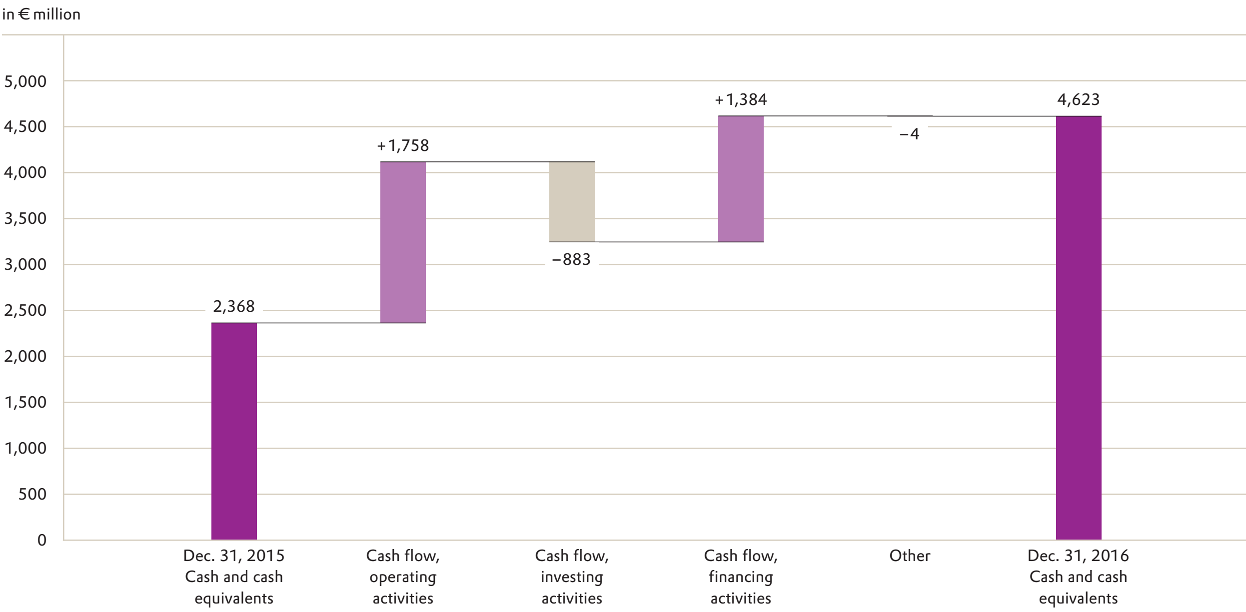
Cash flow statement (excerpt)

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).

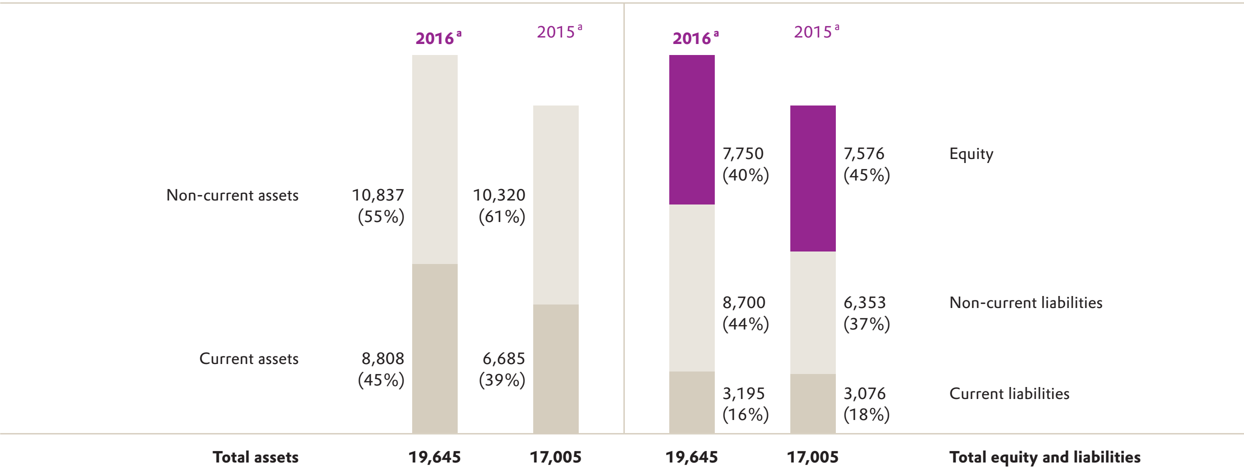
Equity[1] increased slightly, by €0.2 billion, to €7.7 billion. The equity ratio declined from 44.6 percent to 39.5 percent.

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."

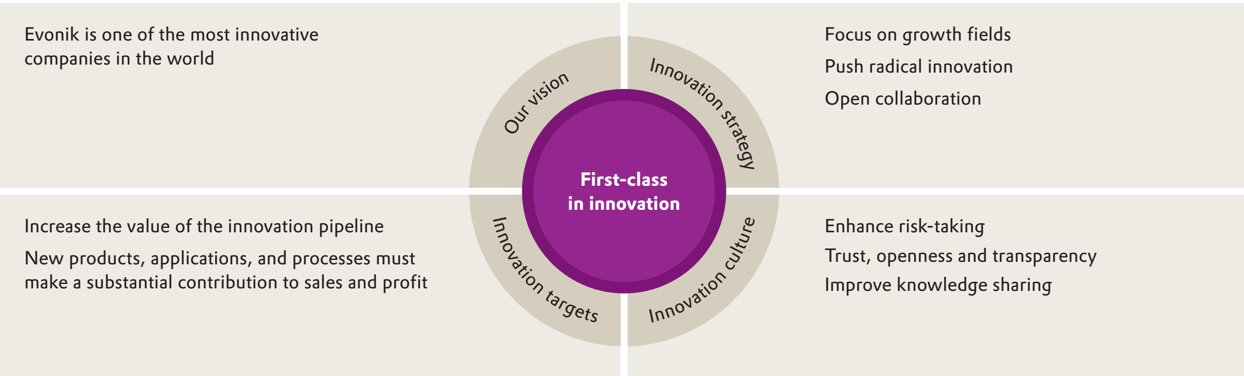
[1] For details of the assumptions, please refer to the report on expected developments.

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:

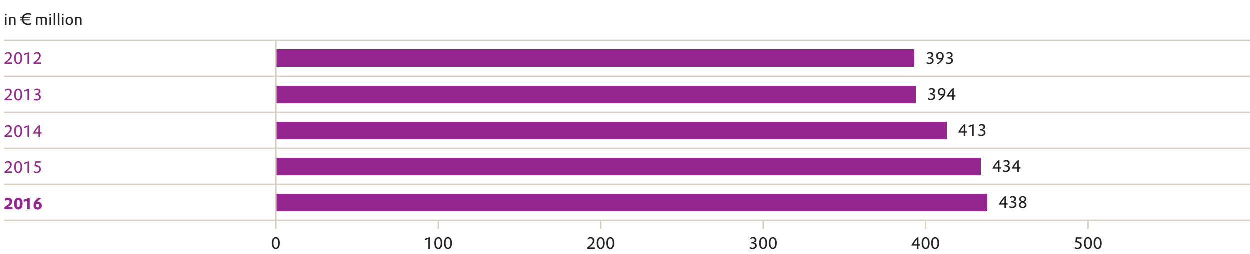
Main products introduced in 2016

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.

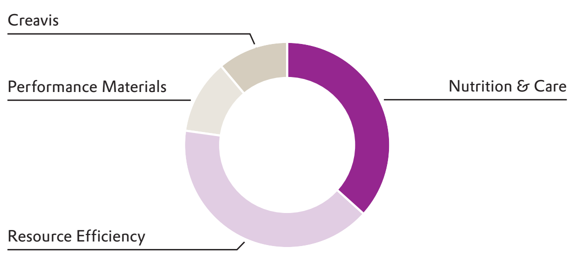
R&D at Evonik

	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 bioabsorbable, 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 Chemie^3 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.

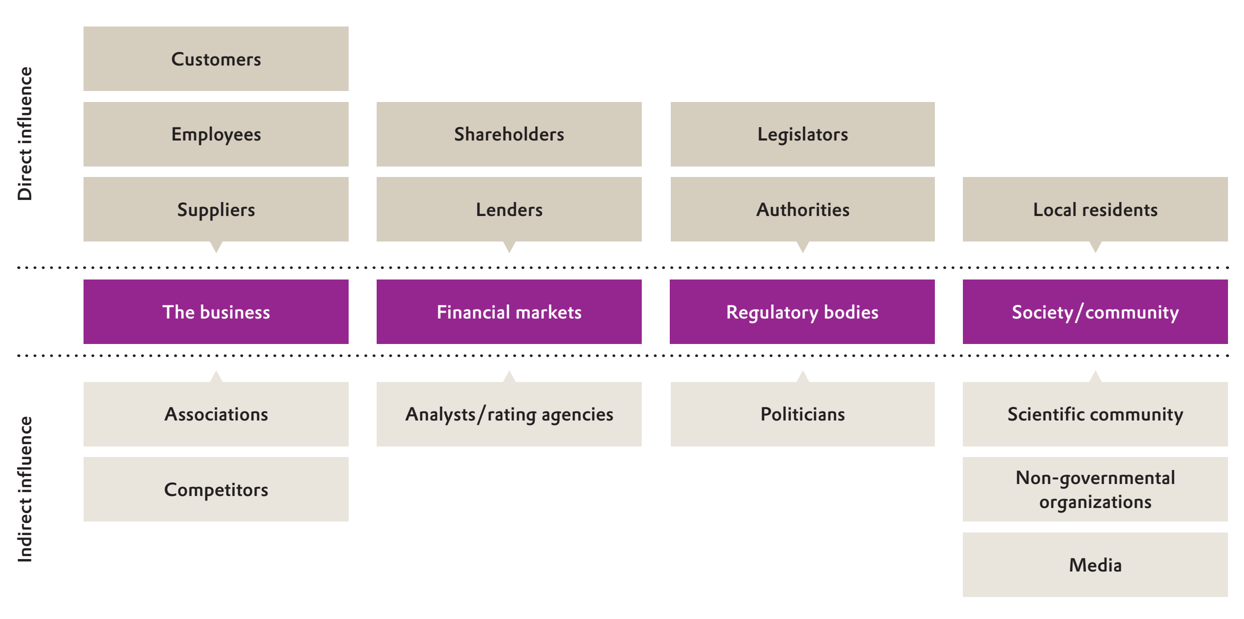
Sustainability management at Evonik

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

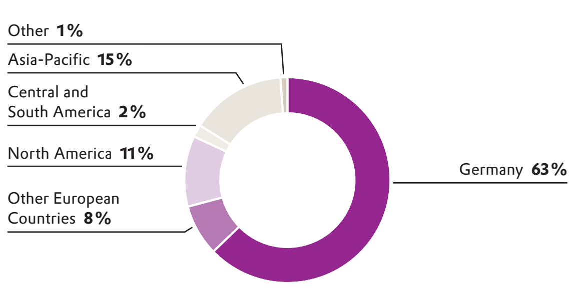
At year-end 2016, the Evonik Group had 34,351 employees, 775 more than at year-end 2015. The increase resulted principally from acquisitions and investment in growth projects in the Nutrition & Care and Resource Efficiency segments. Implementation of the Administration Excellence program to enhance efficiency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

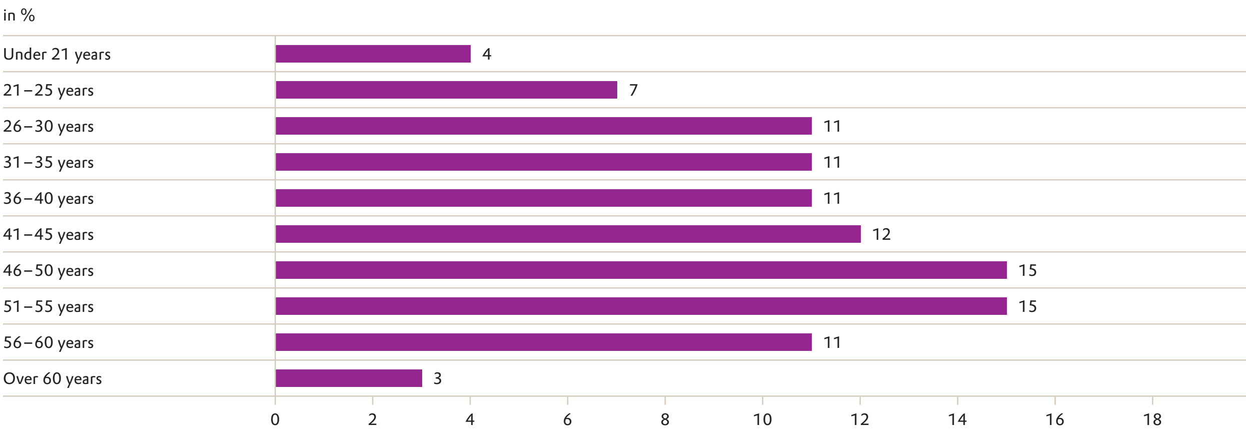
Nearly two-thirds of our workforce is employed in Germany. In line with our global focus, other significant areas of employment are the Asia-Pacific region (2016: 15 percent) and North America (2016: 11 percent).

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.

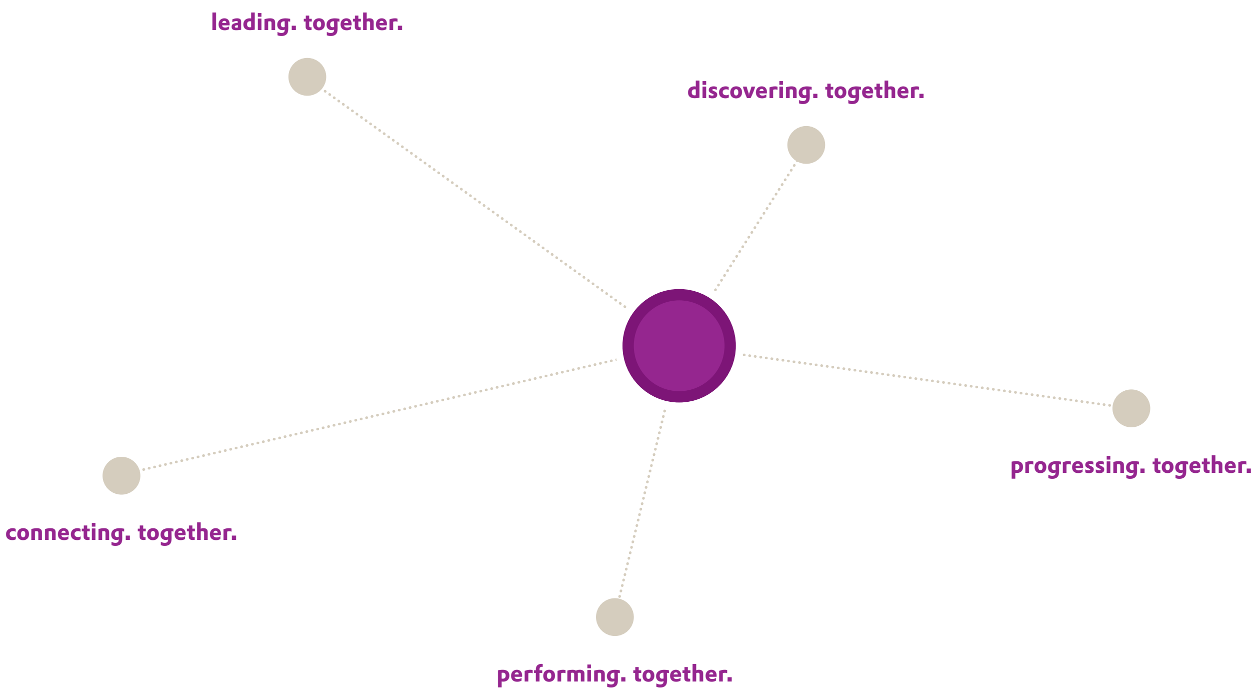
Our HR strategy is geared to a healthy performance culture, together with dialogue based on partnership and excellence in human resources processes. The strategic focus of our human resources work is focused on the principles of "Attract" (discovering. together.), "Develop" (progressing. together.),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

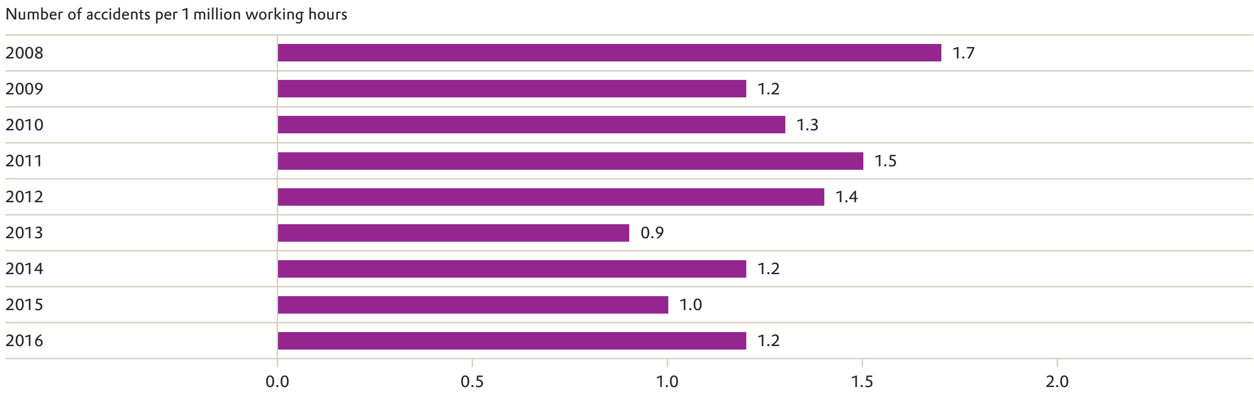
We take our responsibility in the field of safety particularly seriously—during production and while shipping products to our customers. Our objective is to protect our employees and local residents as well as the environment from any potential negative impact of our activities. The Group-wide "Safety 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

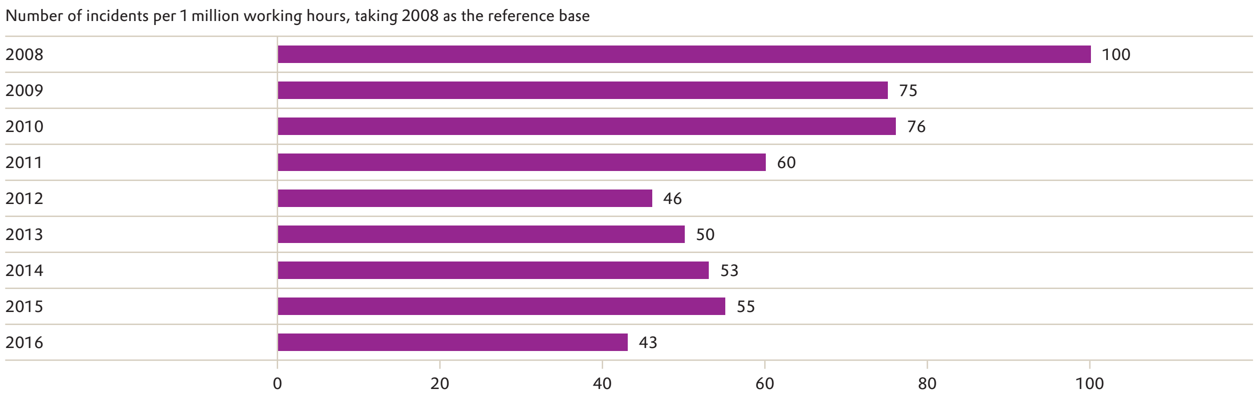
A special focus of our initiative is the safety of our employees—both at work and on the way to and from work—and the safety of contractors working at our sites. In 2016, the **accident frequency indicator**[3] for our employees was 1.2, which was within our defined maximum limit of 1.3. However, it 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



Incident frequency indicator



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.

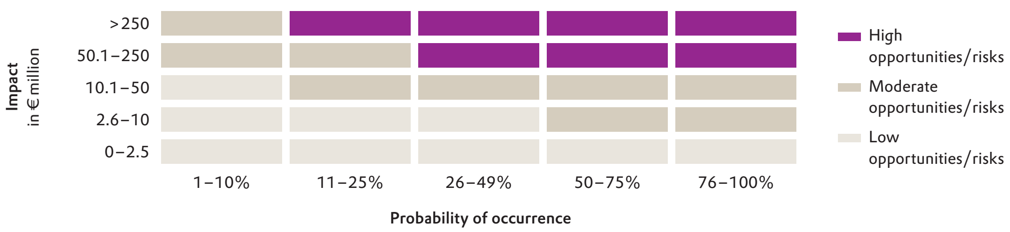
A central Corporate Risk Officer coordinates and oversees the processes and systems. He is the contact for all risk coordinators and is responsible for information, documentation and coordination at Group level. Further responsibilities include ongoing development of the methodology used by the risk 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.

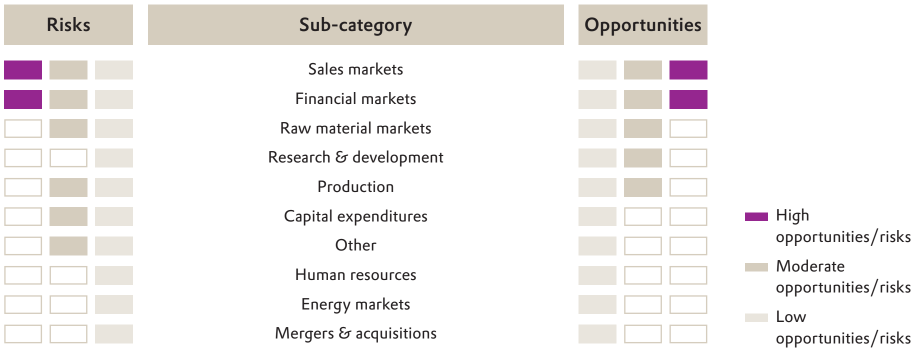
For 2016 we expected slightly more risks than opportunities. During the year, there were some opportunities and risks that canceled each other out. Pleasingly, we were mainly able to realize opportunities in the Resource Efficiency and Performance Materials segments, especially in C_4 chemicals. The 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



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

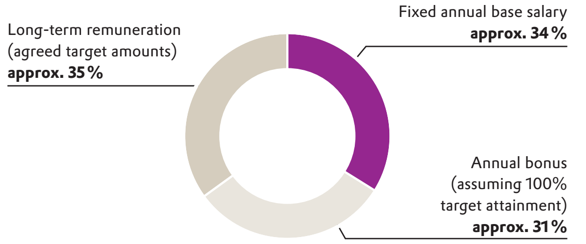
The remuneration system for the Executive Board is designed to ensure that members receive adequate remuneration for their tasks and responsibilities, and to take direct account of the performance of each member of the Executive Board and of the company. The structure of the remuneration system for the 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.

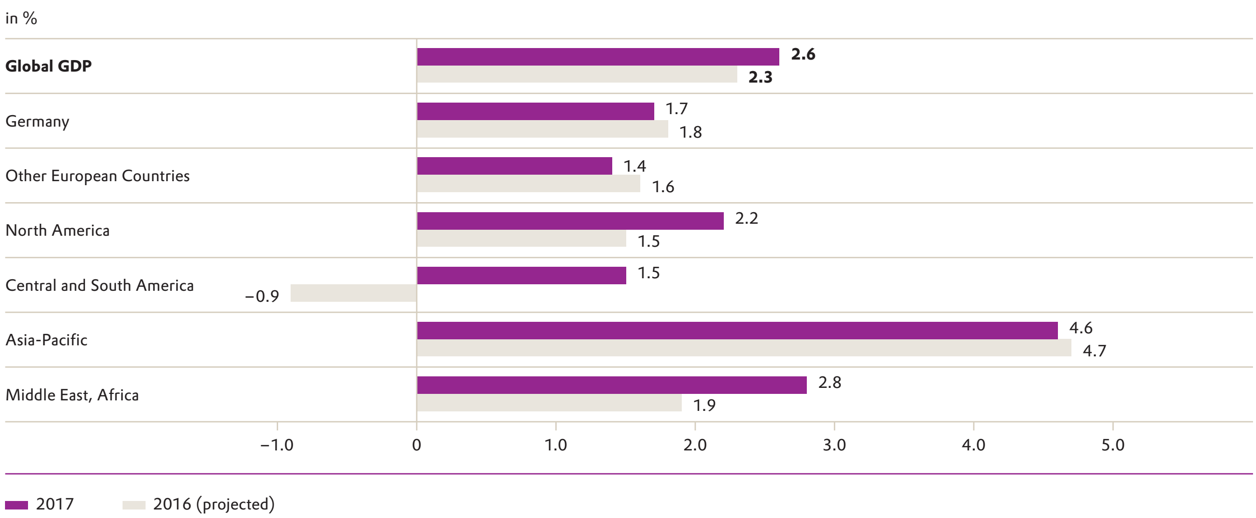
We still see the USA as the keystone of global economic growth and expect the pace of growth to increase to 2.2 percent year-on-year in 2017. The new economic program in the USA includes higher state spending on infrastructure and tax cuts, which should have a positive impact on economic growth. Moreover, 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.

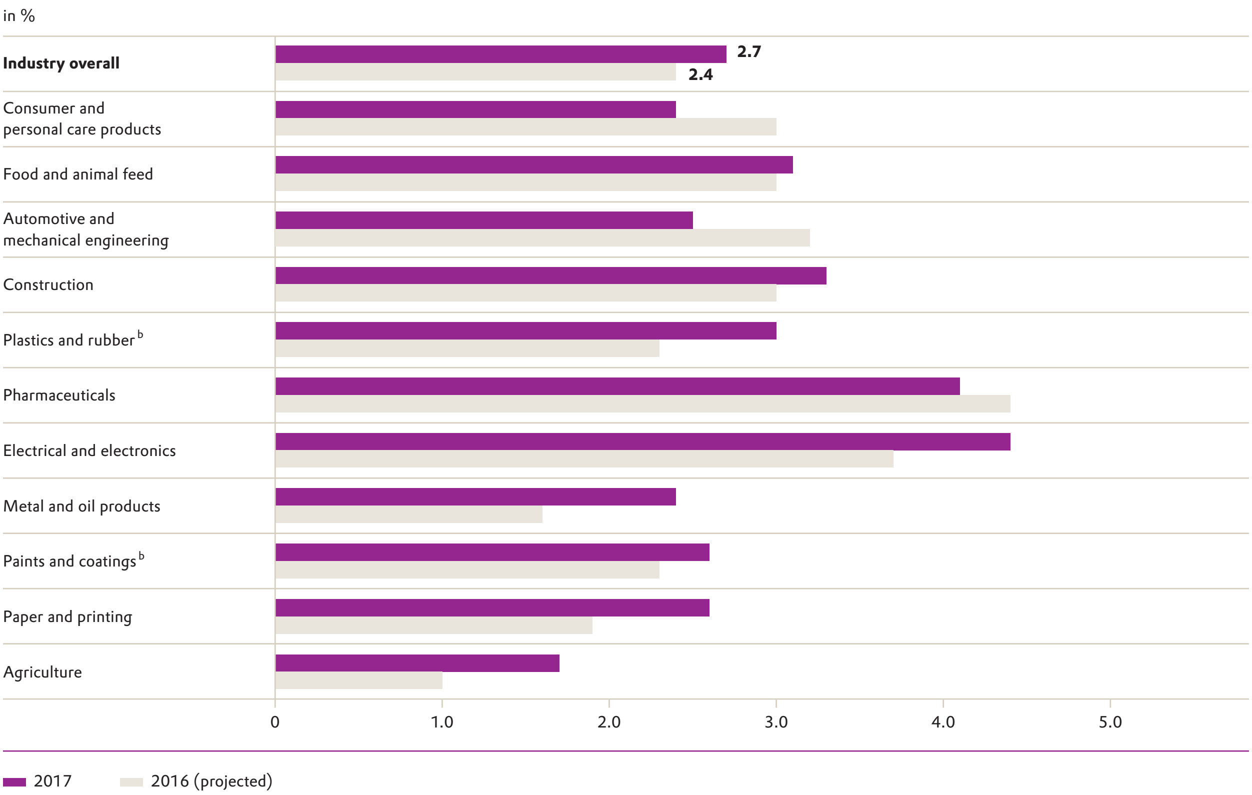
We assume that growth will slow further in China. Given the Chinese government's willingness to take action to support the economy, we nevertheless expect gross domestic product to rise by 6.4 percent in 2017.

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).