

# BASF Report 2015

Economic, environmental and  
social performance



 **BASF**

We create chemistry

## Chemicals

The Chemicals segment comprises our business with basic chemicals and intermediates. Its portfolio ranges from solvents, plasticizers and high-volume monomers to glues and electronic chemicals as well as raw materials for detergents, plastics, textile fibers, paints and coatings, crop protection and medicines. In addition to supplying customers in the chemical industry and numerous other sectors, we also ensure that other BASF segments are supplied with chemicals for producing downstream products.

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### Key data Chemicals (in million €)

	2015	2014	Change in %
Sales	14,670	16,968	(14)
Thereof Petrochemicals	5,728	7,832	(27)
Monomers	6,093	6,337	(4)
Intermediates	2,849	2,799	2
EBITDA	3,090	3,212	(4)
Income from operations before special items	2,156	2,367	(9)
Income from operations (EBIT)	2,131	2,396	(11)

## Performance Products

Our Performance Products lend stability, color and better application properties to many everyday products. Our product portfolio includes vitamins and other food additives in addition to ingredients for pharmaceuticals, personal care and cosmetics, as well as hygiene and household products. Other products from this segment improve processes in the paper industry, in oil, gas and ore extraction, and in water treatment. They furthermore enhance the efficiency of fuels and lubricants, the effectiveness of adhesives and coatings, and the stability of plastics.

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### Key data Performance Products (in million €)

	2015	2014	Change in %
Sales	15,648	15,433	1
Thereof Dispersions & Pigments	4,629	4,501	3
Care Chemicals	4,900	4,835	1
Nutrition & Health	1,998	2,029	(2)
Performance Chemicals	4,121	4,068	1
EBITDA	2,289	2,232	3
Income from operations before special items	1,366	1,455	(6)
Income from operations (EBIT)	1,340	1,417	(5)

## Functional Materials & Solutions

In the Functional Materials & Solutions segment, we bundle system solutions, services and innovative products for specific sectors and customers, especially the automotive, electrical, chemical and construction industries, as well as for household applications and sports and leisure. Our portfolio comprises catalysts, battery materials, engineering plastics, polyurethane systems, automotive and industrial coatings and concrete admixtures as well as construction systems like tile adhesives and decorative paints.

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### Key data Functional Materials & Solutions (in million €)

	2015	2014	Change in %
Sales	18,523	17,725	5
Thereof Catalysts	6,306	6,135	3
Construction Chemicals	2,304	2,060	12
Coatings	3,166	2,984	6
Performance Materials	6,747	6,546	3
EBITDA	2,228	1,678	33
Income from operations before special items	1,649	1,197	38
Income from operations (EBIT)	1,607	1,150	40

## Agricultural Solutions

The Agricultural Solutions segment provides innovative solutions in the areas of chemical and biological crop protection, seed treatment and water management as well as solutions for nutrient supply and plant stress. Our research in plant biotechnology concentrates on plants for greater efficiency in agriculture, better nutrition, and use as renewable raw materials.

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### Key data Agricultural Solutions (in million €)

	2015	2014	Change in %
Sales	5,820	5,446	7
EBITDA	1,321	1,297	2
Income from operations before special items	1,090	1,109	(2)
Income from operations (EBIT)	1,083	1,108	(2)

## Oil & Gas

We focus on exploration and production in oil and gas-rich regions in Europe, North Africa, Russia, South America and the Middle East. Together with our Russian partner Gazprom, we are active in the transport of natural gas in Europe. At the end of the third quarter of 2015, we exited the natural gas trading and storage business previously operated together with Gazprom and, in exchange, are expanding our oil and gas production in western Siberia.

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### Key data Oil & Gas (in million €)

	2015	2014	Change in %
Sales	12,998	15,145	(14)
EBITDA	2,587	2,626	(1)
Income from operations before special items	1,366	1,795	(24)
Income from operations (EBIT)	1,072	1,688	(36)
Net income	1,050	1,464	(28)

# BASF Group 2015 at a glance

## Economic data

		2015	2014	Change in %
Sales	million €	70,449	74,326	(5.2)
Income from operations before depreciation and amortization (EBITDA)	million €	10,649	11,043	(3.6)
Income from operations (EBIT) before special items	million €	6,739	7,357	(8.4)
Income from operations (EBIT)	million €	6,248	7,626	(18.1)
Income from operations (EBIT) after cost of capital	million €	194	1,368	(85.8)
Income before taxes and minority interests	million €	5,548	7,203	(23.0)
Net income	million €	3,987	5,155	(22.7)
Earnings per share	€	4.34	5.61	(22.6)
Adjusted earnings per share <sup>1</sup>	€	5.00	5.44	(8.1)
Dividend per share	€	2.90	2.80	3.6
Cash provided by operating activities	million €	9,446	6,958	35.8
Additions to property, plant and equipment and intangible assets <sup>2</sup>	million €	6,013	7,285	(17.5)
Depreciation and amortization <sup>2</sup>	million €	4,401	3,417	28.8
Return on assets	%	8.7	11.7	-
Return on equity after tax	%	14.4	19.7	-

<sup>1</sup> For more information, see page 55.

<sup>2</sup> Including acquisitions

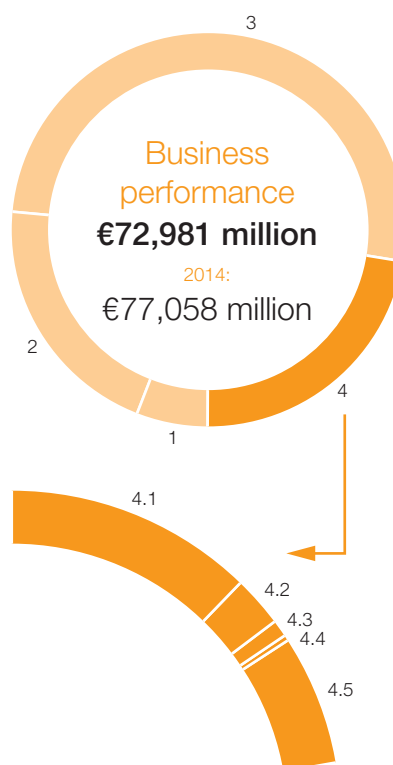
## Value added 2015<sup>3</sup>

### Creation of value added (in million €)

	2015	2014
Business performance	72,981	77,058
1 Amortization and depreciation	(4,401)	(3,417)
2 Services purchased, energy costs and other expenses	(14,787)	(13,259)
3 Cost of raw materials and merchandise	(37,323)	(42,978)
4 <b>Value added</b>	<b>16,470</b>	<b>17,404</b>

### Use of value added

	2015	2014
4.1 Employees	60.6%	53.0%
4.2 Government	9.4%	11.4%
4.3 Creditors	3.9%	4.1%
4.4 Minority interests	1.9%	1.9%
4.5 Shareholders (dividend and retention)	24.2%	29.6%



<sup>3</sup> Value added results from the company's performance minus goods and services purchased, depreciation and amortization. Business performance includes sales revenues, other operating income, interest income and net income from shareholdings. Value added shows the BASF Group's contribution to both private and public income as well as its distribution among all stakeholders.

## Innovation

		2015	2014	Change in %
Research expenses	million €	1,953	1,884	3.7
Number of employees in research and development at year-end		10,010	10,697	(6.4)

## Employees and society

		2015	2014	Change in %
<b>Employees</b>				
Employees at year-end		112,435	113,292	(0.8)
Apprentices at year-end		3,240	3,186	1.7
Personnel expenses	million €	9,982	9,224	8.2
<b>Society</b>				
Donations and sponsorship	million €	56.2	45.4	23.8

## Safety, security, health and the environment

		2015	2014	Change in %
<b>Safety, security and health</b>				
Transportation incidents with significant impact on the environment		0	1	(100)
Process safety incidents	per one million working hours	2.1	2.2	(4.5)
Lost-time injuries	per one million working hours	1.4	1.5	(6.7)
Health Performance Index <sup>4</sup>		0.97	0.91	6.6
<b>Environment</b>				
Primary energy use <sup>5</sup>	million MWh	57.3	59.0	(2.9)
Energy efficiency in production processes	kilograms of sales product/MWh	599	588	1.9
Total water withdrawal	million cubic meters	1,686	1,877	(10.2)
Withdrawal of drinking water	million cubic meters	22.1	22.7	(2.6)
Emissions of organic substances to water <sup>6</sup>	thousand metric tons	17.3	18.7	(7.5)
Emissions of nitrogen to water <sup>6</sup>	thousand metric tons	3.0	3.2	(6.3)
Emissions of heavy metals to water <sup>6</sup>	metric tons	25.1	21.5	16.7
Emissions of greenhouse gases	million metric tons of CO <sub>2</sub> equivalents	22.2	22.4	(0.9)
Emissions to air (air pollutants) <sup>6</sup>	thousand metric tons	28.6	31.5	(9.2)
Waste	million metric tons	2.0	2.1	(4.8)
Operating costs for environmental protection	million €	962	897	7.2
Investments in environmental protection plants and facilities	million €	346	349	(0.9)

<sup>4</sup> For more information, see page 101.

<sup>5</sup> Primary energy used in BASF's plants as well as in the plants of our energy suppliers to cover energy demand for production processes

<sup>6</sup> Excluding emissions from oil and gas production

## Audits along the value chain

		2015	2014	Change in %
<b>Suppliers</b>				
Number of on-site sustainability audits of raw material suppliers		135	120	12.5
<b>Responsible Care Management System</b>				
Number of environmental and safety audits		130	121	7.4
Number of short-notice audits		68	73	(6.8)
Number of occupational medicine and health protection audits		53	48	10.4



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# Welcome to BASF

Our integrated corporate report combines financial and sustainability reporting to inform shareholders, employees and the interested public about the 2015 business year.





**“We add value as one company” – this principle is firmly embedded in our strategy.**

Our actions are centered on developing innovative, sustainable products and solutions for our customers, which we use to meet global challenges.

To do so, we have relied on collaboration with strong partners for 150 years. This key to success was the focus of our anniversary year in 2015. Together, we developed promising contributions to add value. A few of these are outlined on the pages that follow.

←

**Cover photo:**

Experts on food and urban living from a variety of fields exchanged ideas at our Creator Space™ tour in São Paulo. Among them was Eduardo Sekita de Oliveira, Executive Director of Production for an agricultural customer in Brazil, shown here talking with BASF’s Maria Isabel Motta Hoffmann.

**On this page:**

Jamming session in New York: “Graphic recording” was a popular way to keep track of new ideas at this and many other anniversary events in 2015.

# What an anniversary can do

The knowledge and creativity of many minds can give rise to extraordinary ideas. This was the inspiration behind our anniversary program. Dubbed Creator Space™, it was a very special way to celebrate 150 years of BASF. We organized a tour around the world, bringing scientists, customers, employees and partners from all over the globe together at one table and launching an online platform to connect everyone. Ideas were proposed surrounding three main themes: urban living, smart energy and food. We call this “co-creation.” It is one way to fill our idea pipeline for the future and create value.

📺 Watch a video on our anniversary year by searching youtube.com for: “BASF Creator Space – the year 2015 in review”



## 6

### Creator Space™ tour stops

The Creator Space™ tour circumnavigated the globe, offering a broad program of presentations, workshops and cultural events for customers, partners, experts and employees.





**Creator Space™ online**

A wide variety of people shared and discussed their opinions, ideas and suggestions on the interactive online platform set up for our anniversary year.

Visit us at [creator-space.basf.com](http://creator-space.basf.com)

**750** discussions  
**12,700** participants  
**1,700** contributions



**Co-creation activities**

“Co-creation” is a form of creative collaboration between different groups of people, such as customers, partners and employees.



**Idea contests**

Participants contributed ideas and suggestions in worldwide idea contests. Panels of judges reviewed the entries and selected the winners.



**Jamming sessions**

Not only musical jam sessions give rise to creative compositions. We hosted people from various disciplines as they exchanged ideas and developed concepts together.



**3** **Creator Space™ science symposia**  
 International researchers and experts met in global science conventions to discuss new findings and work together on approaches for solutions.

**1.4 million** visitors  
**10,000** people at  
**50** co-creation activities in  
**25** countries

# Which ideas emerged



## URBAN LIVING

### A clean air app

How does growing urbanization affect our planet? And how can we as individuals lead a sustainable lifestyle? These were the questions addressed at the “Creatathon” in Shanghai. The idea: People engage in a highly creative activity for a sustained, uninterrupted period of time. Just like in Shanghai, when BASF invited six college teams to spend 24 hours devoting themselves to developing an app-based, sustainable mobility solution. The goal of the app was to help city dwellers minimize their carbon footprint by selecting the most environmentally friendly mode of transportation. In the end, first place went to the team from East China Normal University: With their “Carbon Coin” idea, consumers can cash in their personal contribution to sustainability as “currency” on an online platform – similar to emissions trading between companies.



**The green way to go:** Megacities like Shanghai are already home to over 20 million people today. That means public transit and other alternate modes of transportation will play an even greater role in reducing emissions in the future.





SMART ENERGY

## The bus to the future

Environmentally friendly technologies, comfortable interiors, a lighter chassis – there was no lack of original ideas and visions at a joint customer innovation workshop. Together with experts from Daimler Buses, BASF employees from various fields discussed solutions for future bus challenges, ranging from special coatings and new lightweight engineering concepts to possibilities for preventing vandalism. This brainstorming gave rise to project ideas providing new inspiration for the bus of the future.

📺 Watch how Daimler and BASF worked together by searching youtube.com for: “Co-creation with Daimler”

### Safe and clean through the city:

Participants at a joint workshop held by BASF and Daimler discussed new technologies and materials for making even more efficient and environmentally friendly vehicles in the future.



FOOD

## Smart watering

How can we reduce food waste and harvest losses? And how can we combat drought and the effects of water scarcity? Students, environmental experts, engineers and city planners were some of the participants at a “creatathon” in São Paulo that focused on solutions for more efficient water use in town and country. First prize went to the most innovative suggestion with the potential for future research and development. The winning team’s idea was to water fields through drip irrigation, where a sensor measures soil moisture to calculate how much water is needed at what time of day.



### Little drops that make an impact:

In many parts of South America, water is a precious commodity. New technologies aim to help keep fields irrigated even in times of lengthy drought.





**Global community:** A new well for an orphanage in Cameroon, a restored temple for residents of Karak in Malaysia – employees around the world got involved in numerous projects addressing social needs.



FOOD / URBAN LIVING

**Employees get involved**

A community needs engaged citizens in order to thrive. BASF helped its employees carry out charitable projects through its global team competition, “Connected to Care.” Around 500 project proposals were submitted from around the globe; 150 of these received up to €5,000 apiece, amounting to a total of €700,000 in support. BASF also promotes employees’ volunteer work outside of its anniversary celebrations, through various regional projects.

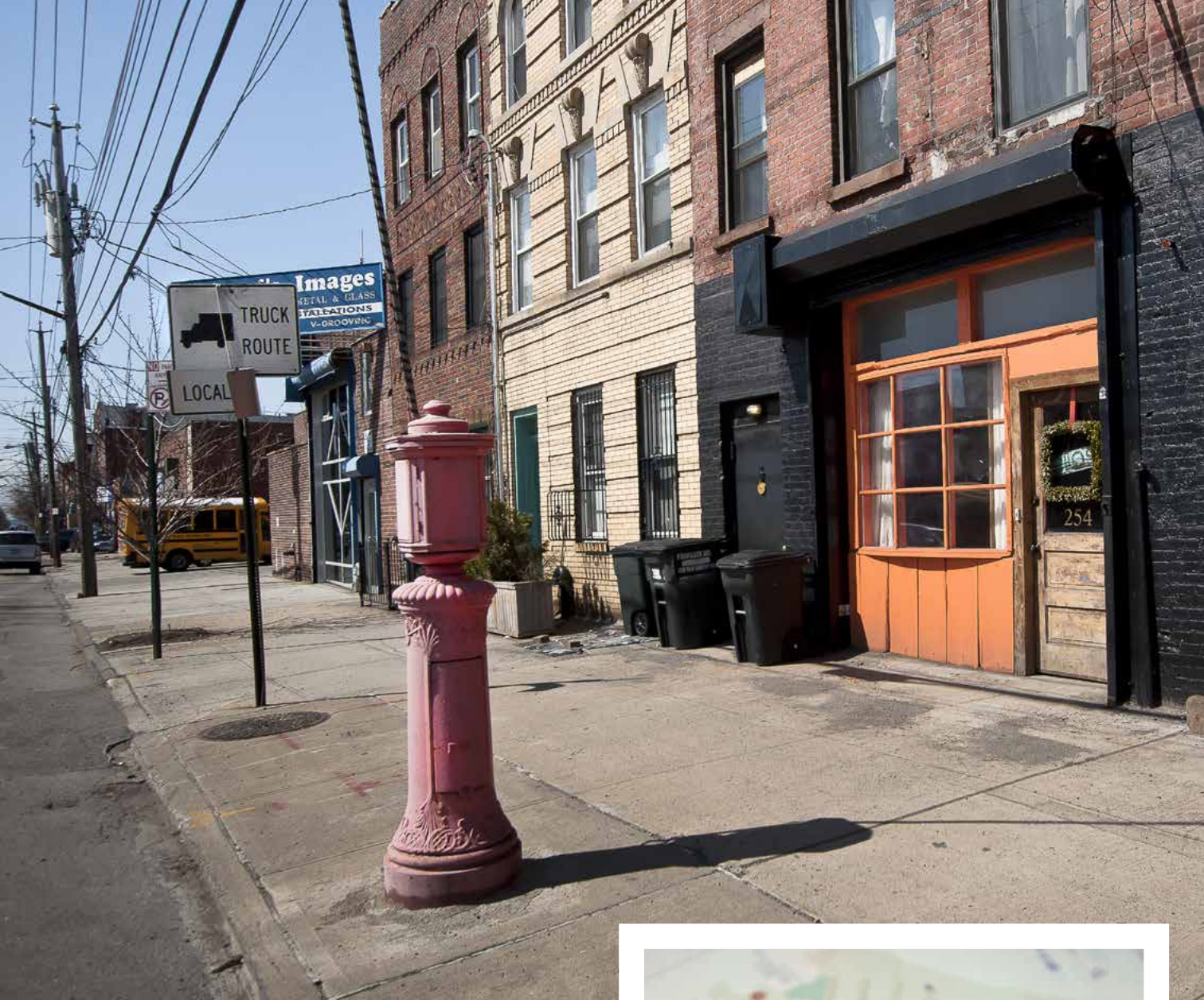
SMART ENERGY

**An energetic partnership**

In Japan, around 50 employees from BASF and Panasonic Automotive & Industrial Systems Company came together in a co-creation workshop to discuss current energy-related topics, ranging from power electronics to sensors and energy harvesting. From numerous innovative suggestions, the companies chose the most promising ideas surrounding the topic “systems for storing heat energy through chemical reactions” as a basis for future collaboration and to benefit from knowledge exchange. Panasonic and BASF, who had not had a partnership prior to the workshop, also plan to work together in research and development. The two companies are currently hashing out the details of the collaboration.





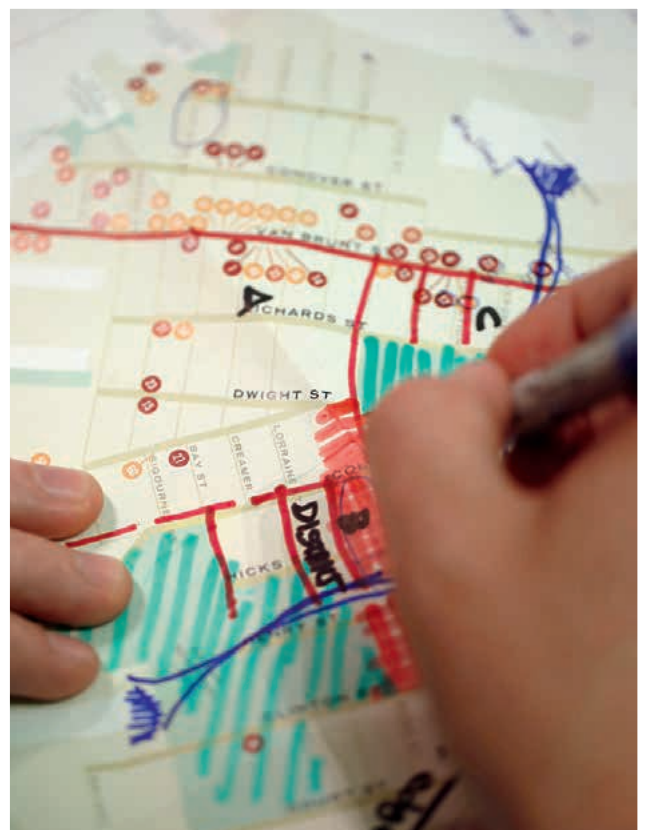


URBAN LIVING

## New York's next trendy neighborhood?

How can we improve urban development and the housing situation in metropolises like New York, where the population is booming? This was the question posed by involved citizens, students, engineers and other participants of a design competition in New York. The assignment: How might Van Brunt Street in Red Hook, Brooklyn, look in the future? The Red Hook neighborhood is marked by limited access to public transportation. Buildings in need of renovation, susceptibility to hurricane and flood damage, and a high level of socio-economic diversity all demand creative and practical solutions to support the neighborhood's future. The winning concept included an ingenious canal system and the idea of invigorating the local economy with a "Made in Red Hook" product label. BASF plans to continue these discussions and use the ideas for concrete proposals to benefit Red Hook and other cities.

📺 Watch videos of our tour stop in New York by searching youtube.com for: "BASF Red Hook"



**Smart design:** How can Red Hook's community be optimally connected to public transportation and gain better access to social and cultural amenities?





URBAN LIVING / FOOD

### A change in perspective

How can we improve access to clean water in a rapidly growing metropolis like Mumbai? Around 250 experts from industry, the nonprofit sector, science and society all set to work on this question. One example was a joint project initiated by BASF and Save the Children, in which several employees dove into everyday life in Mumbai for one week. Some were guests in families who have running water for only 90 minutes a day. It is important for these families to store water in containers. But space is often at a premium, and the water can sometimes get contaminated. For Nitin Sharma, BASF India Ltd., joining a family for a week was an indispensable part of the project: "We can then assess whether and how innovations from BASF can contribute to the solution, whether it's a new material for stackable water containers, an innovative filter system, or a combination of existing systems. It's crucial – for commercial success as well – to understand what the people in the community really need."

**90 minutes of water a day:** For some residents of the Indian metropolis of Mumbai, it is crucial to store drinking water in containers. For one week, employees of BASF and Save the Children learned in person what this means for many families on a daily basis.



**The Museu del Disseny in Barcelona:** For five days, the building played host to the Creator Space™ tour.



SMART ENERGY

**Putting daylight to good use**

In Barcelona, employees from Switzerland won first prize at the jamming session finals on energy efficiency. Their impressive proposal, entitled “Out of the darkness and into the light – intelligent daylight management in buildings,” addressed how less than 40% of available daylight is used in buildings today. The Swiss colleagues developed an idea for electricity-free technology based on microoptic foil that captures up to 95% of daylight and redirects it into the building’s interior. What makes this technology unique is that it does not rely on classic transparent building components, like windows. The application could be used for structures like multi-family houses and office buildings, but also for factories and plants.

URBAN LIVING

**Moving for power**

A group of mobility experts and fitness fans from all over the world got together for a jamming session between BASF and adidas in New York. The topic: the future of urban transportation. The results of the exchange ranged from a smartphone app that networks bicyclists to a floating residential neighborhood on the Hudson River. One promising idea was to establish a volunteer cyclists’ association that generates electricity by riding a bike. This could supply schools, libraries and other community organizations.



**Communal sportsmanship:**

Participants in the jamming session held by BASF and adidas developed an idea for a cycling association that uses the energy generated from pedaling for the public good.

## Our foundation

**€31.5 billion**  
in equity

**€1.95 billion**  
spent on research

**€6.0 billion**  
invested in fixed and  
intangible assets  
(including acquisitions)

**€9.98 billion**  
personnel expenses

**€96 million**  
spent on further  
education



**€35 billion**  
worth of raw materials,  
goods and services  
purchased for own  
production

**€346 million**  
invested in environmental  
protection



**30,000**

different  
raw materials  
procured



**5.8%**

of raw materials  
purchased worldwide  
from renewable resources

**1,686**  
million m<sup>3</sup>  
of water  
abstracted



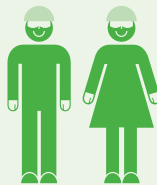
**15.0**  
million MWh  
of electricity  
demand



**39.0**  
million MWh  
of steam  
demand



**77,000**  
participants  
instructed on  
occupational safety  
and  
**19,000**  
on process safety



**75,000**  
employees and  
contractors at over  
**400**  
sites participate in  
worldwide safety initiative

**130**  
environmental,  
safety and  
security audits  
performed at  
**82** sites



**53**  
sites  
audited on  
occupational  
medicine and  
health  
protection

**112,435**  
employees  
worldwide;  
of these  
**3,240**  
apprentices

**Around  
10,000**  
employees in research  
and development



Average of  
**2.5**  
days of further  
training per  
employee per year



**82.9%**  
of our senior  
executives have  
international  
experience.

Numerous options for  
work-life balance offered  
worldwide; in Ludwigshafen,  
for example,  
**600**  
employees make use of  
these opportunities daily.



Our **stakeholders**  
include employees, customers,  
suppliers and shareholders,  
as well as experts in science,  
industry, politics, society  
and media.



**Over  
75,000**  
suppliers

**around 90%**  
of raw materials,  
goods and services  
for own production  
sourced locally

**135**  
raw material  
supplier sites  
audited



**50**  
external  
compliance  
hotlines



## Our business model

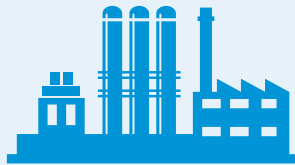
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segments

- Chemicals
- Performance Products
- Functional Materials & Solutions
- Agricultural Solutions
- Oil & Gas

13

operating divisions



Intelligent  
Verbund system

6

Verbund sites and

338

additional production sites worldwide

84

strategic business units

BASF Group  
companies  
in more than

80

countries

Our corporate purpose:

**We create chemistry  
for a sustainable future**

**More than 300,000 customers**

With our **broad portfolio**, we serve customers from many different sectors – from **major global customers** to **local workshops**.

### Market success based on strategic principles

- We add value as one company
- We innovate to make our customers more successful
- We drive sustainable solutions
- We form the best team

### Values as guideline for our conduct and actions

- Creative
- Open
- Responsible
- Entrepreneurial

## Our results

**€70.4 billion**  
in sales, around  
**€10 billion**  
of which from  
innovations on the  
market since 2011

**€6.2 billion**  
in EBIT

**€6.7 billion**  
in EBIT before  
special items

Net income of  
**€4.0 billion**

**€2.90**  
dividend  
per share


**€1.2 billion**  
in income  
taxes

  
**1,626**  
million m<sup>3</sup>  
of water discharged

**22.2 million tons**  
of CO<sub>2</sub> equivalent  
greenhouse gas  
emissions generated

**17.6 million MWh**  
fuel saved through Verbund system

**530 million tons**  
carbon emissions avoided through  
customers' use of BASF products

  
Number of lost-time injuries  
per one million working  
hours drops to  
**1.4**

  
**0**  
transportation incidents  
with significant impact on  
environment

Process safety  
incidents: decline to  
**2.1**  
per one million  
working hours

Over  
**60,000**  
product applications  
assessed and rated  
for aspects of  
sustainability

  
**3,000**  
projects in  
research pipeline

  
**1,000**  
newly registered  
patents worldwide

**19.5%**

Proportion of  
women in  
executive positions

Proportion of  
non-German  
senior executives

**35.6%**

Support of  
**150**  
charitable  
projects with  
**€700,000** and  
**400** employee  
workdays in our  
anniversary year

**€56.2 million**  
spent on donations  
and sponsorship

Involved in  
**U.N. Global Compact**  
since 2000

  
Over  
**600**  
universities, research  
institutions and  
companies within our  
global network

In **4 cases**  
we terminated  
our collaboration  
with suppliers  
as a result of  
unsatisfactory  
sustainability  
performance

  
**357**  
phone calls and  
emails received by  
external compliance  
hotlines

## How we create value

Financial and nonfinancial value drivers make an essential contribution to BASF's success. We want to understand how these work together, and derive targeted measures for increasing the positive impact of our actions and further minimizing the negative effects. This intention forms the basis of our integrated reporting.

The following overview provides examples of how we create value for our company, the environment and society. It is modeled on the framework of the International Integrated Reporting Council (IIRC). Both financial and nonfinancial value drivers – such as environmental, production-related, personnel and knowledge-based factors, along with aspects of society and partnerships – form the **foundation** of our actions. Through our **business model**, these inputs are transformed into various outputs: the **results** of our actions.

## About This Report

### Integrated reporting

This integrated report documents BASF's economic, environmental and social performance in 2015. We use examples to illustrate how sustainability contributes to BASF's long-term success and how we as a company create value for our employees, shareholders, business partners, neighbors and the public.

### Further information

The following symbols indicate important information for the reader:

 You can find more information within the report.

 You can find more information online.

 This section shows how the ten principles of the U.N. Global Compact and the Blueprint for Corporate Sustainability Leadership are implemented.

 If the symbol is underlined, the entire chapter is relevant.

### The BASF Report online

HTML version with additional features: [basf.com/report](http://basf.com/report)

PDF version available for download: [basf.com/basf\\_report\\_2015.pdf](http://basf.com/basf_report_2015.pdf)




## Content and structure

- As an integrated report, the BASF Report also serves as progress report with regard to U.N. Global Compact
- Sustainability reporting follows Global Reporting Initiative's G4 "comprehensive" international guidelines

The BASF Report combines the major financial and non-financial information necessary to thoroughly evaluate our performance. We select the report's topics based on the principles of materiality, sustainability context, completeness, balance, and stakeholder inclusion. In addition to our integrated report, we publish further information online. Links to this supplementary information are provided in each chapter.

Our reporting on sustainability issues has been aligned with the Global Reporting Initiative (GRI) framework since 2003. In the BASF Report 2015, our sustainability reporting follows the GRI's G4 "comprehensive" international guidelines. We served as a pilot enterprise in the development of the framework for integrated reporting of the International Integrated Reporting Council (IIRC). Following this pilot phase, we have been active in the IR Business Network since 2014 in order to discuss our experience with other stakeholders and at the same time receive inspiration for enhancing our reporting. This report addresses elements of the IIRC framework by, for example, illustrating connections between nonfinancial and financial performance in the chapters for the segments.

The information in the BASF Report 2015 also serves as a progress report on BASF's implementation of the ten principles of the United Nations Global Compact and takes into consideration the Blueprint for Corporate Sustainability Leadership of the Global Compact LEAD platform.


The GRI and Global Compact Index can be found in the online report, providing information on GRI indicators, topics relevant to the Global Compact principles, and the auditor's report of KPMG AG Wirtschaftsprüfungsgesellschaft. 

 The 2015 Online Report can be found at [basf.com/report](http://basf.com/report)

For more on sustainability, see [basf.com/sustainability](http://basf.com/sustainability)

For more on the Global Compact, the implementation of the Global Compact principles, Global Compact LEAD and Blueprint for Corporate Sustainability Leadership, see [globalcompact.org](http://globalcompact.org) and [basf.com/en/global-compact](http://basf.com/en/global-compact)

The GRI and Global Compact Index can be found at [basf.com/en/gri-gc](http://basf.com/en/gri-gc)

 An illustrated example of BASF's business model as geared toward the IIRC framework can be found in the introduction under "How we create value"

## Requirements and topics

- Financial reporting according to International Financial Reporting Standards, German Commercial Code and German Accounting Standards
- Sustainability reporting focused on material topics

The information on the financial position and performance of the BASF Group is based on the requirements of International Financial Reporting Standards (IFRS), and, where applicable, the German Commercial Code as well as the German Accounting Standards (GAS). Internal control mechanisms ensure the reliability of the information presented in this report. BASF's management confirmed the effectiveness of the internal control measures and compliance with the regulations for financial reporting.

The results of the materiality analysis and the material topics derived from them – such as energy and climate, water, resources and ecosystems, responsible production, and employment and employability – define our report and provide its focus.

 For more on the Global Reporting Initiative, see [globalreporting.org](http://globalreporting.org)

For more on our selection of sustainability topics, see page 31 onward and [basf.com/materiality](http://basf.com/materiality)



## Data

### ■ Relevant information included up to editorial deadline of February 23, 2016

All information and bases for calculation in this report are founded on national and international standards for financial and sustainability reporting. The data and information for the reporting period were sourced from the expert units responsible using representative methods. The reporting period was the 2015 business year. To make this report as current as possible, we have included relevant information available up to the editorial deadline of February 23, 2016. The report is published each year in English and German.

BASF Group's scope of consolidation for its financial reporting comprises BASF SE, with its headquarters in Ludwigshafen, Germany, and all of its fully consolidated material subsidiaries and proportionally included joint operations. Shares in joint ventures and associated companies are accounted for, if material, using the equity method in the BASF Group Consolidated Financial Statements.

The chapter "Working at BASF" refers to employees active in a company within the BASF Group scope of consolidation as of December 31, 2015. Our data collection methods for environmental protection and occupational safety are based on the recommendations of the European Chemical Industry Council (CEFIC). In the chapter on "Safety, Security, Health and the Environment," we report all data on the emissions and waste of the worldwide production sites of BASF SE, its subsidiaries, and joint operations based on our stake. Work-related accidents at all sites of BASF SE and its subsidiaries as well as joint operations and joint ventures in which we have sufficient authority in terms of safety management, are compiled worldwide regardless of our stake and reported in full. Further data on social responsibility and transportation safety refers to BASF SE and its subsidiaries unless otherwise indicated.

 For more on companies accounted for in the Consolidated Financial Statements, see the Notes from page 173 onward

For more on emissions, see page 105

The Consolidated Financial Statements begin on page 153

 For an overview of the restated figures for 2014, see [basf.com/publications](http://basf.com/publications)

## External audit and evaluation

Our reporting is audited by a third party. KPMG AG Wirtschaftsprüfungsgesellschaft has audited the BASF Group Consolidated Financial Statements and the Management's Report and has approved them free of qualification. The audit of the Consolidated Financial Statements including the Notes is based on the likewise audited financial statements of the BASF Group companies.

Statements and figures pertaining to sustainability in the Management's Report and Consolidated Financial Statements are also audited. The audit was conducted using the International Standard of Assurance Engagements 3000 and the International Standard of Assurance Engagements 3410, the relevant auditing standards for sustainability reporting. The additional content provided on the BASF internet sites indicated in this report is not part of the information audited by KPMG.

 The Auditor's Report can be found on page 156

 The Assurance Report on sustainability information in the BASF Report 2015 can be found at [basf.com/sustainability\\_information](http://basf.com/sustainability_information)

## Forward-looking statements

This report contains forward-looking statements. These statements are based on current estimates and projections of BASF management and currently available information. Future statements are not guarantees of the future developments and results outlined therein. These are dependent on a number of factors; they involve various risks and uncertainties; and they are based on assumptions that may not prove to be accurate. Such factors include those discussed in the Opportunities and Risks Report from pages 113 to 120. We do not assume any obligation to update the forward-looking statements contained in this report.

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## Dear Shareholder,

As this report goes to print, we are looking back at one of the most turbulent starts to the year for decades. At times, oil prices fell to below \$27 per barrel – the lowest level since 2003. In 2015, oil prices averaged \$52 per barrel, almost half the previous year's figure. This price slump reflects not only an oil surplus but also a slowdown in global economic growth, especially in emerging markets. Our share price has also suffered from these developments. Since the beginning of the year it has fallen significantly to below €60 and is thus substantially lower than the peak of nearly €97 in April 2015.

These figures underline the level of uncertainty about the future performance of the global economy. This raises some legitimate questions: How will demand for chemical products develop? What will be the impact if oil prices remain low for any length of time? How does one steer a company like BASF in such turbulent and challenging times?

A look back at the past year provides some initial answers to these questions. Compared with 2014, our goals for 2015 were to increase sales slightly and match the high level of income from operations (EBIT) before special items. This was based on the assumption that higher earnings from our chemicals activities would compensate for the expected decline in earnings in our Oil & Gas segment due to lower oil prices. We planned with oil prices in the range of \$60 to \$70 per barrel.

The start to 2015 confirmed these goals: Although volume growth weakened in the first quarter, margins developed satisfactorily and oil prices moved in the direction of the expected corridor. However, the first signs of an economic slowdown also became apparent – especially in emerging economies. Important industries such as agriculture and automotive developed more weakly than expected. In contrast, the U.S. economy proved relatively robust. The weakness of the euro supported the competitiveness of our European sites.

“In our chemicals business, the oil price initially had a positive impact on margins. Soon, however, it was clear that our customers were becoming increasingly cautious.”

In our chemicals business, the oil price initially had a positive impact on margins. Soon, however, it was clear that our customers were becoming increasingly cautious. They held back from ordering – in the expectation of further declines in prices for chemical products. Pressure on margins increased in the course of the year, particularly in the fourth quarter.

In such a situation it helps to build on the strengths of BASF and keep costs and cash under control. We were quick to adapt production to reflect weaker demand, reduced inventories and thus strengthened cash flow. Our STEP excellence program, which had been running since 2012, was completed faster than originally planned and we therefore launched a new program – Drive – in September. It is expected to contribute €1 billion to earnings annually by the end of 2018.

At the end of the third quarter, we completed the divestiture of our gas trading and storage business to Gazprom. This business contributed approximately €10 billion to sales and €260 million to EBIT before special items in the first three quarters of 2015. In combination with the further fall in oil prices, it became apparent at the end of October that we would probably not reach our annual goals. In 2015, EBIT before special items was 8% lower than in 2014, although we improved earnings in the chemicals business as planned. EBIT fell by 18%, in particular due to price-related impairments to assets in the Oil & Gas segment. As a result, oil prices thwarted our plans in 2015.

As the Board of Executive Directors, we cannot be satisfied with last year's performance. Nevertheless, the BASF team did a good job. On behalf of the Board of Executive Directors, I thank all employees for their efforts in what was a challenging year.

“We remain committed to our ambitious dividend policy and will again propose to the Annual Shareholders' Meeting to increase the dividend by €0.10 to €2.90 per share.”

We remain committed to our ambitious dividend policy and will again propose to the Annual Shareholders' Meeting to increase the dividend by €0.10 to €2.90 per share. As a result, we would pay out almost €2.7 billion to our shareholders. Based on the year-end price of €70.72 for 2015, BASF shares again offer a high dividend yield of around 4.1%.

What do we expect in 2016? We assume that oil prices will remain low and are basing our planning on \$40 per barrel. As a consequence and in particular due to the divestiture of our gas trading and storage business, sales will decline significantly. We aim to increase sales volumes in our chemicals and agricultural solutions businesses and above all ensure better utilization of the capacities that came on stream in 2015. This is an ambitious goal because our markets are likely to grow more slowly than in 2015.

We expect to achieve a slightly lower level of EBIT before special items than in 2015. We want to again increase earnings in our chemicals and crop protection businesses, but this will not be sufficient to compensate for the massive decline in earnings in the oil and gas business. The oil price will continue to be the biggest risk in 2016. If it should remain below our expected average of \$40 per barrel, then we will be unlikely to offset this by means of higher earnings in the chemicals business.

“We expect to achieve a slightly lower level of EBIT before special items than in 2015. The oil price will continue to be the biggest risk in 2016.”

Strict cost and expenditure discipline will therefore also be top priority in 2016. This applies in particular to cutting back on capital expenditures, which we will reduce significantly following the increase in 2013 to 2015. A special challenge in this area will be in adjusting expenditures for the development of oil and gas fields.

We will continue to actively manage our portfolio. In 2015, we made a number of smaller, technology-driven acquisitions, but we also streamlined our portfolio. We divested parts of our pharmaceutical ingredients business and are preparing the sale of our industrial coatings business. As a result, we will be able to concentrate even more closely on particularly promising areas of activity. In the future, we will continue to review possible acquisitions very critically as to whether they actually create value for our shareholders. Not everything that is en vogue meets this criterion.

Research and development and thus innovations remain at the heart of our competitiveness. In 2015, we reached our goal of achieving sales of around €10 billion with new and improved products that have been on the market for less than five years. Following a significant increase in research and development spending in the past years, we plan to maintain expenditure at the previous year's level in 2016. Our goal is to convince our customers by continually offering new products and solutions. Since customers are increasingly focusing on sustainability, we see business opportunities that we want to seize through our innovations. We will further increase the proportion of sales from products that contribute particularly to sustainability.

“Research and development and thus innovations remain at the heart of our competitiveness. Our goal is to convince our customers by continually offering new products and solutions.”

Innovation and cooperation with our partners also played a central role in our 150th anniversary year. The wide range of activities, which you will also find in this report, reflect the dynamics of our industry and the contributions that chemistry and BASF – together with its customers – make towards enabling a better life, technical progress and efficient use of resources. This power and dynamism are hallmarks of BASF – both when the company was founded 150 years ago and also today.

Yours,



Kurt Bock

## The Board of Executive Directors of BASF SE

### At events in our 2015 anniversary year

#### Dr. Kurt Bock

*Jugend forscht* national youth science competition,  
Ludwigshafen, Germany



#### Dr. Martin Brudermüller

Employee celebration event,  
Ludwigshafen, Germany

#### Michael Heinz

Creator Space™ tour, São Paulo, Brazil



#### Wayne T. Smith

Science symposium, Chicago, Illinois



**Dr. Hans-Ulrich Engel**  
Employee celebration event,  
Ludwigshafen, Germany



**Sanjeev Gandhi**  
Science symposium, Shanghai, China

**Dr. Harald Schwager**  
Creator Space™ tour, Barcelona, Spain



**Margret Suckale**  
Creator Space™ tour, Ludwigshafen, Germany





## BASF on the capital market

<p><b>€70.72</b></p> <p>BASF share closing price up by 1.2% year-on-year</p>	<p><b>€2.90</b></p> <p>Proposed dividend per share</p>	<p><b>DJSI World, CDLI</b></p> <p>BASF once again included in sustainability indexes</p>
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Stock markets were marked by a high level of volatility in 2015. This was largely a factor of fickle economic development, slowdown in the emerging markets and the threat of Greece's payment default. In this volatile environment, the BASF share rose by 1.2%, trading at €70.72 at the end of 2015. We stand by our ambitious dividend policy and will propose a dividend of €2.90 per share at the Annual Shareholders' Meeting – an increase of 3.6% compared with the previous year. BASF enjoys solid financing and good credit ratings.

### BASF share performance

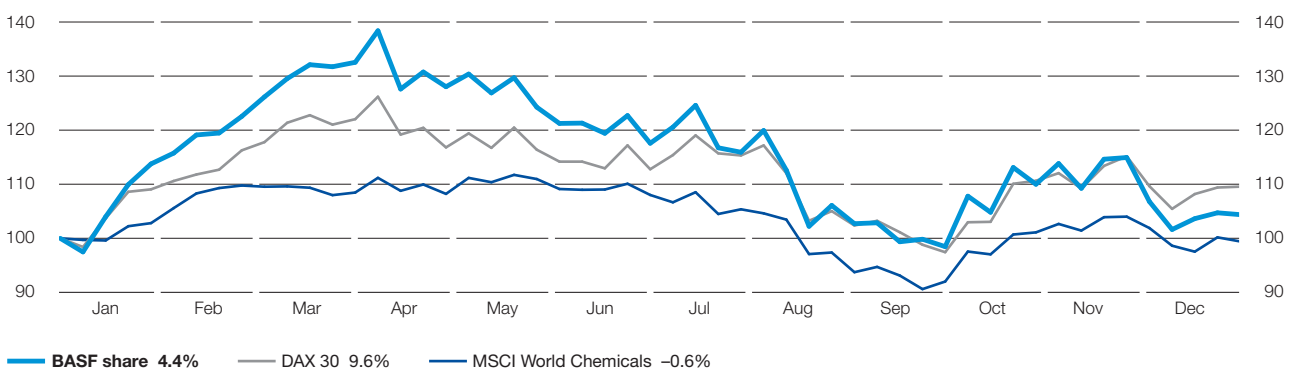
- Stock markets fluctuate widely over course of year
- BASF share gains 1.2% in 2015
- Ten-year development continues to clearly outperform benchmark indexes

The weak euro and the European Central Bank's (ECB) announced intention to purchase large amounts of additional bonds both provided the stock markets with a positive start to 2015. On April 10, 2015, new record highs were achieved as the German benchmark index DAX 30 closed at 12,375 points and the BASF share price at €96.72. As the second quarter progressed, concerns – especially about Greece's financial solvency – led to share price losses. The second half of the year saw the market rebound as European finance ministers approved the third bailout package for Greece and the

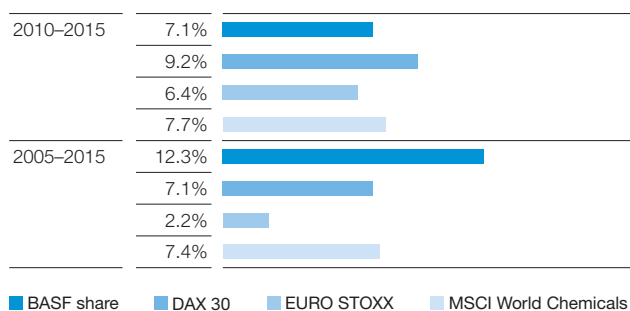
eurozone produced robust economic figures. This was followed by considerable dips, due in large part to the weak economic situation in China and severe recession in Brazil. The further depreciation of the euro, positive economic development and speculation as to a renewed expansion of the ECB's monetary policy initially led to a fourth-quarter boost in share prices, including the BASF share. Prices dropped again in December, however, after the ECB announced intentions to continue easing its monetary policy, a decision that disappointed many investors who had anticipated more expansive measures.

BASF shares traded at €70.72 at the end of 2015, 1.2% above the previous year's closing price. Assuming that dividends were reinvested, BASF shares gained 4.4% in value in 2015. This did not match the performance of the German and European stock markets, whose benchmark indexes DAX 30 and DJ EURO STOXX 50 gained 9.6% and 6.4% over the same period, respectively. As for the global industry indexes, DJ Chemicals fell by 3.3% in 2015 while MSCI World Chemicals declined by 0.6%. Viewed over a ten-year period, the long-term performance of BASF shares still clearly outperforms these indexes. The assets of an investor who invested €1,000 in BASF shares at the end of 2005 and reinvested the dividends in additional BASF shares would have increased to €3,195 by the end of 2015. This represents a yield of 12.3% each year, placing BASF shares above the returns for the DAX 30 (7.1%), EURO STOXX 50 (2.2%) and MSCI World Chemicals (7.4%) indexes.

**Change in value of an investment in BASF shares in 2015**  
(With dividends reinvested; indexed)



**Long-term performance of BASF shares compared with indexes**  
 (Average annual increase with dividends reinvested)



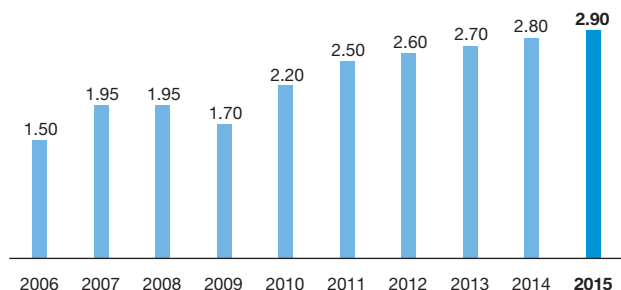
**Weighting of BASF shares in important indexes as of December 31, 2015**

DAX 30	7.4%
DJ Chemicals	5.9%
MSCI World Index	0.2%

**Proposed dividend of €2.90 per share**

At the Annual Shareholders' Meeting, the Board of Executive Directors and the Supervisory Board will propose a dividend payment of €2.90 per share. We stand by our ambitious dividend policy and plan to pay out almost €2.7 billion to our shareholders. Based on the year-end share price for 2015, BASF shares offer a high dividend yield of around 4.1%. BASF is part of the DivDAX share index, which contains the fifteen companies with the highest dividend yield in the DAX 30. We aim to increase our dividend each year, or at least maintain it at the previous year's level.

**Dividend per share<sup>1</sup> (€ per share)**



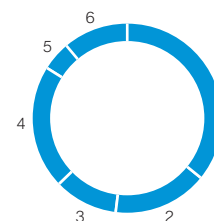
<sup>1</sup> Adjusted for two-for-one stock split conducted in 2008

**Broad base of international shareholders**

With over 500,000 shareholders, BASF is one of the largest publicly owned companies with a high free float. An analysis of the shareholder structure carried out at the end of 2015 showed that, at 16% of share capital, the United States and Canada made up the largest regional group of institutional investors. Institutional investors from Germany accounted for 9%. Shareholders from the United Kingdom and Ireland hold just under 11% of BASF shares, while institutional investors from the rest of Europe hold a further 21% of capital. Approximately 27% of the company's share capital is held by private investors, most of whom reside in Germany. BASF is therefore one of the DAX 30 companies with the largest percentage of private shareholders.

**Shareholder structure (by region)**

1	Germany	36%
2	United States and Canada	16%
3	United Kingdom and Ireland	11%
4	Rest of Europe	21%
5	Rest of world	5%
6	Not identified	11%



**Employees becoming shareholders**

In many countries, we offer share purchase programs that turn our employees into BASF shareholders. In 2015, for example, around 21,600 employees (2014: 23,200) purchased employee shares worth about €60 million (2014: €62 million).

[For more on employee share purchase programs, see page 47](#)

## BASF a sustainable investment

- **BASF once again part of DJSI World in 2015**
- **CDLI: inclusion once again shows BASF's transparent reporting on climate protection**

In September 2015, BASF shares were included in the Dow Jones Sustainability World Index (DJSI World) for the fifteenth year in succession. As one of the most well-known sustainability indexes, the DJSI World represents the top 10% of the 2,500 largest companies in the S&P Global Broad Market Index based on economic, environmental and social criteria.

CDP, an international organization that analyzes companies' climate protection data, has placed BASF among the leading companies in the world for climate protection reporting. With the highest possible ratings for reporting transparency and completeness, we achieved top scores among DAX companies and in the Energy & Materials sector in 2015, thus qualifying for the Climate Disclosure Leadership Index (CDLI) for the eleventh time. The CDP represents 822 institutional investors with around \$95 trillion in assets under management. Investors use CDP indexes as assessment tools.

In 2015, BASF was unable to qualify for the Carbon Performance Leadership Index (CPLI), which judges companies' climate protection activities. Inclusion in the CPLI requires a considerable reduction in greenhouse gas emissions compared with the previous year (-4%). Measures already taken in previous years are not eligible for consideration. BASF has already implemented numerous greenhouse gas reduction measures in the past that have decreased absolute emissions by just under 50% since 1990 (BASF business excluding the Oil & Gas segment). Further significant improvements at this high level can only be achieved with difficulty, which meant that we were unable to meet the CPLI's high reduction requirements.

📄 For more on the key sustainability indexes, see [basf.com/sustainabilityindexes](http://basf.com/sustainabilityindexes)

📖 For more on energy and climate protection, see page 105 onward

## Good credit ratings and solid financing

BASF has good credit ratings, especially in comparison with competitors in the chemical industry. BASF was rated "A1/P-1/outlook stable" by rating agency Moody's and "A+/A-1/outlook negative" by Standard & Poor's. We have solid financing. At the end of 2015, the financial indebtedness of the BASF Group was €15.2 billion with liquid funds of €2.2 billion. The average maturity of our financial indebtedness was 5.2 years. The company's medium to long-term debt financing is predominantly based on corporate bonds with a balanced maturity profile. For short-term debt financing, BASF SE has a commercial paper program with an issuing volume of up to \$12.5 billion. As backup for the commercial paper program, there are committed, broadly syndicated credit lines of €6 billion available; these are not being used at this time.

📖 For more on financial indebtedness and maturities, see page 58 onward and the Notes from page 206 onward

## Analysts' recommendations

Around 25 financial analysts regularly publish studies on BASF. At the end of 2015, 32% recommended buying our shares (end of 2014: 41%) and 40% recommended holding them (end of 2014: 38%), while 28% had a sell rating (end of 2014: 21%). On December 31, 2015, the average target share price according to analyst consensus estimates was €76.86.

📄 Continuously updated consensus estimates on BASF are available at [basf.com/share](http://basf.com/share)

## Close dialog with the capital market

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- [Roadshows for institutional investors and talks with rating agencies](#)
- [Investor Day in Ludwigshafen](#)
- [Information events for retail investors](#)
- [BASF's Investor Relations receives multiple awards](#)

Our corporate strategy aims to create long-term value. We support this strategy through regular and open communication with all capital market participants. To keep institutional investors and rating agencies informed, we host numerous one-on-one meetings and roadshows worldwide. We also hold informational events to provide private investors with insight into BASF.

At the end of September, we discussed the implementation of our “We create chemistry” strategy with analysts and investors at an Investor Day held in Ludwigshafen. The members of our Board of Executive Directors as well as our divisional presidents presented all five segments and their operating divisions to around a hundred guests. We used numerous examples to illustrate how BASF's innovations are used in key customer industries.

 For more on our “We create chemistry” strategy, see page 24 onward

In 2015, we once again put on roadshows geared specifically toward investors who base their investment decisions on sustainability criteria. There, we especially outlined our measures for climate protection and energy efficiency. In addition, we conducted several special creditor relations roadshows, where creditors and credit analysts could learn more about our business and our financing strategy.

Investors can find comprehensive information about BASF and BASF shares on our website and on social media platforms.

Analysts and investors have confirmed the quality of our communication work: We took several leading rankings in Institutional Investor Magazine's annual survey in 2015. These included first prize in the Best Analyst Days in Europe (Chemicals) category for the Chemicals Investor Day held in London in 2014. Moreover, our investor relations activities were honored by the U.K.'s Investor Relations Society with first place in the “International” category.

 For more on investor relations, see [basf.com/share](http://basf.com/share)

Register for the newsletter with current topics and dates at [basf.com/share/newsletter](http://basf.com/share/newsletter)

Contact the Investor Relations team by phone at +49 621 60-48230 or email [ir@basf.com](mailto:ir@basf.com)

**Key BASF share data<sup>1</sup>**

		2011	2012	2013	2014	2015
Year-end price	€	53.89	71.15	77.49	69.88	70.72
Year high	€	69.40	73.09	78.97	87.36	96.72
Year low	€	43.66	51.89	64.79	65.61	65.74
Year average	€	57.02	62.17	71.96	77.93	79.28
Daily trade in shares <sup>2</sup>						
	million €	265.7	205.6	200.8	224.5	264.5
	million shares	4.7	3.3	2.8	2.9	3.3
Number of shares December 31	million shares	918.5	918.5	918.5	918.5	918.5
Market capitalization December 31	billion €	49.5	65.4	71.2	64.2	65.0
Earnings per share	€	6.74	5.25	5.22	5.61	4.34
Adjusted earnings per share	€	6.26	5.64	5.31	5.44	5.00
Dividend per share	€	2.50	2.60	2.70	2.80	2.90
Dividend yield <sup>3</sup>	%	4.64	3.65	3.48	4.01	4.1
Payout ratio	%	37	50	52	50	67
Price-earnings ratio (P/E ratio) <sup>3</sup>		8.0	13.6	14.8	12.5	16.3

<sup>1</sup> The figures for the 2011 business year were not restated according to the new accounting and reporting standards IFRS 10 and 11.

<sup>2</sup> Average, Xetra trading

<sup>3</sup> Based on year-end share price

**Further information on BASF share**

Securities code numbers	
Germany	BASF11
Great Britain	0083142
Switzerland	323600
United States (CUSIP Number)	055262505
ISIN International Securities Identification Number	DE000BASF111
International ticker symbol	
Deutsche Börse	BAS
London Stock Exchange	BFA
Swiss Exchange	AN

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# The BASF Group

<p><b>Global leader</b></p> <p>BASF is the world's leading chemical company</p>	<p><b>In 80+ countries</b></p> <p>Employees contribute to our success</p>	<p><b>Broad portfolio</b></p> <p>5 segments 13 divisions 84 strategic business units</p>
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At BASF, we create chemistry for a sustainable future. As the world's leading chemical company, we combine economic success with environmental protection and social responsibility. The approximately 112,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is arranged into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas.

## Organization of the BASF Group

- Thirteen divisions grouped into five segments
- Regional divisions, corporate units and competence centers support our business

Since the beginning of 2015, thirteen divisions divided into five segments bear operational responsibility and manage our 61 global and regional business units. The divisions develop strategies for our 84 strategic business units and are organized according to sectors or products.

At the end of September, we rearranged our activities in the Oil & Gas segment, which are bundled into the Wintershall Group. As part of the asset swap with our partner Gazprom, we handed over our shares in the previously jointly run natural gas trading and storage business and in return are expanding our oil and gas production in western Siberia. We continue to operate the natural gas transport business together with Gazprom, but do not report on it separately.

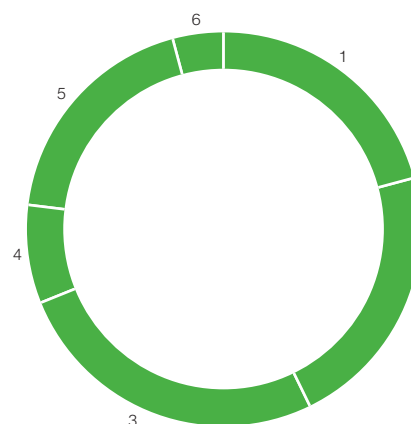
The regional divisions contribute to the local development of our business and help exploit market potential. They are also responsible for optimizing infrastructure for our business. For financial reporting purposes, our divisions are organized into the following four regions: Europe; North America; Asia Pacific; and South America, Africa, Middle East.

Three central divisions, six corporate units and ten competence centers provide services for the BASF Group in areas such as finance, investor relations, communications, human resources, research, engineering, and site management, as well as environment, health and safety.

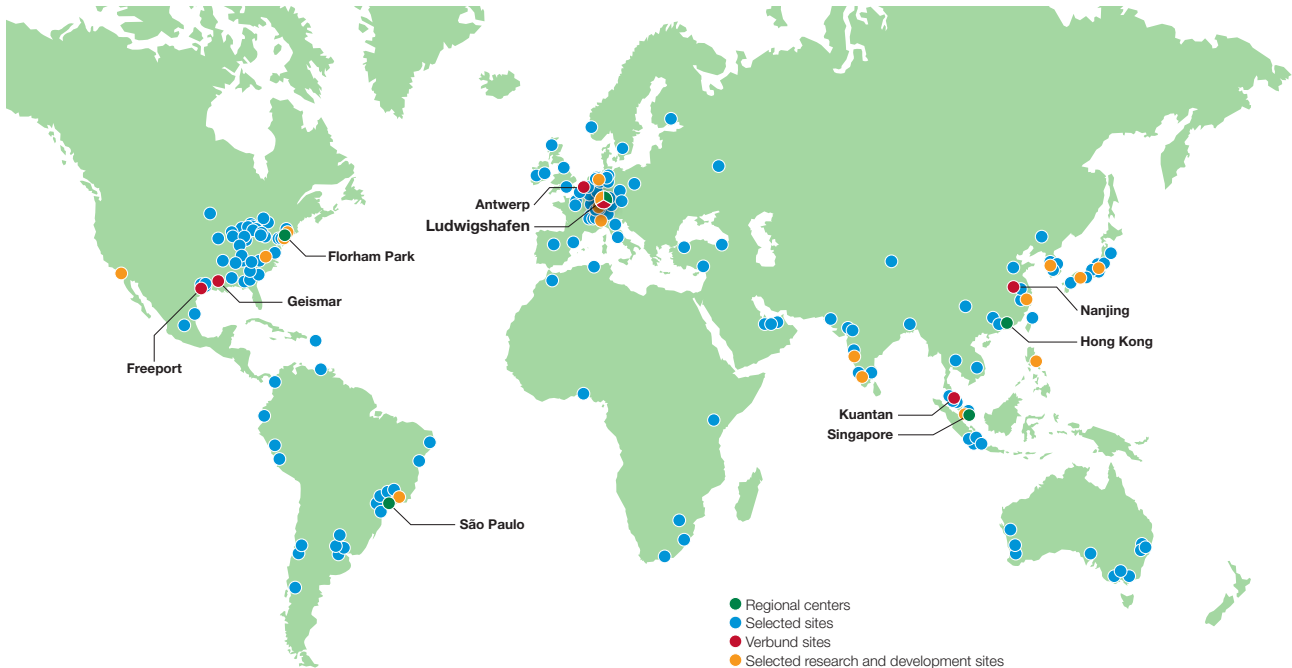
### BASF structure

Percentage of total sales in 2015

1	Chemicals	<ul style="list-style-type: none"> <li>- Petrochemicals</li> <li>- Monomers</li> <li>- Intermediates</li> </ul>	21%
2	Performance Products	<ul style="list-style-type: none"> <li>- Dispersions &amp; Pigments</li> <li>- Care Chemicals</li> <li>- Nutrition &amp; Health</li> <li>- Performance Chemicals</li> </ul>	22%
3	Functional Materials & Solutions	<ul style="list-style-type: none"> <li>- Catalysts</li> <li>- Construction Chemicals</li> <li>- Coatings</li> <li>- Performance Materials</li> </ul>	26%
4	Agricultural Solutions	<ul style="list-style-type: none"> <li>- Crop Protection</li> </ul>	8%
5	Oil & Gas	<ul style="list-style-type: none"> <li>- Oil &amp; Gas (Exploration &amp; Production; Natural Gas Trading)</li> </ul>	19%
6	Other		4%



**BASF sites**



**Markets and sites**

- BASF with companies in more than 80 countries
- Six Verbund sites and 338 additional production sites worldwide

BASF has companies in more than 80 countries and supplies products to a large number of business partners in nearly every part of the world. In 2015, we generated 42% of our sales (excluding Oil & Gas) with customers in Europe. In addition, 27% of sales were achieved in North America; 22% in Asia Pacific; and 9% in South America, Africa, Middle East. Based on the entire BASF Group, 52% of our sales were to customers in Europe, 22% in North America, 18% in Asia Pacific and 8% in South America, Africa, Middle East.

We operate six Verbund sites and 338 additional production sites worldwide. Our Verbund site in Ludwigshafen is the world's largest integrated chemical complex. This was where the Verbund principle was originally developed and steadily honed before being put into practice at additional sites.

**Verbund**

- Intelligent plant networking in the Production Verbund
- Technology and Know-How Verbund

The Verbund system is one of BASF's great strengths. Here, we add value as one company by making efficient use of our resources. The Production Verbund, for example, intelligently links production units and energy demand so that waste heat can be used as energy in other plants. Furthermore, by-products of one plant can serve as feedstock elsewhere. In this system, chemical processes run with lower energy consumption and higher product yield. This not only saves us raw materials and energy, it also avoids emissions, lowers logistics costs and makes use of synergies.

We also make use of the Verbund principle for more than production, applying it for technologies, knowledge, employees, customers, and partners, as well. Expert knowledge is pooled into our global research platforms. 🌐

🖱 For more on the Verbund concept, see [basf.com/en/verbund](http://basf.com/en/verbund)



## Competitive environment

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BASF holds one of the top three market positions in around 70% of the business areas in which it is active. Our most important global competitors include AkzoNobel, Clariant, Covestro, Dow Chemical, DSM, DuPont, Evonik, Formosa Plastics, Reliance, Sabic, Sinopec, Solvay and many hundreds of local and regional competitors. We expect competitors from emerging markets to become increasingly significant in the years ahead.

## Corporate legal structure


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As the publicly traded parent company, BASF SE takes a central position: Directly or indirectly, it holds the shares in the companies belonging to the BASF Group, and is also the largest operating company. The majority of Group companies cover a broad spectrum of our business. In some, we concentrate on specific business areas: The Wintershall Group, for example, focuses on oil and gas activities. In the BASF Group Consolidated Financial Statements, 251 companies including BASF SE are fully consolidated. We consolidate seven joint operations on a proportional basis, and account for 32 companies using the equity method.

 For more information, see the Notes to the Consolidated Financial Statements from page 173 onward

## Compensation Report and disclosures in accordance with Section 315(4) of the German Commercial Code

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 The Compensation Report can be found from page 140 onward, and the disclosures required by takeover law in accordance with Section 315(4) of the German Commercial Code (HGB) from page 134 onward. They form part of the Management's Report audited by the external auditor.

# Our strategy

## Corporate strategy

<h3>Purpose</h3> <p><b>We create chemistry for a sustainable future</b></p>	<h3>Principles</h3> <p><b>As strategic basis for our success on the market</b></p>	<h3>Values</h3> <p><b>As guideline for our conduct and actions</b></p>
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With the “We create chemistry” strategy, BASF has set itself ambitious goals in order to strengthen its position as the world’s leading chemical company. We want to contribute to a sustainable future and have embedded this into our corporate purpose: “We create chemistry for a sustainable future.”

In 2050, nearly ten billion people will live on Earth. While the world’s population and its demands will keep growing, the planet’s resources are finite. On the one hand, population growth is associated with huge global challenges; and yet we also see many opportunities, especially for the chemical industry.

### Our corporate purpose

#### ■ We create chemistry for a sustainable future

We want to contribute to a world that provides a viable future with enhanced quality of life for everyone. We do so by creating chemistry for our customers and society and by making the best use of available resources.

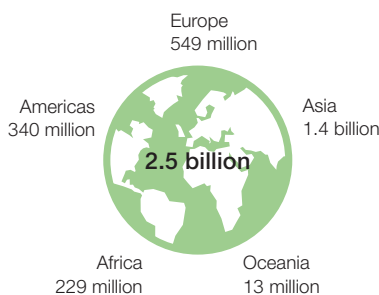
We live our corporate purpose by:

- Sourcing and producing responsibly
- Acting as a fair and reliable partner
- Connecting creative minds to find the best solutions for market needs

For us, this is what successful business is all about.

### World population growth

1950



Our leading position as an integrated global chemical company gives us the chance to make important contributions in the following three areas:

- Resources, environment and climate
- Food and nutrition
- Quality of life

We therefore act in accordance with four strategic principles.

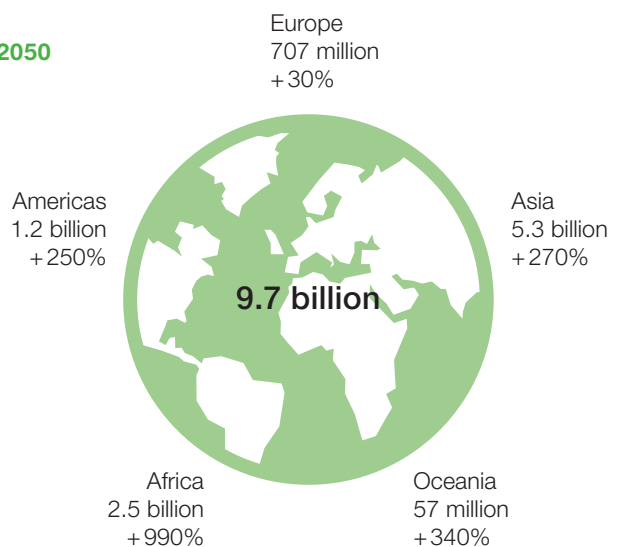
### Our strategic principles

- We add value as one company
- We innovate to make our customers more successful
- We drive sustainable solutions
- We form the best team

**We add value as one company.** Our Verbund concept is unique in the industry. Encompassing the Production Verbund, Technology Verbund and Know-How Verbund as well as all relevant customer industries worldwide, this sophisticated and profitable system will continue to be expanded. This is how we combine our strengths and add value as one company.

**We innovate to make our customers more successful.** We want to align our business even more with our customers’ needs and contribute to their success with innovative and sustainable solutions. Through close partnerships with customers and research institutes, we link expertise in chemistry,

2050



biology, physics, materials science and engineering to jointly develop customized products, functional materials, and system solutions as well as processes and technologies.

**We drive sustainable solutions.** In the future, sustainability will more than ever serve as a starting point for new business opportunities. That is why sustainability and innovation are becoming significant drivers for our profitable growth.

**We form the best team.** Committed and qualified employees around the world are the key to making our contribution to a sustainable future. Because we want to form the best team, we offer excellent working conditions and inclusive leadership based on mutual trust, respect and dedication to top performance.

📖 For more on innovation, see page 34 onward

For more on business opportunities with sustainability, see page 31 onward

For more on the Best Team Strategy, see page 42 onward

## Our values

- Creative
- Open
- Responsible
- Entrepreneurial

Our conduct is critical for the successful implementation of our strategy: This is what our values represent. They guide how we interact with society, our partners and with each other.

**Creative:** In order to find innovative and sustainable solutions, we have the courage to pursue bold ideas. We link our areas of expertise from many different fields and build partnerships to develop creative, value-adding solutions. We constantly improve our products, services and solutions.

**Open:** We value diversity – in people, opinions and experience. That is why we foster dialog based on honesty, respect and mutual trust. We develop our talents and capabilities.

**Responsible:** We act responsibly as an integral part of society. In doing so, we strictly adhere to our compliance standards. And in everything we do, we never compromise on safety.

**Entrepreneurial:** All employees contribute to BASF's success – as individuals and as a team. We turn market needs into customer solutions. We succeed in this because we take ownership and embrace accountability for our work.

## Our focus areas

- We set ourselves goals along the value chain for our focus areas

We used a materiality analysis to identify and rank relevant sustainability issues for BASF. These topics include, for example, energy and climate, water, resources and ecosystems, responsible production, and employment and employability. We updated our sustainability goals to this effect in 2015 and aligned them along the entire value chain. We practice responsible procurement. We design our production to be efficient and safe for people and the environment. We treat both our employees and our partners with respect and fairness. We drive sustainable products and solutions.

📄 For more on our materiality analysis, see [basf.com/materiality](http://basf.com/materiality)

📖 For more on our goals, see page 28 onward



## The BASF brand

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### ■ Above-average awareness of, and trust in, BASF brand in chemical industry

We rely on a strong brand in order to further expand our position as the world's leading chemical company. Our brand is derived from our strategy and our corporate purpose – “We create chemistry for a sustainable future” – as well as our strategic principles and values.

“Connected” describes the essence of the BASF brand. Connectivity is one of BASF's great strengths. Our Verbund concept – realized in production, technologies, knowledge, employees, customers and partners – enables innovative solutions for a sustainable future. The claim that “We create chemistry,” as stated in the BASF logo, helps us embed this solution-oriented strategy in the public consciousness. Our brand creates value by helping communicate its benefits for our stakeholders as well as our values.

Wherever our stakeholders encounter our brand, we want to convince them that BASF stands for connectivity, intelligent solutions, value-adding partnerships, an attractive working environment and sustainability. This contributes to our customers' confidence in their buying decisions and to our company value.

We are constantly developing our brand image by measuring awareness of and trust in our brand, and therefore in our company. A global market research study conducted every two years showed in 2014 that, in terms of awareness and trust, BASF is above the industry average in numerous countries. The study collected data on respondents' aided awareness of BASF and our most important competitors. Our goal is to continue increasing awareness of BASF in all of our relevant markets.

## Global standards

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- We act according to clearly defined values and standards of conduct that comply with or go beyond laws and regulations
- We review our performance with regular audits and a three-pronged monitoring system

Our standards fulfill or exceed existing laws and regulations and take internationally recognized principles into account. We respect and promote:

- The ten principles of the U.N. Global Compact
- The United Nations' Universal Declaration of Human Rights and the two U.N. human rights covenants
- The ILO's core labor standards and its Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy (MNE Declaration)
- The OECD Guidelines for Multinational Enterprises
- The Responsible Care Global Charter
- The German Corporate Governance Code

We stipulate rules for our employees with standards that apply throughout the Group. We set ourselves ambitious goals with voluntary commitments and review our environmental, health and safety performance using our Responsible Care Management System. A worldwide monitoring system ensures our compliance with labor and social standards. At its core are three main pillars:

- External compliance hotlines
- The annual survey of our Group companies
- Close dialog with our stakeholders, such as employee representatives and international organizations

Our business partners are expected to uphold prevailing laws and requirements and to align their actions with internationally recognized principles. We have established monitoring systems to ensure this.

🔗 For more on labor and social standards, see page 47

For more on Responsible Care Management, see page 98

For more on corporate governance, see page 127 onward

For more on compliance, see page 136 onward

## Innovations for a sustainable future

Innovations in chemistry are necessary to meet the needs of the growing world population on a long-term basis. The development of innovative products and solutions is, therefore, of vital significance for BASF. In the long term, we aim to continue significantly increasing sales of these products and solutions, and earn higher margins with them than the rest of our portfolio. This means effective and efficient research is becoming increasingly important. Aside from the research and development activities in our established business, we are also working on growth fields to tap new business areas for BASF. Through these, we can make a decisive contribution to innovative solutions for global challenges and contribute to sustainable development. We regularly review the growth fields in terms of their attractiveness for BASF. We will tailor our technology fields even more closely to the BASF Group's needs and reorganize them into key technologies. Key technologies combine skills and knowledge in order to maintain the long-term competitiveness of our business and products.

Our worldwide research expertise is pooled into three platforms each headquartered in one of the regions particularly significant for us: Europe, Asia Pacific and North America: Process Research & Chemical Engineering (Ludwigshafen, Germany), Advanced Materials & Systems Research (Shanghai, China) and Bioscience Research (Research Triangle Park, North Carolina). In the long term, we aim to conduct half of our research and development activities outside of Europe and are continuing to expand our R&D activities in both Asia and America. This means focusing on growth in regional markets. Our stronger global presence opens up new opportunities to participate in regional developments in innovation and gain access to local talent.

For more on innovation, see page 34 onward

## Business expansion in emerging markets

In the years ahead, we want to grow even more vigorously in the emerging markets and further expand our position there. Today's emerging markets are expected to account for around 60% of global chemical production in 2020. We aim to benefit from the above-average growth in these regions and therefore plan to invest more than a quarter of our capital expenditures there between 2016 and 2020.

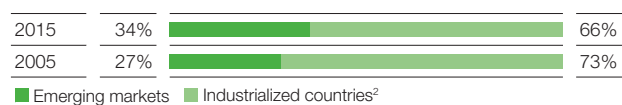
The weakening of the emerging markets continued in 2015. In China, growth slowed down as part of the orientation toward a more consumption-oriented growth model. This dampened growth not only in Asia, but also in the emerging markets of South America that export raw materials. While the Argentinian economy was able to stabilize at a low level, Brazil slid into a sharp recession that intensified toward the end of the year as domestic and foreign demand weakened. Russia, too, experienced a significant decline in its gross domestic product in light of low oil prices and ongoing mutual trade sanctions on the part of the E.U. and United States.

Compared with 2014, sales at our companies headquartered in the emerging markets rose by 3% to €16,230 million. This was largely the result of positive currency effects and increased volumes. Measured by customer location, sales (excluding the Oil & Gas segment) in the emerging markets grew by 2% to €19,572 million. This brought sales to customers in emerging markets to around 34% of total sales (excluding Oil & Gas) in 2015. In the years ahead, we want to continue expanding this percentage.

For more on our goals, see page 28 onward



### Sales<sup>1</sup> in emerging markets



<sup>1</sup> Percentage of BASF Group sales (excluding Oil & Gas) by location of customer

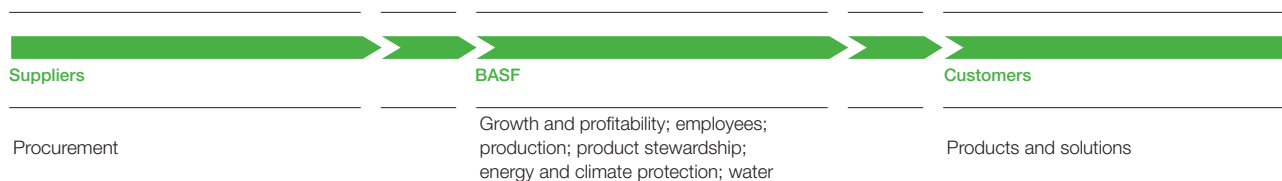
<sup>2</sup> Comprises EU15, Norway, Switzerland, United States, Canada, Japan, South Korea, Australia, New Zealand

## Goals

We carry out our corporate purpose, “We create chemistry for a sustainable future,” by pursuing ambitious goals along our entire value chain. In this way, we aim to achieve profitable growth and take on social and environmental responsibility,

focusing on issues through which we as a company can make a significant contribution. We updated and revamped our goals to this effect in 2015.

### Goal areas along the value chain



## Growth and profitability

In 2011, we set ourselves sales and earnings goals for 2015 and 2020 as part of the “We create chemistry” strategy. In October 2014, we announced that we would not reach the financial goals for 2015, primarily because gross domestic product and industrial and chemical production had grown at a considerably slower average rate from 2010 to 2015 than our strategy had anticipated.

In September 2015, we reduced our expectations for the global economic environment from 2015 to 2020 (previous forecast in parentheses):

- Growth of gross domestic product: 3.0% (3.2%)
- Growth in industrial production: 3.5% (3.7%)
- Growth in chemical production: 3.9% (4.0%)

As a consequence, we no longer adhere to the financial goals previously stated for 2020.

Our aim for the years ahead is, on average, to grow sales slightly faster and EBITDA considerably faster than global chemical production, and to earn a significant premium on our cost of capital. Moreover, we strive for a high level of free cash flow each year, either raising or at least maintaining the dividend at the prior-year level.

## Procurement

	2020 Goal	Status at end of 2015	More on
Assessment of sustainability performance of relevant suppliers <sup>1</sup> according to our risk-based approach; development of action plans where improvement is necessary	70%	31%	Page 94

<sup>1</sup> We define relevant suppliers as those showing an elevated sustainability risk potential as identified by risk matrices and with respect to corresponding country risks. Our suppliers are evaluated based on risk due to the size and scale of our supplier portfolio.

## Employees

	2021 Goal	Status at end of 2015	More on
Proportion of women in leadership positions with disciplinary responsibility	22–24%	19.5%	Page 45
<b>Long-term goals</b>			
Proportion of international senior executives <sup>2</sup>	Increase in proportion of non-German senior executives (baseline 2003: 30%)	35.6%	Page 45
Senior executives with international experience	Proportion of senior executives with international experience over 80%	82.9%	Page 45
Employee development	Systematic, global employee development as shared responsibility of employees and leaders based on relevant processes and tools	The project has been implemented for around 60,000 employees worldwide.	Page 44

<sup>2</sup> The term “senior executives” refers to leadership levels 1 to 4, whereby level 1 denotes the Board of Executive Directors. In addition, individual employees can attain senior executive status by virtue of special expertise.

## Production

	2025 Goals	Status at end of 2015	More on
Reduction of worldwide lost-time injury rate per one million working hours	≤0.5	1.4	Page 100
Reduction of worldwide process safety incidents per one million working hours	≤0.5	2.1	Page 101
	<b>Annual goal</b>		
Health Performance Index	>0.9	0.97	Page 101

## Product stewardship

	2020 Goal	Status at end of 2015	More on
Risk assessment of products sold by BASF worldwide in quantities of more than one metric ton per year	>99%	67.8%	Page 103

## Energy and climate protection

	2020 Goals	Status at end of 2015	More on
Covering our primary energy demand through the introduction of certified energy management systems (ISO 50001) at all relevant sites <sup>3</sup>	90%	39.5%	Page 106
Reduction of greenhouse gas emissions per metric ton of sales product (excluding Oil & Gas, baseline 2002)	-40%	-34.6%	Page 106

<sup>3</sup> The selection of relevant sites is determined by the amount of primary energy used and local energy prices.

## Water

	2025 Goal	Status at end of 2015	More on
Introduction of sustainable water management at all production sites in water stress areas and at all Verbund sites (excluding Oil & Gas)	100%	36.2%	Page 110

## Products and solutions

	2020 Goal	Status at end of 2015	More on
Increase the proportion of sales generated by products that make a particular contribution to sustainable development ("Accelerators")	28%	26.6%	Page 32



## Value-based management

“We add value as one company” is one of the four principles of our “We create chemistry” strategy. To create value in the long term, a company’s earnings must exceed the cost of stockholders’ equity and borrowing costs. This is why we strive to earn a high premium on our cost of capital. To ensure BASF’s long-term success, we encourage and support all employees in thinking and acting entrepreneurially in line with our value-based management concept. Our goal: to create awareness as to how each and every employee can find value-oriented solutions in the company’s day-to-day operations and implement these in an effective and efficient manner.

### EBIT after cost of capital

#### ■ Performance and management indicator

Earnings before interest and taxes (EBIT) after cost of capital is a key performance and management indicator for the BASF Group and its operating divisions and business units. This figure combines the company’s economic situation as summarized in EBIT with the costs for the capital made available to us by shareholders and creditors. When we earn a premium on our cost of capital, we exceed the return expected by our shareholders.

**EBIT after cost of capital<sup>1</sup>** (in million €)  
Five-year summary

Year	EBIT after cost of capital (in million €)
2015	194
2014	1,368
2013	1,768
2012	1,164
2011	2,551

<sup>1</sup> The figure for 2011 was not restated in accordance with IFRS 10 and 11.

### Calculation of cost of capital percentage

The cost of capital percentage (weighted average cost of capital, WACC) is determined using the weighted cost of capital from equity and borrowing costs. The cost of equity is ascertained using the Capital Asset Pricing Model. Borrowing costs are determined based on the financing costs of the BASF Group.

EBIT after cost of capital, which we use as a steering parameter, is a pretax figure. Therefore, we use the current average tax rate to derive the pretax cost of capital percentage from the WACC. In 2015, this cost of capital percentage was 11%; in 2016, this figure will be 10% due to lower capital market interest rates. Based on this, an EBIT threshold is calculated which must then be reached by all operating units put together in order to earn the cost of capital of the BASF Group.

**Calculation of EBIT after cost of capital** (in million €)

	2015	2014
EBIT BASF Group	6,248	7,626
– Less EBIT for activities not assigned to the segments <sup>1</sup>	(985)	(133)
– Less cost of capital <sup>2</sup>	7,039	6,391
<b>EBIT after cost of capital</b>	<b>194</b>	<b>1,368</b>

<sup>1</sup> The projected net expense is already provided for by an increase in the cost of capital percentage.

<sup>2</sup> In 2014 and 2015, the cost of capital percentage was 11%.

### Value-based management throughout the company

#### ■ Exercising a value-oriented mindset in day-to-day business by every employee

For us, value-based management means the daily focus placed on value by all of our employees. To this end, we have identified value drivers that show how each and every unit in the company can create value. We develop performance indicators for the individual value drivers that help us to plan and pursue changes.

An important factor in ensuring the successful implementation of value-based management is linking the goals of BASF to the individual target agreements of employees. In the operating units, the most important performance indicators are the achievement of a positive EBIT after cost of capital and a competitive level of profitability. By contrast, the functional units’ contribution to value is assessed on the basis of effectiveness and efficiency.

All this forms a consistent system of value drivers and key indicators for the individual levels and functions at BASF. In addition to EBIT after cost of capital, EBIT and EBIT before special items are the most significant performance indicators for measuring economic success as well as for steering the BASF Group and its operating units.

We primarily comment on EBIT before special items on a segment and division level in our financial reporting because this figure is adjusted for influences not associated with typical business operations. This makes it particularly suitable for describing financial development over time. In addition to EBIT before special items, we also report on sales as a further main driver for EBIT after cost of capital. BASF’s nonfinancial targets are focused more on the long term, and are not used for short-term steering.

According to our value-based management concept, all employees can make a contribution in their business area to help ensure that we earn the targeted premium on our cost of capital. We pass this value-based management concept on to our team around the world through seminars and training events, thereby promoting entrepreneurial thinking at all levels within BASF. 🌐

## Sustainability management

**Sustainability is embedded into our corporate strategy. We employ the various tools of our sustainability management toward living out our company purpose: “We create chemistry for a sustainable future.” This is how we underpin the strategic principle, “We drive sustainable solutions.” By integrating sustainability aspects into our core business, we take advantage of business opportunities and minimize risks along the value chain.**

### Strategy

- Identifying significant topics and trends
- Taking advantage of business opportunities
- Minimizing risks

As the world's leading chemical company, we aim to add value in the long term for our company, the environment, and society. Sustainability is simultaneously an essential part of our risk management and a driver for growth. That is why we incorporate aspects of sustainability into our decision-making processes and define clear responsibilities for this in our organization.

Through our materiality analysis, continuous dialog with stakeholders, and our many years of experience, we are always developing a better understanding of significant topics and trends as well as potential opportunities and risks along our value chain.

We used a materiality analysis in 2013 to identify and prioritize relevant sustainability topics for BASF. Material aspects derived from this include, for example, energy and climate, water, resources and ecosystems, responsible production, and employment and employability. These are the focus areas of our reporting. We have also integrated them into our steering processes and used them as the basis for working out our new global sustainability goals.

In order to properly account for changing conditions and requirements, we initiated an internal analysis in 2015 to review the results of the materiality analysis. We have already started involving numerous colleagues and in 2016, we want to exchange with external stakeholders.

We take advantage of business opportunities by offering our customers innovative products and solutions that contribute to sustainable development. We ensure that sustainability criteria are integrated into our business units' development and implementation of their strategies, research projects, and innovation processes. For example, we identify the sustainability value drivers and risks for specific value chains. We analyze the sustainability strategies of competitors and customers in order to tap new business opportunities.

Our risk management supports our long-term business success. We aim to reduce risks by setting ourselves globally uniform requirements for environmental and health protection,

safety and security, product stewardship, compliance, and labor and social standards that frequently go beyond legal requirements. Internal monitoring systems and complaint mechanisms enable us to check compliance with these standards: these include, for example, questionnaires, audits and compliance hotlines. All employees and managers are required to abide by our global Code of Conduct, which defines a mandatory framework for our business activities.

Our investment decisions for property, plant and equipment and financial assets also involve sustainability criteria. Our decision-making is supported by expert appraisals that assess economic implications as well as potential effects on the environment, human rights or local communities.

For more on the organization of our sustainability management, see [basf.com/sustainabilitymanagement](http://basf.com/sustainabilitymanagement)

For more on our materiality analysis, see [basf.com/materiality](http://basf.com/materiality)

For more on our financial and sustainability goals, see page 28 onward

For more on our production standards, see page 100 onward

For more on standards in our supply chain, see page 94 onward

For more on Compliance and our Code of Conduct, see page 136 onward

### Engaging stakeholders

- Constant dialog with our stakeholders

Our stakeholders include employees, customers, suppliers and shareholders, as well as experts in science, industry, politics, society and media. Parts of our business activities, such as the use of new technologies, are frequently viewed by our stakeholders with a critical eye. In order to increase societal acceptance for our business activities, we take on critical questions, assess our business activities in terms of their sustainability, and communicate transparently. Such dialogs help us to even better evaluate which measures we should pursue to keep people informed on these topics, establish trust, and form partnerships.

To get our stakeholders even more closely involved, the Board of Executive Directors once again met with international experts from science and industry – the Stakeholder Advisory Council – in 2015 to discuss important aspects of sustainability. These included topics like the influence of externalities and the challenges of renewable raw materials, especially palm kernel oil.

We have a particular responsibility toward our production sites' neighbors. With the established community advisory panels, we aim to promote open exchange between citizens and our site management, and strengthen trust in our activities. In 2015, for example, we tackled a concrete recommendation made by the Stakeholder Advisory Council in 2014 and developed global recommendations for the community advisory panel system.

BASF is also involved in worldwide initiatives with various stakeholder groups, such as the U.N. Global Compact. The U.N. Secretary General appointed BASF's Chairman of the Board of Executive Directors as a member of the U.N. Global Compact Board for another three years. In the worldwide network of Global Compact LEAD, we are participating in the implementation of the "Agenda 2030" adopted by the United Nations in 2015, along with its Sustainable Development Goals. BASF is also active in local Global Compact networks.

We have been part of the Global Business Initiative on Human Rights since 2012, a group of globally operating companies from different industries whose goal is to advance respect for human rights in business. This included presenting examples of how to implement the U.N. Guiding Principles on Business and Human Rights. In 2015, we were also involved in the consultation process of the German government's national plan of action on this topic.

Furthermore, BASF is a founding member of a cross-industry initiative of the World Business Council for Sustainable Development (WBCSD). Together, a method was developed for evaluating the societal impact of products throughout their entire life cycle.

Our lobbying and political communications are conducted in accordance with transparent guidelines and in keeping with our publicly stated positions. BASF does not in principle support political parties. The BASF Corporation Employees Political Action Committee, established by our employees in the United States, is an independent, federally registered employee association that collects donations for political purposes and independently decides how these are used.

For more on stakeholder dialog, see [basf.com/en/dialog](http://basf.com/en/dialog)

For more on the Stakeholder Advisory Council, see [basf.com/en/stakeholder-advisory-council](http://basf.com/en/stakeholder-advisory-council)

For more on our guidelines for responsible lobbying, see [basf.com/guidelines\\_political\\_communication](http://basf.com/guidelines_political_communication)

For more on sustainability in procurement, see page 94 onward

For more on our human rights position, see [basf.com/humanrights](http://basf.com/humanrights) and pages 47 and 136

For more on palm kernel oil, see page 96

## Creating value

- Creating value along the entire value chain
- New goal for products that make a particular contribution to sustainability

We promoted sustainability topics in 2015 through various projects together with partners along the value chain. With the help of our ecoefficiency analysis, for example, we analyzed the economic and environmental implications of various coating processes in a study conducted with Dürr, a machine and plant manufacturing company, and with our customer BMW. The goal was to discover ways to improve the ecoefficiency of serial coating methods, such as by saving resources. The study showed that the "integrated process" – a coating procedure that saves a paint layer – represents a more economical and ecological alternative to other processes evaluated.

For the 2015 business year, BASF conducted sustainability assessments and ratings for 95.4% of its entire portfolio of more than 60,000 specific product applications – which account for €64.9 billion in sales – using the Sustainable Solution Steering® method. This externally validated procedure allows us to determine how our products contribute to sustainability, and we consider their application in various markets and industries.

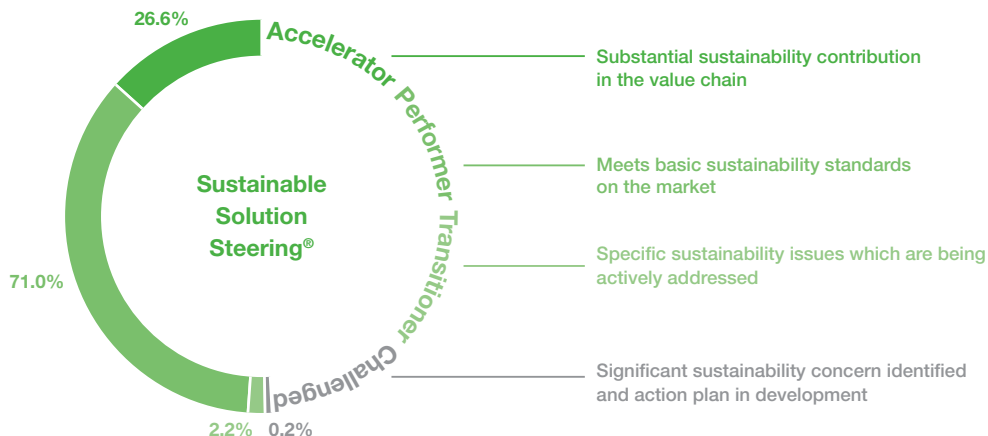
We want to increase the proportion of "Accelerator" products in the long term: in other words, products that contribute particularly to sustainability in the value chain, and are characterized by, on average, higher growth rates and profitability. We have therefore set ourselves a concrete goal in 2015: By 2020, we aim to raise the proportion of sales from Accelerator products to 28%. At 26.6%, this figure already closely approached the 2020 target in 2015. This development is mainly based on portfolio measures undertaken in 2015, especially in the Oil & Gas segment.

### 2020 Goal

Increase proportion of sales generated by Accelerator products to

28%

**Sustainable Solution Steering®: How BASF's products contribute to sustainability**



One of these Accelerator products is Elastocool® Advanced – an innovative insulation material for refrigerators and freezers. It boasts a high level of resource efficiency while also possessing improved insulation properties. Elastocool® contributes to achieving the E.U.'s top energy efficiency levels in refrigerators and freezers.

The chelating agent Trilon® M is another Accelerator, having established itself as a high-performance alternative to phosphate in dishwashing machine detergents. European Union regulations will almost entirely prohibit the use of phosphates for this application in Europe starting 2017. Chelating agents' most important task is to intercept metal ions in dishwasher water in order to inhibit calcium buildup on dishes. Trilon® M is readily biodegradable, and also improves cleaning power while fulfilling the criteria for the E.U. Ecolabel.

For all products that are classified as "Challenged" and do not fulfill our major sustainability criteria, we want to develop prompt plans of action. These action plans can include research projects, reformulations or even replacing one product with an alternative product. Based on the results of the initial analyses, action plans had been created for 99% of all Challenged products by the end of 2015.

The products for which we have developed action plans include, for example, polyfluorinated substances that are often used in paper packaging coatings for their water and oil-resistant properties. Although European authorities regard any hazard to people or the environment as very low, stricter regulations are anticipated in the future as these substances biodegrade with difficulty. As a result, the Sustainable Solution Steering® method has classified them as Challenged in their use for paper coatings. BASF decided early on not to continue selling these substances. The new product solutions use substances whose chemical properties prevent them from accumulating in the environment. Furthermore, paper coated with these new materials is biodegradable and can either be processed into compost by composting facilities (ecovio®) or recycled (Ultramid® and Eptal®). We will market oil-proof barriers based on these products in the future; they are classified as Accelerators.

For more on Sustainable Solution Steering®, see [basf.com/en/sustainable-solution-steering](http://basf.com/en/sustainable-solution-steering)

For more on our sustainability instruments, see [basf.com/measurement-methods](http://basf.com/measurement-methods) and page 96





# Innovation

**Around 10,000**

Employees worldwide in  
research and development

**€1,953 million**

Spent on research and  
development

**Around 3,000**

Projects in the  
research pipeline

Innovations based on effective and efficient research and development are an important growth engine for BASF. We work in interdisciplinary teams on innovative processes and products for a sustainable future. This is how we ensure our long-term business success with chemistry-based solutions for almost all sectors of industry.

A growing need for energy, food and clean water, limited resources and a booming world population – reconciling all these factors is the greatest challenge of our time. Innovations based on chemistry play a key role here, as they contribute decisively to new solutions.

We set ourselves ambitious goals: In 2015, we wanted to achieve sales of around €10 billion with new and improved products or applications that had been on the market since 2011. Despite the challenging market environment, we have achieved this sales goal. EBITDA from innovative products and processes on the market since 2011 was below the targeted amount of €2.5 billion in 2015, according to current estimates. Yet we nevertheless reached our associated goal, which was to achieve margins with innovations that exceeded those of the rest of the product portfolio. In the long term, we aim to continue significantly increasing sales and earnings with new and improved products.

 For more on our goals, see page 28

Our innovative strength is based on our global team of highly qualified employees with various disciplines. We had around 10,000 employees involved in research and development in 2015. At the beginning of 2015, we arranged the central research units Process Research & Chemical Engineering, Advanced Materials & Systems Research, and Bioscience Research into three global platforms each headquartered in one of the regions particularly significant for us: Europe, Asia Pacific and North America. As knowledge and competence centers, they form the core of our global Know-How Verbund, joined by the development units in our operating divisions. BASF New Business and BASF Venture Capital supplement this network. Their task is to develop attractive new markets and new business models for BASF based on new technologies.

## Global network in science and industry

- Network with over 600 universities, research institutes and companies
- Successful collaboration with leading universities within UNIQUE excellence program

Our global network with more than 600 excellent universities, research institutes and companies is an important part of our Know-How Verbund. We collaborate with them in many different disciplines in order to achieve our growth targets. In our excellence program UNIQUE, we are working particularly intensively with fifteen leading universities around the world. This program will strengthen and expand our portfolio with creative new projects by giving us even more direct access to scientific expertise, new technologies and talented minds from various disciplines. Also involved in UNIQUE is Heidelberg University, with whom we signed a collaboration agreement for our joint “Catalysis Research Laboratory” (CaRLa) in the spring of 2015. The research cooperation, which began in 2006, addresses current issues in homogeneous catalysis and was extended to October 2017.

Together with researchers from Harvard University – also a member of UNIQUE, as well as of our North American Center for Research on Advanced Materials (NORA) – BASF researchers developed a new method for making amorphous nanoparticles with increased solubility. This property improves the efficient uptake of, for example, vitamins and drugs in the human body. The new process is well suited to a number of different pharmaceutical, food and crop protection applications.

## Strategic focus – examples

- **Forward-looking project portfolio**
- **Strong customer and market orientation**
- **Worldwide presence and expansion of research and development centers**

Our research pipeline comprised approximately 3,000 projects in 2015. We increased our spending on research and development by €69 million to €1,953 million (2014: €1,884 million); the operating divisions were responsible for 79% of total research and development expenditures. The remaining 21% was allocated to cross-divisional corporate research focusing on long-term topics of strategic importance to the BASF Group. Innovations based on chemistry require market-oriented research and development that is sharply focused on the needs of our customers. In order to bring promising ideas even faster to market, we regularly assess our research projects using a multistep process and focus our topics accordingly.

Another vital factor for our success is a global research and development presence. We continued to broaden our activities in 2015, especially in Asia. In May, we opened a new agricultural research station in Pune, India. The new facility focuses on global research in the areas of herbicides, fungicides and insecticides, as well as on solutions going beyond classic crop protection. In addition, we are also addressing topics there that are especially relevant for India.

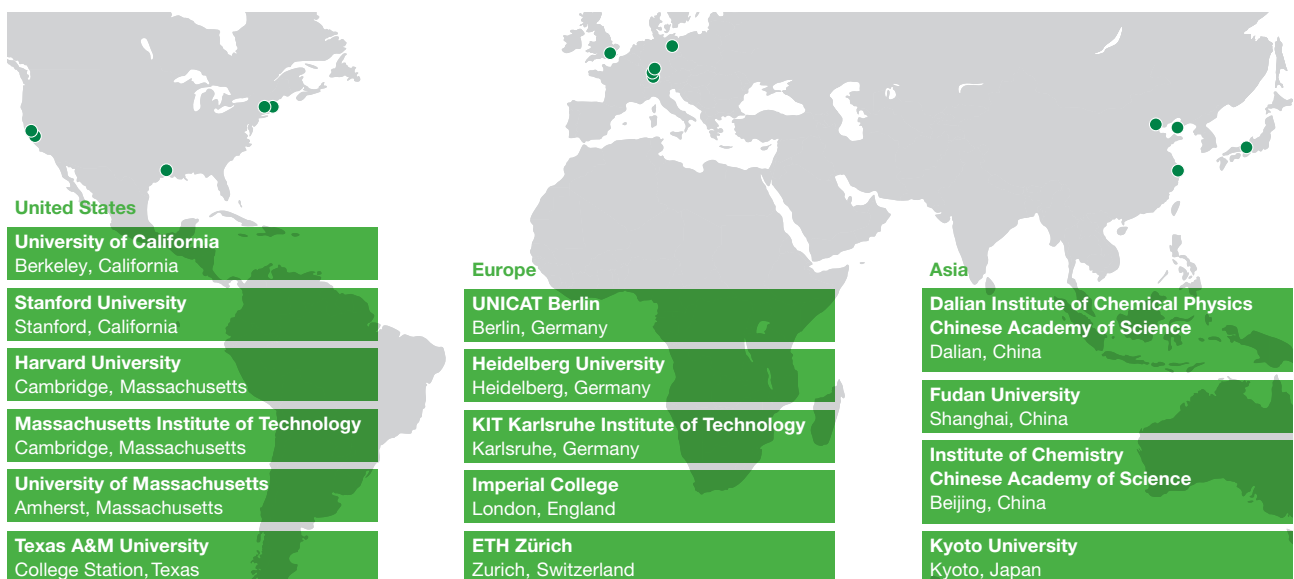
The extension of our Innovation Campus Asia Pacific in Shanghai, China, was inaugurated in November, strengthening regional research capacity for new materials and systems, as well as our power of innovation for both the region and the world.

We aim to keep strengthening our research and development activities in Asia as well as in North and South America. Our plan is to conduct half of our research and development activities outside of Europe in the long term. We are adapting this to the growth in regional markets. This increased presence outside Europe creates new opportunities for fortifying and expanding customer relations and scientific collaborations, shoring up our Research and Development Verbund and making BASF an even more attractive partner and employer in the regions. Ludwigshafen remains the largest site in our Research Verbund. This was emphasized by the investment we made in a new research building opened in July. It creates modern workspaces and ideal cooperation conditions for around 200 employees in the platform Advanced Materials & Systems Research.

The number and quality of our patents attest to our power of innovation and long-term competitiveness. We filed around 1,000 new patents worldwide in 2015. For the seventh time in succession, we headed the rankings in the Patent Asset Index in 2015 – a method which compares patent portfolios industry-wide. This once again underscores BASF's power of innovation.

📖 For a multiyear overview of research and development expenditures, see the Ten-Year Summary on page 235

## UNIQUE – global partnership program with leading universities



## Research focus areas – examples

- **Chemistry-based innovations play important role in answering questions of the future**
- **Growth fields with attractive sales potential**
- **Science symposia strengthen university network**

Our focus areas in research are derived from the three major areas in which chemistry-based innovations will play a key role in the future: resources, environment and climate; food and nutrition; and quality of life. In order to develop future business fields with high sales potential for BASF, we develop specific growth fields. These are regularly reviewed in terms of their attractiveness for BASF. When they mature, they are transferred to the operating divisions and new ones are promoted. We will tailor our technology fields even more closely to the needs of the BASF Group and rearrange them into key technologies. Key technologies pool competencies in order to uphold the long-term competitiveness of our businesses and products.

We held three **interdisciplinary science symposia** in the year of our 150th anniversary: in Ludwigshafen, Germany; Chicago, Illinois; and Shanghai, China. There, a total of 1,500 renowned experts from more than 37 countries engaged with each other on the topics “smart energy,” “food” and “urban living,” developing concrete approaches for interdisciplinary solutions. Nobel laureates Steven Chu of Stanford University in California and Jean-Marie Lehn of the University of Strasbourg in France contributed with keynote speeches. The symposia strengthened our academic network and marked the highlights among the co-creation activities we used to link people and ideas around the globe in order to find new solutions together for global challenges. We plan symposia in the future, as well, in order to foster scientific exchange.

We also successfully maintain close cooperations with others in the area of energy. For example, we have developed new materials for energy-saving cooling together with leading universities and partners from industry around the world. Thanks to their special properties, these **magnetocaloric materials** warm up when introduced to a magnetic field and cool off again when the field is removed. Compared with today's usual compressor technology, cooling systems based on these widely available and affordable materials have the potential to reduce energy consumption by up to 35%. They are also quieter and operate without gaseous coolants. Together with the U.S. technology company Astronautics and the Chinese appliance manufacturer Haier, we introduced the first prototype of a magnetocaloric wine cooler and are now developing it jointly to achieve commercial readiness. We offer our customers magnetocaloric products for their cooling applications under the brand name Quice®.

For us, the development of innovative materials also involves **3-D printing** – that is, additive manufacturing. Many complex plastic components have been made using injection molding. By contrast, 3-D printing offers distinct advantages: lower small-batch production costs and considerably less time, since no mold is necessary. Complex structural elements can be built in a single step, allowing for completely new design options like branching internal cavities. And yet the materials currently available on the market often do not meet the high demands of functional components for industrial applications. This is especially true of components optimized for shape and weight, like those in the aviation, automotive, and consumer goods industries. We are therefore developing improved materials together with partners, such as plastics and resins, and optimizing the interplay between the material and 3-D printer.

Process optimization is our goal in the E.U.-supported projects PRODIAS<sup>1</sup> and RECOBA<sup>2</sup>, in which we have been closely collaborating with partners from industry, academia and research institutions since the spring of 2015.

With PRODIAS, we intend to further unlock the potential of products in **white biotechnology**. This involves methods and processes that allow products based on renewable raw materials to be produced efficiently and with fewer resources. The project focuses particularly on processing diluted aqueous systems, which are generated in large quantities by the manufacture of such products and which demand energy-intensive steps for separation and purification. In PRODIAS, we are developing methods and process steps optimally suited for biotechnological processes, increasing the competitive ability of these products.

The RECOBA research project pursues the goal of improving product quality, efficiency, and flexibility in **complex batch processes** – such as for emulsion polymerizations – thus saving energy and raw materials. Typically, the process control runs through repetitions according to a fixed schedule. We want to replace this by developing a model-based online control system that can adjust to current conditions and calculate the optimal trajectory for any point in time. Product properties, such as the texture of product particles, can therefore be better controlled, and the reactor's productivity and energy consumption optimized.

For more on research and development, see [basf.com/innovations](http://basf.com/innovations)

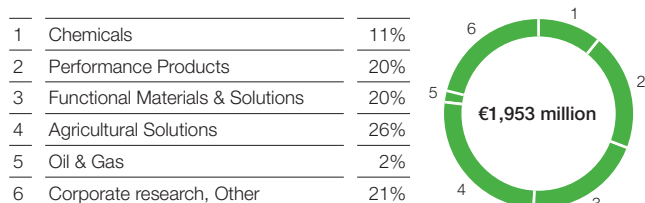
<sup>1</sup> The acronym PRODIAS stands for **P**rocessing **D**iluted **A**queous **S**ystems.

<sup>2</sup> The acronym RECOBA stands for **R**ead-time sensing, **a**dvanced **C**ontrol and **O**ptimization of **B**atch processes, saving energy and raw materials.

## Innovation in the segments – examples

Innovations are an important success factor for BASF's long-term growth. In developing new products, we look at the needs of our customers as well as at market trends, and take advantage of the opportunities arising from value chains in the BASF Verbund. We want to become even more competitive through innovative production methods. We never stop improving our existing products, applications and processes. With chemistry, we can sustainably create value for customers and society.

### Research and development expenses by segment



**Chemicals:** Over the last few years, we have been constantly improving our **production process for isononanol (INA)**, an important precursor for products like plasticizers. We have been able to raise the production and energy efficiency of this process and expand its raw material base, so that in addition to steam cracker products, side streams from refineries can also be used as a raw material. This increases our supply security and improves our cost structure. Together with our partner Sinopec, we started up a new INA production plant in October 2015 in Maoming, China, in which the new process has already been successfully implemented.

In the Monomers division, we are constantly on the lookout for innovative and large-volume applications for our existing products. An example of this is the successful introduction of **polymer MDI** as a binding agent for various wood-based products. Laminate flooring especially benefits from improved performance properties, with increased moisture resistance. Our globally active team of specialists proved a key success factor for this new application, as they supported customers in North America and Asia in converting their production.

In 2015, we supplied the first **PolyTHF® 1000 produced using renewable raw materials** to selected partners for testing purposes in various applications. This precursor is made using a license from Genomatica, and its quality is on a level with conventionally produced PolyTHF® 1000 based on petrochemicals. It can therefore be employed as a chemical

component in thermoplastic polyurethane (TPU), which is used to make such products as ski boots, shoe soles, films, hoses and cable jacketing. This enables our customers to develop innovative products based on renewable raw materials.

**Performance Products:** Paint manufacturers want to offer products that can be applied in a short amount of time without compromising on high quality and attractive appearance. Our **Acronal® EDGE 4750** dispersion in the North American decorative paint portfolio allows our customers to combine the demands of both primer and top coat into a single paint: Acronal® EDGE 4750 adheres well and prevents stains from penetrating the paint while providing coverage, durability and stain resistance. Painters can therefore dispense with a whole process step and still achieve the highest-quality results.

The minty taste of **menthol**, the world's top-selling flavor, can be found in countless everyday products. Unlike other flavorings that remain in liquid form, menthol crystallizes to a solid at room temperature. Customers first have to melt it again before using it. Yet we already supply our menthol in liquid form by transporting and storing the still-hot menthol from the production facility in containers with a mobile heating element. This saves our customers several processing steps along the value chain, allowing them to put it to direct use: a sustainable business model with both economic and environmental benefits.

The high-performance polymer **Sokalan® HP 20** gets laundry clean with fewer resources. It can be used in both conventional and highly concentrated liquid laundry detergents, removing stains from textiles even at low washing temperatures. Sokalan® HP 20 also prevents the redeposition of removed soil onto the washed fabric, keeping colors bright and white laundry from turning grey.

Since 2014, the United States has had very stringent regulations for the environmental friendliness of certain lubricants in the shipping industry – such as those used for marine propulsion and steering systems. Our **Synative® ES TMP** ester base stocks contain a large amount of renewable raw materials, are biodegradable, and are nontoxic to marine organisms. Because they work effectively and yet also in a more environmentally friendly manner than many comparable products in the marine industry, they help protect marine life and are employed in many applications subject to especially strict regulations.



**Functional Materials & Solutions:** BASF has developed a **catalyst technology** that allows refineries to increase yields of valuable products like gasoline, diesel and other fuels from crude oil. The nickel contained in crude oil presents a particular challenge to further processing, as it significantly increases the generation of undesirable by-products like petroleum coke and hydrogen. Combined with an optimized pore structure, our new catalyst based on the metalloid boron intercepts nickel in processing, thus preventing undesirable chemical reactions.

The **MasterEase** range of concrete additives greatly improves the flow properties of the building material. This is especially true of modern high-performance concrete. Its lower water and cement content improves stability and increases buildings' longevity, but also makes the material sticky and harder to pump. Developed by BASF, polymers contained in MasterEase products reduce the concrete's viscosity by up to 30%. From mixing and pumping to sealing and smoothing, processing therefore becomes easier, quicker and more economical.

With **XSpark**<sup>®</sup>, we have developed an exclusive color effect for automotive OEM coatings that sparkles with particular brilliance in direct sunlight. Tiny glass particles that reflect light more precisely than other effect pigments are applied together with the paint layer in a single step. The resulting homogeneous surface provides a pure, solid-color reflection with particular depth, a complex paint effect that creates a high-quality, elegant-looking coating without being intrusive. This innovative product has already won several international awards.

Together with our partner ContiTech Vibration Control, we have developed the world's first plastic transmission cross-beam in the rear axle subframe of vehicles for the S-Class from Mercedes-Benz. Made of **Ultramid**<sup>®</sup> engineering plastic, the component reduces noise and is 25% lighter than typical models made of aluminum, which means a reduction in vehicle fuel consumption. Thanks to our **Elastollan**<sup>®</sup> thermoplastic polyurethane, the company Schwalbe has been able to reduce weight in its "Evo Tube" inner tube designed for mountain bikes by up to 65% compared with conventional, butyl-based inner tubes.

**Agricultural Solutions:** We work together with farmers to keep their farmland arable for future generations and to accommodate society's rising expectations. To do so, we constantly invest in our development pipeline in order to expand our portfolio both in and beyond conventional crop protection – such as in biological solutions. In 2015, we invested €514 million in research and development in the Crop Protection division, representing around 9% of sales for the segment.

Our **innovation pipeline** comprises products launched between 2015 and 2025. With a current peak sales potential of €3 billion, the pipeline comprises innovations from all business areas. The herbicide Engenia<sup>®</sup>, for example, is being introduced in the United States as a key component of dicamba- and glyphosate-tolerant cropping systems. In 2016, we will apply for approval of a new fungicide that can be used in many crops around the world. We are also bolstering our insecticide portfolio with novel high-performance ingredients.

Our **Seltima**<sup>®</sup> formulation from the Functional Crop Care portfolio offers farmers an efficient, yet environmentally friendly, solution for guarding rice crops against fungal infections. The special encapsulation technology developed in the BASF Verbund ensures the precise release of its active ingredient exclusively on the rice leaf's surface, enabling better protection of both plant and environment.

**BASF Plant Science:** We collaborate with numerous biotechnology and seed companies, research institutes, and universities worldwide on developing crops with higher yields and improved resistance to unfavorable environmental factors, such as drought. We also work closely together with the Crop Protection division to research and bring to market innovative herbicide tolerance solutions. In 2015, we launched the **Cultivance**<sup>®</sup> production system, a combination of genetically modified soybeans and the corresponding herbicide. Cultivance<sup>®</sup> therefore provides farmers with a complete solution for weed control in soybean cultivation.

**Oil & Gas:** Our research and development activities focus on improving the discovery rate of oil and gas reservoirs, developing technologies for reservoirs with challenging development and production conditions, and increasing the recovery factor of reservoirs.

Together with an external partner, we have employed a new and efficient method in the Staffhorst natural gas field in Germany for **recovering remaining potential in an economical manner**. The conventional drilling rig that would have been used to extend the well by the necessary 170 meters would have been too time and cost-intensive; in addition, production would need to have been halted while the work was in progress. Instead, the drilling was accomplished through the existing production tubing, using flexible steel coiled tubing and the world's smallest drilling turbine to drive the drill head. We were thus able to deepen the well at low cost and without stopping production.



## Investments, acquisitions and divestitures

**€5,786 million**

In investments  
made in 2015

**€227 million**

Used for acquisitions  
in 2015

**Optimization**

Of our portfolio through  
acquisitions and divestitures

In addition to innovations, investments and acquisitions make a decisive contribution toward achieving our ambitious growth goals. We are intensifying our investment in emerging markets and in North America. We use targeted acquisitions to supplement our organic growth.

For the period from 2016 to 2020, we have planned capital expenditures<sup>1</sup> of €19.5 billion. We want to invest more than a quarter of this amount in emerging markets and expand our local presence in order to benefit from the growth in these regions. In North America, attractive growth prospects and cost-effective raw material prices are strengthening our investment plans in the region. Furthermore, we are continuing to develop our portfolio through innovation-driven acquisitions that promise above-average profitable growth. Investments and acquisitions alike are prepared by interdisciplinary teams and assessed using diverse criteria. In this way, we ensure that economic, environmental and social concerns are included in strategic decision-making. We also continuously improve the efficiency of our production processes by investing in our plants.

### Investments and acquisitions 2015<sup>2</sup> (in million €)

	Investments	Acquisitions	Total
Intangible assets	135	136	271
Thereof goodwill	–	19	19
Property, plant and equipment	5,651	91	5,742
<b>Total</b>	<b>5,786</b>	<b>227</b>	<b>6,013</b>

<sup>2</sup> Including additions to property, plant and equipment resulting from acquisitions, capitalized exploration, restoration obligations and IT investments

### Investments

- Investment volume exceeds prior-year level
- Several major plants begin operations

We invested €5,651 million in property, plant and equipment in 2015. Total investments therefore exceeded the previous year's level by €283 million, due in part to currency effects. We presume that average yearly investment between 2016 and 2020 will be lower compared with 2015, after having started up operations at several major plants. Our investments in 2015 focused on the Chemicals, Oil & Gas and Performance Products segments.

In Ludwigshafen, Germany, we constructed an integrated TDI complex with a capacity of 300,000 metric tons per year and expanded the plants for its associated precursors. The gradual startup of the complex began in November 2015. TDI is an important basic chemical product that is used primarily for soft polyurethane foams.

The acrylic acid and superabsorbent production complex in Camaçari, Brazil, began operations in the second quarter of 2015, and the MDI plant in Chongqing, China, started up in August 2015. In Kuantan, Malaysia, we are building an aroma ingredients plant. The expansion of our Verbund site in Nanjing, China, is proceeding well. With these major investments, we are expanding our presence in the emerging markets of Asia and South America.

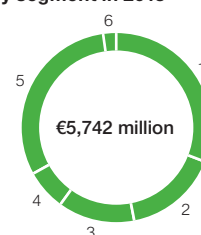
Together with Yara International ASA, based in Oslo, Norway, we began construction on an ammonia production plant in Freeport, Texas.

In the Oil & Gas segment, we invested primarily in field development projects in Argentina, Norway and Russia in 2015.

For more on investments within the segments, see page 63 onward

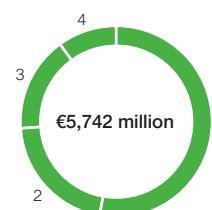
### Additions to property, plant and equipment by segment in 2015

1	Chemicals	31%
2	Performance Products	16%
3	Functional Materials & Solutions	13%
4	Agricultural Solutions	7%
5	Oil & Gas	31%
6	Other (infrastructure, R&D)	2%



### Additions to property, plant and equipment by region in 2015

1	Europe	53%
2	North America	21%
3	Asia Pacific	16%
4	South America, Africa, Middle East	10%



<sup>1</sup> Excluding additions to property, plant and equipment resulting from acquisitions, capitalized exploration, restoration obligations and IT investments

## Acquisitions

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We gained €91 million worth of property, plant and equipment through acquisitions in 2015. Additions to intangible assets including goodwill amounted to €136 million.

In Taiwan on February 12, 2015, and on the Chinese mainland on December 1, 2015, we concluded the acquisition of the business of Taiwan Sheen Soon Co. Ltd. (TWSS), based in Lukang Town, Taiwan. TWSS is a leading manufacturer of precursors for adhesives based on thermoplastic polyurethanes.

On February 18, 2015, BASF took over technologies, patents and know-how for silver nanowires from Seashell Technology LLC, based in San Diego, California. Through this acquisition, BASF has extended its product portfolio for displays.

Effective February 24, 2015, BASF acquired a 66% share from TODA KOGYO CORP., based in Hiroshima, Japan, in a company to which TODA had contributed its business with cathode materials for lithium-ion batteries, patents and production capacities in Japan. The company will focus on the research, development, production, marketing and sales of a number of cathode materials.

On March 31, 2015, BASF concluded the acquisition of the polyurethane (PU) business from Polioles, S.A. de C.V., based in Lerma, Mexico. Polioles is a joint venture with the Alpek Group in which BASF holds a 50% share and which is accounted for using the equity method. The acquisition comprised marketing and selling rights, current assets, and to a minor extent, production facilities.

On April 23, 2015, BASF concluded an agreement with Lanxess Aktiengesellschaft, based in Cologne, Germany, on the acquisition and use of technologies and patents for the production of high-molecular-weight polyisobutene (HM PIB). The transaction furthermore includes the acquisition of selling rights and current assets as well as a manufacturing agreement in which Lanxess will produce HM PIB exclusively for BASF.

📖 For more information on acquisitions, see the Notes to the Consolidated Financial Statements from page 175 onward

## Divestitures

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On March 31, 2015, we sold our business with white expandable polystyrene (EPS) in North and South America to Alpek S.A.B. de C.V., based in Monterrey, Mexico. The divestiture comprised customer lists and current assets in addition to production facilities in Canada, Brazil, Argentina and the United States. The share in Aislapol S.A., based in Santiago de Chile, Chile, was also sold to Alpek.

On June 30, 2015, we concluded the divestiture of our global textile chemicals business to Archroma Textiles S.à r.l., Luxembourg. The portfolio comprised products for pretreatment, printing and coating. The transaction furthermore involved the transfer of the subsidiary BASF Pakistan (Private) Ltd., based in Karachi, Pakistan, completed in the third quarter of 2015.

Effective July 1, 2015, we sold our 25% share in SolVin to our partner, Solvay.

On September 30, 2015, we concluded the sale of portions of the pharmaceutical ingredients and services business to Siegfried Holding AG, based in Zofingen, Switzerland. This involved the custom synthesis business and parts of the active pharmaceutical ingredients portfolio. The transaction comprised the divestiture of the production sites in Minden, Germany; Evionnaz, Switzerland; and Saint-Vulbas, France.

We concluded the sale of our global paper hydrous kaolin business to the Roswell, Georgia-based company Imerys Kaolin Inc. on November 1, 2015. The transaction involved the divestiture of the production site for kaolin processing in Wilkinson County, Georgia.

📖 For more information on divestitures, see the Notes to the Consolidated Financial Statements from page 177 onward

## Asset swap

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In the Oil & Gas segment, we concluded the swap of assets of equal value with Gazprom on September 30, 2015, with retro-active economic effect to April 1, 2013. The transaction gave BASF an economic share of 25.01% in blocks IV and V of the Achimov formation of the Urengoy natural gas and condensate field in western Siberia. Production is scheduled to start up in 2018.

In return, BASF transferred its share in the previously jointly operated gas trading and storage business to Gazprom. Gazprom furthermore became a 50% shareholder in Wintershall Noordzee B.V. in Rijswijk, Netherlands, which is active in the exploration and production of natural gas and crude oil deposits in the North Sea.

📖 For more information on the asset swap, see the Notes to the Consolidated Financial Statements from page 177 onward

## Business models and customer relations

### Cost-effective

And reliable supplier  
of classic chemicals

### Customized

With products and formulations  
for specific industries

### Innovative


In close partnership  
with our customers

BASF's customer portfolio ranges from major global customers and medium-sized businesses to local work-shops. We align our business models and sales channels with the respective customer groups and market segments. In line with our strategic principle, "We add value as one company," we tightly bundle our products and services to target the specific needs of customers from various sectors and release innovations more quickly to the market.

In the **classical chemicals business**, we mostly sell the chemicals produced in our Verbund in bulk. These comprise basic products from the Chemicals segment, such as steam cracker products, sulfuric acid, plasticizers, caprolactam and TDI. For these basic chemicals, our priority is on supplying customers reliably and cost effectively. Marketing is carried out partly via e-commerce.

We create a broad range of **customized products**, particularly in the Performance Products segment – from vitamins, personal care ingredients and color pigments to paper chemicals and plastic additives. In joint projects, we start working closely together with customers already at an early stage in order to develop new products or formulations for a specific industry. A worldwide network of development laboratories allows us to quickly adapt our products to local needs.

We offer **functionalized materials and solutions** tailored to customers' requirements, particularly in the Functional Materials & Solutions and Agricultural Solutions segments. These include, for example, engineering plastics, concrete additives, coatings and crop protection products. We engage in close partnerships with customers and develop innovations together that help them optimize their processes and applications. Our understanding of the entire value chain as well as our global setup and market knowledge are key success factors here.

 For information on customer relations in the Oil & Gas segment, see page 86 onward

### Industry orientation

- Around half of business units geared toward specific industries
- Industry teams pool cross-unit expertise, knowledge and contacts
- Industry orientation systematically and structurally enhanced

We serve customers from many different sectors with our broad portfolio of diverse competencies, processes, technologies and products. Around half of our business units are geared toward specific industries. By combining expertise and resources, we position ourselves as a solution-oriented system provider for our customers.

Yet not all business units can be arranged purely according to industry. That is why BASF has created sector-specific groups for key customer industries – like the automotive, pharmaceutical and packaging industries – or for growth fields such as wind energy. These "industry teams" pool expertise, knowledge and contacts across different units, sharpen our understanding of the value chains in customer industries and work on sector-specific solutions that often could not be developed within one operating division alone. For more than fifty years, we have worked closely with the construction industry, which has enabled numerous successful and sustainable projects. This means combining the expertise of seven divisions into one global industry team. The products and systems developed through this setup improve the durability of buildings, which themselves require fewer resources for maintenance. Furthermore, these products make buildings more energy efficient, thus protecting our environment. BASF is developing new solutions for faster and more cost-efficient construction, easy maintenance, improved insulation materials, and heat transfer by means of infrared-reflective coatings.

The close alignment of our business with our customers' needs is an important component of our "We create chemistry" strategy. We will therefore continue the systematic and structured enhancement of our industry orientation in the future.



# Working at BASF

<p><b>112,435</b> Employees around the world</p>	<p><b>Life-long learning</b> On center stage</p>	<p><b>3,240</b> Apprentices in around 60 occupations</p>
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Our employees are fundamental to achieving the goals of the “We create chemistry” strategy. We want to attract and retain talented people for our company and support them in their development. To do so, we cultivate a working environment that inspires and connects people. It is founded on inclusive leadership based on mutual trust, respect and dedication to top performance.

## Strategy

- **Best Team Strategy focuses on excellent people, workplace and leaders**

Our Best Team Strategy is derived from our corporate strategy and simultaneously contributes to the achievement of its goals. We want to form the best team. To achieve this, we focus on three strategic directions: excellent people, excellent place to work and excellent leaders. Emphasis here is placed on our attractiveness in worldwide labor markets, personal and professional development, life-long learning, and supporting and developing our leaders. We are strongly committed to internationally recognized labor and social standards and strive to respect these worldwide.

## Number of employees

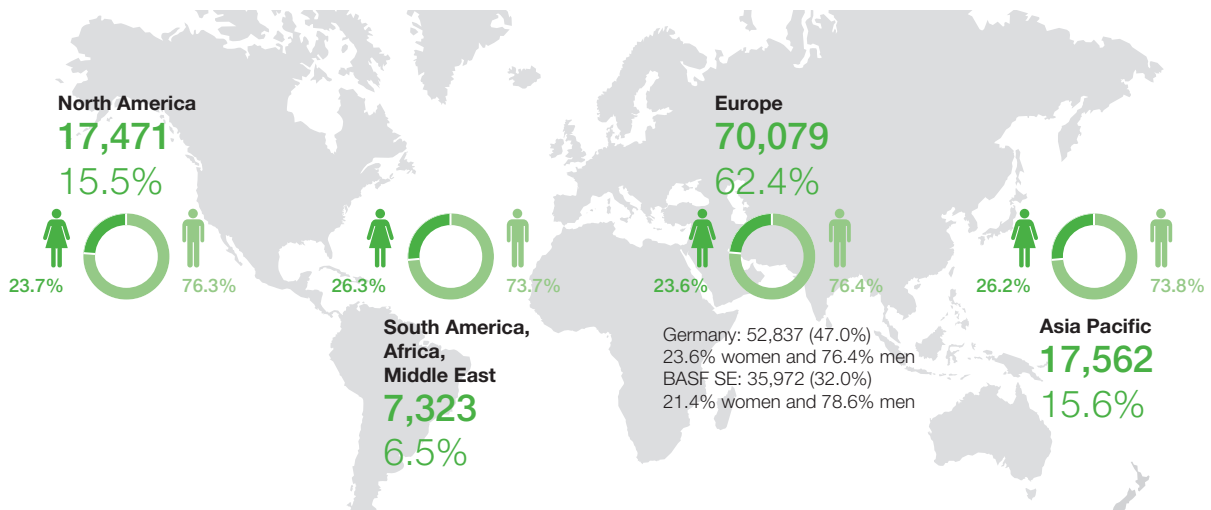
At the end of 2015, BASF had 112,435 employees (2014: 113,292); of these, 3,240 were apprentices (2014: 3,186). We hired 7,489 new employees Group-wide in 2015. Reductions in headcount came in part from the sale of portions of the pharmaceutical ingredients and services business to Siegfried Holding AG, based in Zofingen, Switzerland, as well as from the asset swap with Gazprom.

### BASF Group new hires in 2015

	December 31, 2015	Thereof women %
Europe	3,218	29.9
North America	1,731	25.0
Asia Pacific	1,861	25.1
South America, Africa, Middle East	679	31.1
<b>Total</b>	<b>7,489</b>	<b>27.7</b>

### BASF Group employees by region

(Total: 112,435, thereof 24.2% women, as of December 31, 2015)



## Competition for talent

- Career website established globally
- Good scores in employer rankings worldwide

In the global competition for the best employees and leaders, we want to recruit qualified talent in order to achieve our ambitious growth targets. This is why we have expanded the measures that make our total offer package attractive for employees. For example, we added 34 countries to our new career website in 2015, and are making even greater use of social media to reach potential candidates.

We score well in worldwide employer rankings. In a 2015 study conducted by Universum, BASF was once again selected by science and engineering students as one of the 50 most attractive employers in the world. Furthermore, BASF Corporation in the United States received the Talent Board's Candidate Experience Award for the third time in a row for our excellent performance in the management of external candidates. In Asia Pacific, we were awarded for measures such as our interactive career website.

Worldwide, the percentage of employees who resigned during their first three years of employment was 1.1% on average in 2015. This turnover rate was 0.4% in Europe, 1.9% in North America, 3.3% in Asia Pacific and 1.1% in South America, Africa, Middle East. Our turnover rates are therefore lower than those of many other companies.

## Vocational training

- 3,240 apprentices in around 60 occupations worldwide
- Around €107 million spent on vocational training

As of December 31, 2015, BASF was training 3,240 people in 15 countries and around 60 occupations. We spent a total of around €107 million on vocational training in 2015, as well as about €9 million on the BASF Training Verbund as part of our social commitment in the Rhine-Neckar Metropolitan Region.

In 2015, 886 apprentices started their vocational training at BASF SE and German Group companies, filling almost all available program slots in Germany. The current shortage of skilled labor nevertheless presents a challenge that we address with various programs and initiatives. These include *Start in den Beruf* and *Anlauf zur Ausbildung*, in which 249 young people in the BASF Training Verbund participated in cooperation with partner companies in 2015. The goal of these programs is to prepare participants for a subsequent apprenticeship within one year, making a contribution to the long-term supply of qualified employees in the Rhine-Neckar Metropolitan Region. Because the number of open vocational training placements in some fields outweighs demand, some placement slots in these programs remain unfilled. At the Ludwigshafen site, we also offer a part-time training program for newcomers from other fields, so that they can qualify for a career in chemical production even while working at their current job.

Furthermore, 20 Spanish apprentices once again began their vocational training in Tarragona, Spain, on the basis of the German vocational training model. The theoretical and practical phases take place in Tarragona and in Ludwigshafen. The apprentices are then placed in production plants after their vocational training is finished. In 2015, 16 Spanish apprentices successfully completed their training and began employment at the Ludwigshafen site at the start of 2016. We consider this program a way of expanding our recruiting pool.

Moreover, we began a program in 2015 to integrate refugees into German life. In its initial phase, "Start Integration" is offering 50 participants prospects for beginning their career through the BASF Training Verbund. With its modular structure, the program is geared toward refugees with a high probability of being granted the right to remain in Germany.

For more information, see [basf.com/apprenticeship](http://basf.com/apprenticeship)

### BASF Group employees by contract type (total: 112,435)

	December 31, 2015	Thereof women %
Permanent staff	106,901	23.7
Apprentices	3,240	27.9
Temporary staff	2,294	43.3

## Learning and development

- Life-long learning concept focuses on learning from on-the-job experience
- Learning Campus promotes further education in worldwide networks
- Specific further training for employees in production and technical fields

Our learning and development opportunities support the Best Team Strategy and have a direct connection to business. We want to enable life-long, learner-centric learning; in so doing, we follow the “70-20-10” philosophy. That means applying the elements “learning from experience” (70%), “learning from others” (20%) and “learning through courses and media” (10%). Our global Learning Campus is the central platform for the programs on offer for life-long learning. It allows employees to find the courses relevant for them. Our goal is to create a common-ground, inspiring learning experience that enables employees to connect with the company and with each other. The options cover a range of learning goals: starting a career, expanding knowledge, personal development, and leadership training. As a platform for exchange as well as for strategic and cultural shift, the concept of the Learning Campus also facilitates thinking and acting as one company.

In regular development meetings, our employees and leaders outline prospects for individual professional development together and determine measures for further training and development. This approach was implemented for around 60,000 employees by the end of 2015. Our goal is to introduce these development meetings for all BASF employees by 2017. They supplement the annual employee dialogs that are conducted in all BASF Group companies worldwide, which include an employee performance assessment component.

We spent around €96 million on further training in 2015 (2014: €101 million). Our measures for further training are based on the learning needs of our employees. Local and international seminars and workshops enable the acquisition and exchange of knowledge and promote networking. Each employee spent an average of 2.5 days on further training in 2015. Internal specialists provide our employees with career counseling.

We support the large number of employees in production and engineering worldwide with job-specific qualifications and further training. We have further strengthened our in-plant qualification measures with in-plant trainers who promote the continuous professional development of employees in production and engineering through individual learning assignments. Moreover, we expanded our programs on safety culture and knowledge management as well as team and organizational development.

## Managing demographic changes

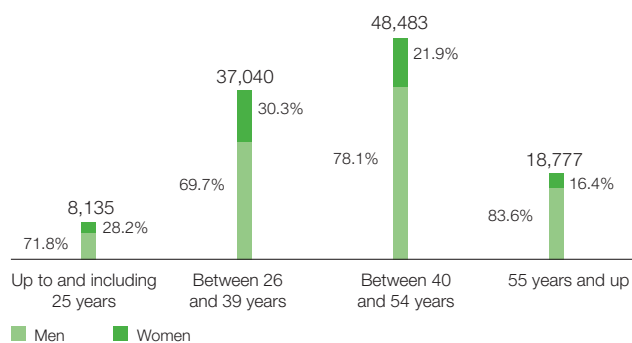
- “Leadership in times of demographic change” as a part of leadership duties
- Active knowledge management and effective succession planning

The demographic situation within the BASF Group varies widely by region. Particularly in Germany and North America, an aging population presents us with challenges. We are also intensely occupied with future issues like new technologies, growing digitalization (“Industry 4.0”), and the ever-increasing delay of retirement. We create a framework to help maintain the employability of our personnel at all stages of life and ensure the availability of qualified employees. Our employees and leaders are supported with health and exercise programs, flexible working arrangements, age-appropriate workplaces and demographic analyses. The topic “leadership in times of demographic change” also forms a part of our leadership programs. In addition, we actively engage in knowledge management and systematic succession planning.

For more on health protection, see page 101

### BASF Group employee age structure

(Total: 112,435, thereof 24.2% women, as of December 31, 2015)



## Inclusion of diversity

- Promoting diversity as part of company culture
- First global goals for increasing percentage of women in leadership positions

We want to utilize diversity for the development of our business. That is why promoting diversity is one of the mainstays of our corporate culture. The strong global character of our markets translates into different customer requirements. We want to reflect this diversity in our workforce in order to even better understand the needs of our customers. The aim is to increase our teams' performance and power of innovation, and boost creativity, motivation and identification with the company. We are therefore further promoting the appreciation and inclusion of diversity. Leaders play an important role here. We support them in strengthening diversity and making the best possible use of it in day-to-day business. For example, specific goals and measures are being developed for such topics as recognizing and developing different kinds of talent.

For the first time, BASF set itself global goals in 2015 for increasing the percentage of women in leadership positions. In the BASF Group, the global proportion of female leaders with disciplinary responsibility was 19.5% at the end of 2015 (2014: 19.1%). We aim to increase this figure to 22–24% worldwide by 2021, so that the proportion of women in leadership reflects that of women in the global company workforce. Considering the relatively low rate of turnover in the BASF Group's leadership team, this is an ambitious goal.

**2021 Goal**

Proportion of women in leadership positions with disciplinary responsibility

# 22–24%

In Germany, BASF is putting into practice the Law on Equal Participation of Women and Men in Leadership Positions in the Private and Public Sector. In accordance with these legal requirements, the Board of Executive Directors determined target figures for the proportion of women in the two leadership levels below the Board of Executive Directors of BASF SE: 9.4% for the leadership level directly below the Board, and 11.8% for the level below that. This corresponds to the status at the time these target figures were determined. Target figures were likewise defined for German Group companies subject to co-determination. The deadline for achieving these goals has been set for December 31, 2016. After that, the company will review the numbers and subsequently decide on new target figures.

Furthermore, BASF wants to continue increasing the global percentage of senior executives<sup>1</sup> that come from countries other than Germany. This figure was at 35.6% by the end of 2015. Moreover, we intend to maintain the proportion of senior executives with international experience at over 80%. We exceeded this figure by the end of 2015, reaching 82.9%. With these goals, we continue to drive our globally integrated approach to promoting diversity and leadership development.

- 📄 For more information, see [basf.com/diversity](http://basf.com/diversity)
- 📖 For more on diversity in the Board of Executive Directors and the Supervisory Board, see page 132

## Work-life balance

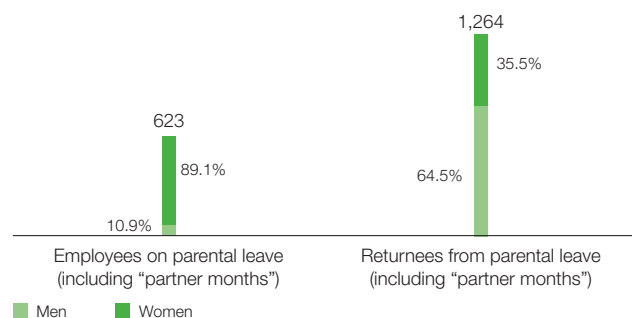
- Worldwide offers help combine career, family and private life

Our identity as an employer includes our belief in enabling our employees to better combine their work, family and private lives. Through various offers and opportunities, we create working conditions that give fair consideration to our employees' individual needs. We want to strengthen employee identification with the company and bolster our position as an attractive employer in the competition for qualified personnel.

Our offer includes flexible working hours, part-time employment and mobile working. In 2015, a total of 11.7% of BASF SE employees held part-time positions, of which 68.5% were women. Numerous BASF SE employees also made use of parental leave, including more and more fathers.

### Combining career, family and private life

(Total BASF SE employees: 35,972, thereof 21.4% women, as of December 31, 2015)



Our regional initiatives specifically address the needs of our employees at a local level. In South America, for example, we introduced the *Equilibre* program comprising a range of possibilities for flexible working hours. At our Work-Life Management employee center in Ludwigshafen ("LuMit"), there are numerous opportunities for exercise and health, employee assistance, and balancing career, family and personal life – such as the company childcare center, "LuKids." Around 600 employees take advantage of these options each day.

<sup>1</sup> The term "senior executives" refers to leadership levels 1 to 4, whereby level 1 denotes the Board of Executive Directors. In addition, individual employees can attain senior executive status by virtue of special expertise.

## What we expect from our leaders

- Leaders serve as role models
- Diverse programs for leadership development

Our leaders serve as role models in implementing our strategy in their day-to-day business. In this capacity, they contribute to BASF's business success. Our leadership culture is founded on BASF's strategic principles and values as well as on the standards of behavior set out by our globally uniform Code of Conduct. Our global Competence Model forms the basis of our employee and leadership development.

All new leaders take part in the module-based New Leader Program, which supports them in taking on a leadership role. In addition, we offer global, regional and local programs for leaders on all levels. These are geared toward strengthening our leaders' competencies and offer opportunities for networking and learning from one another. Coaching is furthermore an important measure for personal development and the promotion of talent. Leaders play a central role here as internal trainers or mentors.

### Leadership responsibility in the BASF Group

	December 31, 2015	Thereof women %
Professionals <sup>1</sup>	35,797	29.0
(Senior) executives <sup>2</sup>	9,273	19.5

<sup>1</sup> Specialists without disciplinary leadership responsibilities

<sup>2</sup> Employees with disciplinary leadership responsibilities

## Global Employee Survey

- Worldwide survey conducted for the third time

The Global Employee Survey, including its follow-up process, has been an established tool throughout the BASF Group since 2008. We conducted it for the third time in 2015. This time, the survey's design was even more closely aligned with the corporate strategy. Overall, 74% of employees in around 80 countries took part in the survey. Good results were especially returned with regard to team collaboration, occupational safety, and satisfaction with BASF as an employer. In some cases, employees saw room for improvement when it came to supporting individual development, recognizing performance, and communicating change. The results of the survey were presented to the Board of Executive Directors and the Supervisory Board. Employees and leaders subsequently discussed the results together and are developing necessary measures for improvement. The next Global Employee Survey is planned for 2018.

## Compensation and benefits

- Compensation based on employee's position and individual performance as well as company's success
- Pay generally comprises fixed and variable components plus benefits

In addition to market-oriented compensation, BASF's total offer also comprises benefits, individual opportunities for development and a good working environment. Our employees' pay is based on global compensation principles. These take into account an employee's position and individual performance as well as the company's success. Analyses of the Ludwigshafen site have shown that, for contracts exempt from collective agreements, there are no systematic differences in pay between men and women, provided the positions and qualifications are comparable.

As a rule, compensation is comprised of fixed and variable components as well as benefits that often exceed legal requirements. In many countries, these include company pension benefits, supplementary health insurance, and share programs.

On the occasion of the company's 150th anniversary, BASF Group employees worldwide received an anniversary bonus of around €100 million in total.

In 2015, the BASF Group spent €9,982 million on wages and salaries, social security contributions and expenses for pensions and assistance (2014: €9,224 million). Personnel expenses therefore rose by 8.2%, particularly owing to currency effects. Higher salaries and wages, in addition to expenses for the anniversary bonus and the long-term incentive (LTI) program, also contributed to the increase.

For more information, see the Notes to the Consolidated Financial Statements on page 189

### BASF Group personnel expenses (in million €)

	2015	2014	Change in %
Wages and salaries	7,943	7,380	7.6
Social security contributions and expenses for pensions and assistance	2,039	1,844	10.6
Thereof for pension benefits	658	560	17.5
<b>Total personnel expenses</b>	<b>9,982</b>	<b>9,224</b>	<b>8.2</b>



## Employees participate in company's success

- Return on assets determines variable compensation
- BASF share program "plus" fosters employees' long-term participation in company

With variable compensation components, employees participate in the company's success and are rewarded for their individual performance. The same principles basically apply for all employees. The amount of the variable component is determined by the success of the company – measured by the return on assets of the BASF Group – and the employee's individual performance. Individual performance is assessed using a globally consistent performance management approach. The annual bonus for the 2015 business year is not as high as in 2014 due to the lower return on assets.

In numerous Group companies, employees are offered the chance to purchase shares. The BASF share program "plus" sponsors the long-term participation of our employees in the company through incentive shares: By investing a portion of their compensation in BASF shares, they take part in the long-term development of BASF.


BASF offers its executives the opportunity to participate in a share-price-based compensation program. This long-term incentive (LTI) program ties a portion of their compensation to the long-term performance of BASF shares. In 2015, 93% of the approximately 1,200 eligible executives worldwide participated in the LTI program, investing up to 30% of their variable compensation in BASF shares.

 For more information, see the Notes to the Consolidated Financial Statements from page 218 onward

## Dialog with employee representatives

Open dialog with employee representatives is an important component of our corporate culture. If restructuring leads to staff downsizing, we work with employee representatives to develop socially responsible implementation measures. This is done in accordance with the respective legal regulations and the agreements reached. For cross-border matters, the *BASF Europa Betriebsrat* (European Works Council) has been responsible for employees in Europe since 2008.

We signed a new site agreement in Ludwigshafen, Germany – the BASF Group's largest site – with employee representatives in 2015. It applies for all employees of BASF SE. Titled "Meeting the challenges of constant change together," the agreement addresses job security, flexibility and ensuring competitive ability.

 For more information, see [basf.com/employeerepresentation](http://basf.com/employeerepresentation)

## Global labor and social standards

- Alignment with U.N. Guiding Principles on Business and Human Rights
- Adjusted management process for monitoring adherence to labor and social standards

Our voluntary commitment to respecting international labor and social standards is embedded in our global Code of Conduct. This encompasses internationally recognized labor norms as stipulated in the United Nations' Universal Declaration of Human Rights, the OECD Guidelines for Multinational Enterprises, and the Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy of the International Labour Organization (ILO). BASF strives to uphold these standards worldwide. In countries where national laws, rules and customs deviate from international standards, we take on the challenge of finding appropriate solutions that respect local customs by engaging in dialog with stakeholders.

We check regard for international labor and social standards using a global monitoring system comprising three instruments:

- External compliance hotlines
- The annual survey of our Group companies
- Close dialog with our stakeholders, such as employee representatives and international organizations

In order to even better inspect compliance with international labor and social standards around the world, we began restructuring our management process in 2015. Step by step, the annual survey of our Group companies will be replaced with a process through which we can more efficiently monitor worldwide adherence to international labor standards based on a globally applicable BASF guideline. The management process is geared toward internal regulations on compliance and risk management, as well as requirements with respect to the U.N.'s Guiding Principles on Business and Human Rights.

 For more on labor and social standards, see [basf.com/labor\\_social\\_standards](http://basf.com/labor_social_standards)

 For more on worldwide standards, see page 26

For more on our sustainability-related risk management, see page 31

For more on compliance, see page 136 onward



## Social commitment

<p><b>€56.2 million</b></p> <p>Spent on donations, sponsorship and BASF Group's own projects</p>	<p><b>87,032</b></p> <p>Participants in Kids' Labs and Teens' Labs worldwide</p>	<p><b>€377,000</b></p> <p>Collected in 2015 year-end donation campaign</p>
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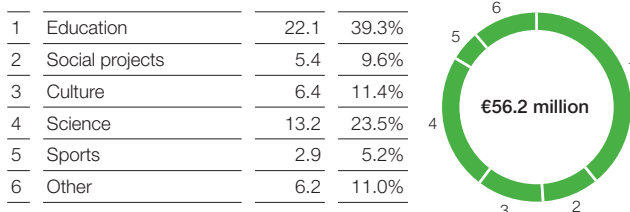
**We take on social responsibility: We are involved in diverse projects worldwide, especially in the communities where our sites are located. Our main focus is on access to education. In this way, we promote innovative capacity and future viability.**

### Strategy

In 2015, the BASF Group spent a total of €56.2 million supporting projects (2014: €45.4 million). Of this amount, we donated 46% (2014: 32%). We support initiatives that reach out to as many people as possible and have long-term impact. We foster education, science, social projects, sports and cultural events in the communities around our sites. On a regional level, we work together with universities, schools and nonprofit organizations. We support BASF Stiftung, a charitable foundation, in its international projects with various U.N. and nongovernmental organizations.

Starting in 2016, we want to focus our social commitment even more on making an impact, and we have developed a new, global strategy for achieving this. We want to put life-long learning on center stage and define global and regional focus topics to which our activities can make a targeted contribution.

**BASF Group donations, sponsorship and own projects in 2015**  
(in million €)



### Focus on education

- **BASF organizes 50th *Jugend forscht* national youth science competition**
- **Experts convene for tenth anniversary of *Offensive Bildung* early-childhood education initiative**

In 2015, 87,032 children and young people visited our Kids' Labs and Teens' Labs in 31 countries. We started a new experiment program in 2015 entitled "Keep cool!" in which 10,406 children participated around the world.

BASF hosted the 50th *Jugend forscht* national youth science competition in our 2015 anniversary year; 195 young people qualified for the competition with 113 projects. The winners were honored in Ludwigshafen in the company of German Federal President Joachim Gauck.

With the *Offensive Bildung* initiative, BASF and its partners have been involved in education in day care centers and primary schools for ten years. More than 500 education specialists discussed the initiative's future and successes at an expert convention in Ludwigshafen in 2015.

As a founding member of the *Wissensfabrik*, BASF is part of a nationwide network of more than 120 companies and foundations that have been making a contribution to education and entrepreneurship in Germany since 2005.

### Focus on refugees and migration

- **Supporting integration projects in the Rhine-Neckar Metropolitan Region**
- **BASF Stiftung's humanitarian engagement**

BASF SE has already been supporting over 20 refugee integration projects in the Rhine-Neckar Metropolitan Region since 2014. These include language courses and integration programs for children and families, as well as theater and crafts projects. BASF's global "Connected to Care" competition to promote employees' charitable involvement also supported employee-organized integration projects. Connected to Care won the Human Resources Manager magazine's HR Excellence Award in 2015.

As part of its humanitarian development collaboration, BASF Stiftung has supported various United Nations projects since 2012 – along with other international nongovernmental organizations – in their efforts to deal with the effects of refugeeism and migration. The company and its employees gave €377,000 to BASF Stiftung in the 2015 year-end donation campaign for the United Nations Children's Fund (UNICEF) supporting an education and integration program in Jordan.

For more information, see [basf.com/international\\_donations](http://basf.com/international_donations)



# The BASF Group business year

## Economic environment

2.4%

Growth in global gross  
domestic product

2.0%

Growth in global  
industrial production

3.6%

Growth in global  
chemical industry

The global economy grew only moderately in 2015, slowing down over the course of the year. Dampening effects came primarily from the emerging markets. Growth in the European Union was positive, yet remained at a low level. After a weak start to 2015, the U.S. economy stabilized over the course of the year. In China, however, industrial production and demand for imports both slowed considerably compared with 2014. This development also weakened momentum for China's trading partners and weighed down raw material prices. Important countries such as Russia and Brazil found themselves in a recession. Overall, global gross domestic product grew by only 2.4%, remaining behind 2014 (+2.6%<sup>1</sup>) and our expectations for 2015 (+2.8%). The average price for a barrel of Brent blend crude oil fell to \$52 per barrel (2014: \$99 per barrel).

For the outlook for the economic environment in 2016, see page 121 onward

### Trends in the global economy in 2015

Growth in the global economy was marked by diverging developments in the advanced economies and the emerging markets. In the European Union and the United States, consumers benefited from low energy prices and rising real income. The result was increased demand for consumer goods, stabilizing the economy in these regions. The economic cooldown in China, however, dampened growth in Asia and South America in particular. Russia's recession intensified on account of the low oil prices as well as the continuing trade sanctions. Furthermore, many emerging-market currencies depreciated sharply in anticipation of interest rate hikes in the United States. Although this boosted these countries' competitiveness in terms of export prices, it also led to further capital outflow and higher inflation rates.

### Gross domestic product

(Real change compared with previous year<sup>1</sup>)

World	2015	2.4%	
	2014	2.6%	
European Union	2015	1.8%	
	2014	1.4%	
United States	2015	2.4%	
	2014	2.4%	
Emerging markets of Asia	2015	6.2%	
	2014	6.5%	
Japan	2015	0.4%	
	2014	(0.1%)	
South America	2015	(2.1%)	
	2014	0.4%	

### Economic trends by region

- Growth somewhat stronger in European Union
- U.S. economy initially below expectations, picks up as year progresses
- Economic cooldown in China weakens growth in emerging markets of Asia and South America

At 1.8%, gross domestic product in the **European Union** grew somewhat faster than in the previous year (2014: +1.4%). Solid growth rates were seen in northwestern Europe, particularly the United Kingdom, Sweden and Ireland. The economy in southern Europe was able to continue stabilizing – especially in Spain, which saw growth of 3.2%. France and Italy were also able to slightly expand their gross domestic product. Adjusted for number of working days, the German economy only grew moderately, by 1.4%. Major drivers here were above-average wage and salary increases, along with low inflation rates, significantly increasing the purchasing power of private households. Positive stimulus was also provided by the eurozone's demand for exports. Demand was weaker from outside the eurozone, especially China.

The countries in central and eastern Europe developed positively in light of low energy prices, rising export demand from the eurozone, and comparatively low interest rates. In Russia (–3.7%), however, the recession intensified in an environment of low oil prices, a weak ruble and ongoing trade sanctions.

<sup>1</sup> Figures that refer to previous years could deviate from last year's report due to statistical revisions.

In the first quarter of 2015, growth in the **United States** remained considerably behind our expectations on account of unfavorable weather conditions and long-running harbor strikes that negatively impacted exports. Yet the U.S. economy was able to stabilize over the course of the year (+2.4%). Private consumption, employment, and wages and salaries all developed well while the inflation rate remained low. Low interest rates spurred growth in the construction and automotive sector.

Growth continued to weaken in the **emerging markets of Asia**, although it remained at a high level (+6.2%). In China, growth especially decelerated in the manufacturing industry and the construction sector. The Chinese government combated this economic cooldown with monetary and fiscal measures. The slowdown in China also dampened economic activity in neighboring Asian countries; South Korea, Taiwan, Singapore and Malaysia all saw substantially lower growth rates than in the previous year.

**Japan** was also negatively affected by developments in China, its most important trading partner apart from the United States. Despite the depreciation of the yen against other currencies, exports to China and to Europe and the United States remained modest. Private consumption and the propensity for investment were also dampened. Gross domestic product was hardly able to grow in these conditions (+0.4%).

In **South America**, gross domestic product shrank by 2.1% overall in 2015. Many countries in the region suffered from China's weaker demand for raw materials, as well as from falling raw material prices. Brazil fell into a severe recession. As a result of the 32% drop in value of the Brazilian real over the course of the year, consumers and producers were left struggling with rising prices for imported goods. Deteriorating economic conditions and a crisis of confidence in the government brought consumer sentiment and investor confidence to record lows. The Argentinian peso also depreciated by around 30% compared with the average of the previous months after exchange rates were allowed to float in December.

### Trends in key customer industries

- Substantially weaker growth in global industrial production compared with 2014
- Development in key customer industries also weaker than in previous year

Global industrial production grew by around 2% in 2015, considerably more slowly than in the previous year (+3.5%) and far below our expectation of 3.6%. It decelerated substantially in both the advanced economies (2015: +0.9%, 2014: +2.4%) and in the emerging markets (2015: +3.1%, 2014: +4.6%).

In the European Union, industrial growth was able to expand slightly from 1.3% to 1.5%, whereas North America saw a substantial overall decline from 3.4% to 1.2%. At 5.4%, industrial growth in the emerging markets of Asia remained around 1.7 percentage points behind the previous year's levels. Industry in China grew at only 6.1%, a rate considerably slower than in previous years. South America fell into a downright slump: Industrial production in Brazil shrank by 8.4%.

Against this backdrop, growth in key customer industries and in the chemical industry also remained below prior-year levels. Automotive manufacturing saw considerably slower growth due to sales developments in China, South America and Russia. In the construction industry, China's economic cooldown and the sharp decline in construction activities in Russia and Brazil led to lower growth rates worldwide. Agriculture grew by 2.1%, somewhat behind the previous year's rate but with regional developments varying widely.

#### Growth in key customer industries

(Real change compared with previous year<sup>1</sup>)

Industry	2015	2014
<b>Industry total</b>	<b>2.0%</b>	3.5%
Transportation	1.4%	3.6%
Energy and resources	0.7%	2.4%
Construction	2.5%	3.4%
Consumer goods	2.4%	3.0%
Electronics	3.5%	4.2%
Health and nutrition	3.2%	3.6%
Agriculture	2.1%	2.8%

<sup>1</sup> Figures that refer to previous years could deviate from last year's report due to statistical revisions.

#### BASF sales by industry

(Direct customers)

>15%	Chemicals and plastics   Energy and resources
10–15%	Consumer goods   Transportation
5–10%	Agriculture   Construction
<5%	Health and nutrition   Electronics

### Trends in the chemical industry

#### ■ Growth below our expectations

In light of the dampened dynamic in its key customer industries, the chemical industry (excluding pharmaceuticals) grew by 3.6%. Our original forecast of 4.2% had been much higher. This development was largely a factor of slower momentum in China, the world's largest chemical market. There, chemical production gained 7.0%, around 2.3 percentage points under the previous year's rate.

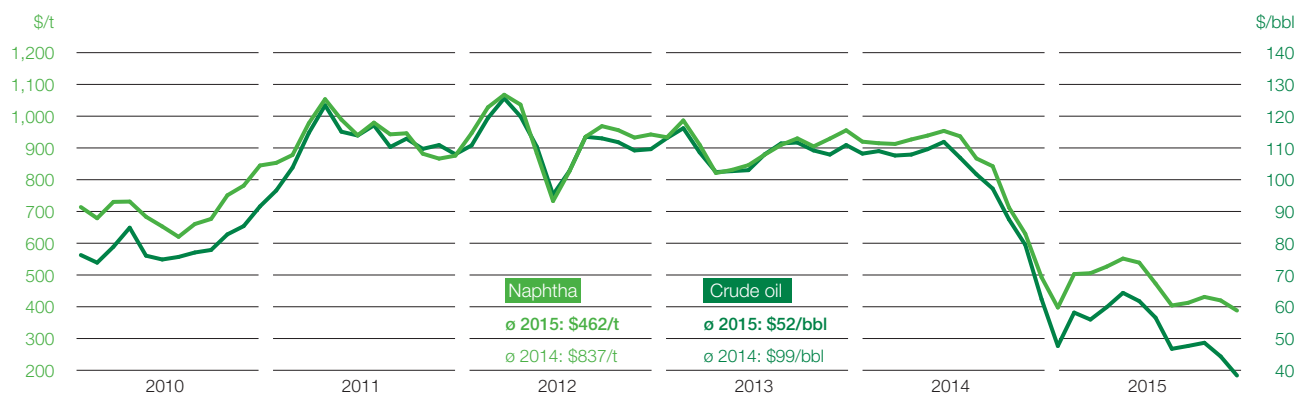
Growing at 0.3% (2014: +0.6%), the chemical industry in the European Union continued to lag behind the total industry. As in the previous year, momentum was provided by the United Kingdom and the eastern E.U. countries. Chemical production again declined slightly in Germany. In the United States, the 3.5% growth rate was 2.1 percentage points stronger than in the previous year, although momentum decelerated as the year progressed. At -1.7%, chemical production in South America declined at the same rate as in the previous year. Production volumes rose slightly in Japan, growing by 1.6% (2014: -0.8%).

**Chemical production (excluding pharmaceuticals)**  
(Real change compared with previous year<sup>1</sup>)

World	2015	3.6%
	2014	3.5%
European Union	2015	0.3%
	2014	0.6%
United States	2015	3.5%
	2014	1.4%
Emerging markets of Asia	2015	6.4%
	2014	7.5%
Japan	2015	1.6%
	2014	(0.8%)
South America	2015	(1.7%)
	2014	(1.7%)

<sup>1</sup> Figures that refer to previous years could deviate from last year's report due to statistical revisions.

**Price trends for crude oil (Brent blend) and naphtha (\$/barrel, \$/metric ton)**



<sup>2</sup> As opposed to the prior year's reports, European gas prices on the spot market are reported here, as they are meanwhile more representative of the actual traded gas volumes than the previously referenced European gas import prices. According to the definition used previously, the price of European gas imports was \$7.3 per mmBtu in 2015 (2014: \$10.1 mmBtu).

### Important raw material price developments

- Prices continue to fall for crude oil and naphtha
- Gas prices below previous year's level

At an average of around \$52 per barrel in 2015, the price of Brent blend **crude oil** dropped by 47% compared with the previous year (\$99 per barrel). The oil price fluctuated over the course of the year between \$64 per barrel in May and \$38 per barrel in December.

Average monthly prices for the chemical raw material **naphtha** ranged over the course of 2015 between \$551 per metric ton in May and \$387 per metric ton in December. At \$462 per metric ton, the annualized average price of naphtha in 2015 was below the level of 2014 (\$837 per metric ton).

The average price of gas in the United States was \$2.61 per mmBtu, below the level of the previous year (\$4.37 per mmBtu). In Europe, the average **price of gas** on spot markets remained substantially higher, at \$6.49 per mmBtu (2014: \$8.21 per mmBtu).<sup>2</sup> Gas prices in China were around \$9.81 per mmBtu on national average, while the average price in the coastal regions was \$11.20 per mmBtu.



## Results of operations

The market environment continued to be volatile and challenging in 2015. Growth rates for the global economy, industrial production and the chemical industry all lagged considerably behind our expectations. The economic environment deteriorated in important emerging markets, especially China. The sharp drop in the price of oil led to falling prices for basic chemicals in particular. The divestitures completed in 2015 also put a strain on both sales and income from operations (EBIT) before special items. Impairments in the Oil & Gas segment resulting from the reduced forecast for oil and gas prices led to considerably lower EBIT. In light of these factors, our overall business development remained behind our expectations.

### Sales and income from operations before special items

- Sales decline by 5% to €70,449 million
- At €6,739 million, income from operations before special items 8% below prior-year level

Sales decreased by €3,877 million to €70,449 million in 2015, largely on account of the significant drop in prices – especially in the Chemicals segment – in relation to oil price developments. In addition, the asset swap with Gazprom completed at the end of September particularly contributed to the decline. This transaction meant the discontinuation of contributions to the Oil & Gas segment mainly from the natural gas trading and storage business as of the fourth quarter of 2015. We could only partly compensate for this through sales increases in the other three segments.

At €6,739 million, income from operations before special items was 8% below the level of the previous year. Major influences here were the oil-price-related decline in sales from our oil and gas production as well as decreased earnings in Other, which was particularly the result of currency effects. Earnings increased slightly in the chemicals business<sup>1</sup> but fell slightly in the Agricultural Solutions segment.

For more information on income from operations, see page 54

#### Sales (in million €)

Year	Sales (in million €)
2015	70,449
2014	74,326
2013	73,973
2012	72,129

#### Income from operations before special items (in million €)

Year	Income (in million €)
2015	6,739
2014	7,357
2013	7,077
2012	6,647

### Factors influencing sales

Sales volumes in 2015 rose slightly overall, mainly as a result of higher volumes in the Oil & Gas segment. Volumes were slightly down overall in the chemicals business. Sales prices fell in nearly all divisions, strongly affected by the sharp drop in raw material prices. We were able to raise volumes and prices in the Agricultural Solutions segment. Currency effects positively influenced sales in all segments. Sales were reduced by the asset swap with Gazprom, through which contributions to the Oil & Gas segment from the gas trading and storage business in particular ceased as of the fourth quarter of 2015.

#### Factors influencing sales of the BASF Group

	Change in million €	Change in %
Volumes	1,851	3
Prices	(6,339)	(9)
Currencies	4,280	6
Acquisitions	387	1
Divestitures	(3,948)	(6)
Changes in scope of consolidation	(108)	0
<b>Total change in sales</b>	<b>(3,877)</b>	<b>(5)</b>

### Sales and income from operations before special items in the segments

Sales in the **Chemicals** segment declined by 14%, largely due to lower prices on account of decreased raw material costs, especially in the Petrochemicals division. Income from operations before special items fell by 9% compared with the previous year. This was primarily attributable to the declining TDI margins in the Monomers division as well as rising fixed costs from the startup of new production plants, such as in Camaçari, Brazil, and Chongqing, China.

In the **Performance Products** segment, sales were up by 1%. Positive currency effects in all divisions were able to more than compensate for lower sales prices and weaker volumes. Income from operations before special items was 6% below the prior year's level because of higher fixed costs. These resulted from negative currency effects, the startup of new plants – such as those in Camaçari, Brazil, and Freeport, Texas – and inventory reductions.

<sup>1</sup> Our chemicals business comprises the Chemicals, Performance Products and Functional Materials & Solutions segments.

**Sales and earnings** (in million €)

	2015	2014	Change in %
Sales	70,449	74,326	(5.2)
Income from operations before depreciation and amortization (EBITDA) <sup>1</sup>	10,649	11,043	(3.6)
EBITDA margin %	15.1	14.9	–
Income from operations (EBIT) before special items	6,739	7,357	(8.4)
Income from operations (EBIT)	6,248	7,626	(18.1)
Financial result	(700)	(423)	(65.5)
Income before taxes and minority interests	5,548	7,203	(23.0)
Income before minority interests	4,301	5,492	(21.7)
Net income	3,987	5,155	(22.7)
Earnings per share €	4.34	5.61	(22.6)
Adjusted earnings per share €	5.00	5.44	(8.1)

**Sales and earnings by quarter in 2015<sup>2</sup>** (in million €)

	1st quarter	2nd quarter	3rd quarter	4th quarter	Full year
Sales	20,067	19,078	17,424	13,880	70,449
Income from operations before depreciation and amortization (EBITDA)	2,890	2,994	2,872	1,893	10,649
Income from operations (EBIT) before special items	2,070	2,043	1,603	1,023	6,739
Income from operations (EBIT)	1,995	2,039	1,889	325	6,248
Financial result	(164)	(152)	(175)	(209)	(700)
Income before taxes and minority interests	1,831	1,887	1,714	116	5,548
Net income	1,174	1,265	1,209	339	3,987
Earnings per share €	1.28	1.38	1.31	0.37	4.34
Adjusted earnings per share €	1.43	1.49	1.07	1.01	5.00

**Sales and earnings by quarter in 2014<sup>2,3</sup>** (in million €)

	1st quarter	2nd quarter	3rd quarter	4th quarter	Full year
Sales	19,512	18,455	18,312	18,047	74,326
Income from operations before depreciation and amortization (EBITDA)	2,951	2,705	2,514	2,873	11,043
Income from operations (EBIT) before special items	2,112	2,012	1,774	1,459	7,357
Income from operations (EBIT)	2,221	1,933	1,742	1,730	7,626
Financial result	(183)	(136)	(169)	65	(423)
Income before taxes and minority interests	2,038	1,797	1,573	1,795	7,203
Net income	1,464	1,259	1,014	1,418	5,155
Earnings per share €	1.59	1.37	1.11	1.54	5.61
Adjusted earnings per share €	1.63	1.53	1.24	1.04	5.44

<sup>1</sup> With EBITDA of €10,649 million achieved in 2015, we confirmed the estimated range of €10 billion to €12 billion we announced in October 2014.

<sup>2</sup> Quarterly figures represent unaudited supplementary information.

<sup>3</sup> The figures for the first three quarters of 2014 were adjusted to reflect the dissolution of the gas trading business disposal group at the end of 2014. For more information, see the "Restated Figures 2013 and 2014" brochure at [basf.com/publications](http://basf.com/publications).

We raised sales by 5% in the **Functional Materials & Solutions** segment thanks to positive currency effects in all divisions. Prices declined slightly overall, with volumes stable. We improved income from operations before special items by 38%, mainly because of the considerable earnings increase in the Performance Materials and Construction Chemicals divisions.

Sales in the **Agricultural Solutions** segment exceeded the level of 2014 by 7%, primarily driven by higher sales prices. Over the course of the year, we experienced a slowdown in demand for crop protection products, while prices for agricultural products remained low. In emerging markets in particular, our business development was hindered by the volatile environment and depreciation of local currencies. Income from operations before special items was down by 2%. This was primarily attributable to higher fixed costs, mainly through a decrease in plant capacity utilization rates from the startup of new production capacities, along with reductions in inventories.

Sales declined by 14% in the **Oil & Gas** segment in 2015. This was largely a result of the asset swap with Gazprom completed at the end of September, through which contributions from the natural gas trading and storage business, as well as from Wintershall Noordzee B.V., ceased as of the fourth quarter of 2015. The significant drop in the price of oil led to slightly lower sales in the Exploration & Production business sector. Higher volumes in both the Exploration & Production and Natural Gas Trading business sectors had a positive effect on sales. Income from operations before special items declined by 24% as a result of the reduced sales level.

Sales in **Other** shrank by 23%, mainly on account of a reduced contribution from raw materials trading. The decline was also influenced by the disposal of our share in the Ellba Eastern Private Ltd. joint operation in Singapore at the end of 2014, as well as by lower plant availability from the outage at the Ellba C.V. joint operation in Moerdijk, Netherlands. Income from operations before special items dropped by 57% compared with the previous year. Major factors were a lower currency result and higher expenses for provisions for our long-term incentive program.

For more on business reviews by segment, see page 61 onward

## Income from operations and special items

- Income from operations declines considerably
- Premium once again earned on cost of capital

At €6,248 million, income from operations for the BASF Group in 2015 was considerably below the previous year's level (€7,626 million).

Included in this figure is income from companies accounted for using the equity method, which declined from €273 million to €251 million.

Special items in 2015 resulted in an earnings contribution to EBIT of minus €491 million (2014: €269 million). This was largely the result of other special charges and income totaling minus €729 million, mostly from impairments on assets in the Oil & Gas segment. In 2014, other special charges and income totaling minus €369 million had especially pertained to impairment charges in the Oil & Gas, Chemicals, and Functional Materials & Solutions segments.

Divestitures in 2015 resulted in an earnings contribution of €476 million (2014: €712 million). This amount included the asset swap with Gazprom as well as the disposal of the white expandable polystyrene (EPS) business, the global textile chemicals business, and parts of the pharmaceutical ingredients and services business.

Compared with 2014, special charges from various restructuring measures rose by €155 million to €223 million and expenses for the integration of acquired businesses by €9 million to €15 million.

We once again earned a premium on our cost of capital in 2015. EBIT after cost of capital amounted to €194 million after €1,368 million in the previous year. Cost of capital increased particularly as a result of the higher amount of fixed assets. Contrasting this was the reduction of inventories and other receivables.

For more on the calculation of EBIT after cost of capital, see page 30

### Special items (in million €)

	2015	2014
Integration costs	(15)	(6)
Restructuring measures	(223)	(68)
Divestitures	476	712
Other charges and income	(729)	(369)
<b>Total special items in income from operations (EBIT)</b>	<b>(491)</b>	<b>269</b>
Special items reported in financial result	23	197
<b>Total special items in earnings before taxes</b>	<b>(468)</b>	<b>466</b>

## Financial result and net income

- Financial result and net income considerably down year-on-year
- Earnings per share declines from €5.61 to €4.34

The financial result fell to minus €700 million in 2015, compared with minus €423 million in the previous year.

Income from shareholdings decreased from €278 million in 2014 to €9 million. The previous year had contained special income of €220 million from the disposal of our shares in VNG – Verbundnetz Gas AG.

The interest result improved from minus €504 million in 2014 to minus €425 million, largely due to lower interest expenses from financial indebtedness as a result of more favorable refinancing conditions.

Other financial result declined from minus €197 million in the previous year to minus €284 million in 2015. The main reason for this was a higher net interest expense from underfunded pension plans and similar obligations, in addition to a higher level of other financial expenses resulting primarily from hedging expenses.

Earnings before taxes decreased by €1,655 million in 2015 to €5,548 million. Return on assets<sup>1</sup> amounted to 8.7%, compared with 11.7% in the previous year.

Income taxes were reduced from €1,711 million in 2014 to €1,247 million in 2015. The tax rate fell from 23.8% to 22.5%, predominantly due to lower earnings contributions in countries with higher tax rates, especially Norway, as compared with the prior year.

Income before minority interests declined from €5,492 million to €4,301 million. Minority interests amounted to €314 million, compared with €337 million in 2014.

Net income amounted to €3,987 million, below the previous year's level of €5,155 million. Earnings per share dipped from €5.61 to €4.34.

For information on the items in the statement of income, see the Notes to the Consolidated Financial Statements from page 183 onward

For information on the tax rate, see the Notes to the Consolidated Financial Statements from page 186 onward

## Adjusted earnings per share

- At €5.00, adjusted earnings per share down by €0.44

By eliminating special items and the amortization of intangible assets, adjusted earnings per share serves as a more suitable ratio for long-term comparability and predicting the company's future profitability. In 2015, adjusted earnings per share amounted to €5.00 compared with €5.44 in the previous year.

### Adjusted earnings per share (in million €)

	2015	2014
Income before taxes and minority interests	5,548	7,203
Special items	468	(466)
Amortization of intangible assets	801	647
Amortization of intangible assets contained in special items	(200)	(55)
<b>Adjusted income before taxes and minority interests</b>	<b>6,617</b>	<b>7,329</b>
Adjusted income taxes	(1,716)	(1,973)
<b>Adjusted income before minority interests</b>	<b>4,901</b>	<b>5,356</b>
Adjusted minority interests	(312)	(357)
<b>Adjusted net income</b>	<b>4,589</b>	<b>4,999</b>
Weighted average number of outstanding shares (in thousands)	918,479	918,479
<b>Adjusted earnings per share (€)</b>	<b>5.00</b>	<b>5.44</b>

Adjusted income before taxes and minority interests, adjusted net income and adjusted earnings per share are key ratios that are not defined under International Financial Reporting Standards (IFRS). They should therefore be viewed as supplementary information.

For more information on the earnings per share according to IFRS, see the Notes to the Consolidated Financial Statements on page 182

<sup>1</sup> Return on assets is calculated as income before taxes and minority interests plus interest expenses as a percentage of average assets.

Forecast/actual comparison<sup>1</sup>

	Sales		Income from operations (EBIT) before special items	
	2015 forecast	2015 actual	2015 forecast	2015 actual
Chemicals	slight decline	considerable decline	slight decline	slight decline
Performance Products	considerable increase	slight increase	considerable increase	slight decline
Functional Materials & Solutions	considerable increase	slight increase	considerable increase	considerable increase
Agricultural Solutions	considerable increase	considerable increase	considerable increase	slight decline
Oil & Gas	slight decline	considerable decline	considerable decline	considerable decline
Other	considerable decline	considerable decline	slight decline	considerable decline
<b>BASF Group</b>	<b>slight increase</b>	<b>slight decline</b>	<b>at prior-year level</b>	<b>slight decline</b>

<sup>1</sup> For sales, "slight" represents a change of 1–5%, while "considerable" applies to changes of 6% and higher. "At prior-year level" indicates no change (+/-0%). For earnings, "slight" means a change of 1–10%, while "considerable" is used for changes of 11% and higher. "At prior-year level" indicates no change (+/-0%).

Actual development compared with outlook for 2015

For 2015, we had anticipated a slight increase in sales and posted a slight decline. This was predominantly an effect of the sharp drop in oil prices as well as the divestiture of the gas trading and storage business at the end of September 2015. We were able to raise our sales volumes excluding the effects of acquisitions and divestitures, as predicted. Income from operations before special items did not match the previous year's level as expected, but rather decreased slightly. It was especially down in the Performance Products segment, although earnings in the Agricultural Solutions segment and in Other were also weaker than anticipated. The impairments in the Oil & Gas segment made necessary by our reduced oil and gas price forecast particularly contributed to a significant – and therefore unexpectedly sharp – decline in income from operations. The considerably lower EBIT after cost of capital corresponds to our forecast.

Declining considerably rather than slightly, sales in the **Chemicals** segment lagged behind our expectations. This was largely the result of an even lower level of oil and gas prices than we had assumed, which led to a sharp drop in prices in some business areas. Income from operations before special items was slightly below prior-year levels, as predicted.

Sales grew slightly in the **Performance Products** segment, and thus somewhat below our expectations. With positive currency effects and lower sales prices, volumes declined slightly, contrary to our assumptions. Contributing factors here included intense competition in the pigments business; the significant, oil-price-related decrease in demand for oilfield chemicals; and the sale of parts of our pharmaceutical ingredients and services business as well as of our textile chemicals business. The considerable rise expected in income from operations before special items could not be achieved; we posted a slight decline. Earnings were particularly below our expectations in the Care Chemicals and Nutrition & Health divisions.

In the **Functional Materials & Solutions** segment, we raised sales by 5%, which was just below the considerable growth we had predicted. Higher demand, primarily from the automotive industry, was unable to offset lower sales in precious metal trading. Weighed down by the price of oil, prices in the Performance Materials division also put a strain on sales. We achieved a considerable increase in income from operations before special items, as planned.

Sales in the **Agricultural Solutions** segment grew considerably, in line with our expectations. With income from operations before special items slightly below 2014 levels, we did not achieve our ambitious aim of considerable improvement. Dampened demand and higher fixed costs from decreased plant capacity utilization and simultaneous inventory reductions had a more negative impact on our business than expected.

We had anticipated a slight sales decline in the **Oil & Gas** segment. Our 2015 planning had not included the asset swap with Gazprom. The completion of the asset swap at the end of September 2015 resulted in the discontinuation of contributions mainly from the natural gas trading and storage business as of the fourth quarter of 2015, which is usually a seasonally strong quarter. Sales therefore fell considerably. The considerably lower level of income from operations before special items conforms to our expectations.

Sales in **Other** decreased considerably, as predicted. Contrary to our expectations, income from operations before special items declined considerably, owing to a lower currency result not allocated to the segments.

We invested a total of €5.2 billion<sup>1</sup> in property, plant and equipment in 2015, exceeding the forecasted amount of around €4.0 billion. This higher level of investment is partly attributable to currency effects and to expenditures on non-BASF-operated field development projects in the Oil & Gas segment.

<sup>1</sup> For information on our expectations for 2016, see page 124 onward

<sup>1</sup> Excluding additions to property, plant and equipment resulting from acquisitions, capitalized exploration, restoration obligations and IT investments



## Net assets

### Assets

	December 31, 2015		December 31, 2014	
	million €	%	million €	%
Intangible assets	12,537	17.7	12,967	18.2
Property, plant and equipment	25,260	35.7	23,496	32.9
Investments accounted for using the equity method	4,436	6.3	3,245	4.5
Other financial assets	526	0.7	540	0.8
Deferred taxes	1,791	2.5	2,193	3.1
Other receivables and miscellaneous assets	1,720	2.4	1,498	2.1
<b>Noncurrent assets</b>	<b>46,270</b>	<b>65.3</b>	<b>43,939</b>	<b>61.6</b>
Inventories	9,693	13.7	11,266	15.8
Accounts receivable, trade	9,516	13.4	10,385	14.6
Other receivables and miscellaneous assets	3,095	4.4	4,032	5.6
Marketable securities	21	.	19	.
Cash and cash equivalents	2,241	3.2	1,718	2.4
<b>Current assets</b>	<b>24,566</b>	<b>34.7</b>	<b>27,420</b>	<b>38.4</b>
<b>Total assets</b>	<b>70,836</b>	<b>100.0</b>	<b>71,359</b>	<b>100.0</b>

### Assets

- Total assets slightly below prior-year level
- Noncurrent assets rise, mostly through investments
- Current assets decline, mainly due to asset swap with Gazprom

Amounting to €70,836 million, the level of total assets was €523 million below that of the previous year.

Noncurrent assets grew by €2,331 million to €46,270 million. The €430 million decline in intangible assets resulted especially from amortization and impairments as well as from the asset swap with Gazprom. Currency effects particularly contrasted this development.

The value of property, plant and equipment grew by €1,764 million to €25,260 million. At €5,742 million, additions considerably exceeded depreciation of €3,600 million. Investments amounted to €5,651 million in 2015 and primarily concerned the construction of an integrated TDI complex in Ludwigshafen, Germany; an aroma ingredients plant in Kuantan, Malaysia; an acrylic acid and superabsorbent production complex in Camaçari, Brazil; and field development projects in Argentina, Norway and Russia. Currency effects additionally increased the value of property, plant and equipment. Disposals were mainly attributable to the asset swap with Gazprom.

Investments accounted for using the equity method increased by €1,191 million to €4,436 million. This rise was primarily attributable to the asset swap with Gazprom, where BASF acquired shares in blocks IV and V of the Achimov formation of the Urengoy natural gas and condensate field in western Siberia, and through which Wintershall Noordzee B.V. was reclassified to an investment accounted for using the equity method.

The value of other financial assets fell by €14 million to €526 million in 2015, while deferred tax assets declined from €2,193 million to €1,791 million.

Other noncurrent receivables and miscellaneous assets were up by €222 million to €1,720 million year-on-year. This was mainly due to the increase in the positive fair value of derivatives.

The value of current assets declined by €2,854 million to €24,566 million. In addition to the asset swap with Gazprom, this was largely attributable to the reduction of inventories as well as other receivables and miscellaneous assets.

At €2,241 million, cash and cash equivalents were €523 million above the level of December 31, 2014.

For more on the composition and development of individual asset items in the balance sheet, see the Notes to the Consolidated Financial Statements from page 189 onward

## Financial position

### Equity and liabilities

	December 31, 2015		December 31, 2014	
	million €	%	million €	%
Paid-in capital	4,317	6.1	4,319	6.1
Retained earnings	30,120	42.5	28,777	40.3
Other comprehensive income	(3,521)	(5.0)	(5,482)	(7.7)
Minority interests	629	0.9	581	0.8
<b>Equity</b>	<b>31,545</b>	<b>44.5</b>	<b>28,195</b>	<b>39.5</b>
Provisions for pensions and similar obligations	6,313	8.9	7,313	10.2
Other provisions	3,369	4.8	3,502	4.9
Deferred taxes	3,381	4.8	3,420	4.8
Financial indebtedness	11,123	15.7	11,839	16.6
Other liabilities	869	1.2	1,197	1.7
<b>Noncurrent liabilities</b>	<b>25,055</b>	<b>35.4</b>	<b>27,271</b>	<b>38.2</b>
Accounts payable, trade	4,020	5.7	4,861	6.8
Provisions	2,540	3.6	2,844	4.0
Tax liabilities	1,082	1.5	1,079	1.5
Financial indebtedness	4,074	5.7	3,545	5.0
Other liabilities	2,520	3.6	3,564	5.0
<b>Current liabilities</b>	<b>14,236</b>	<b>20.1</b>	<b>15,893</b>	<b>22.3</b>
<b>Total equity and liabilities</b>	<b>70,836</b>	<b>100.0</b>	<b>71,359</b>	<b>100.0</b>

### Equity and liabilities

- Equity ratio rises from 39.5% to 44.5%
- Net debt shrinks slightly

Equity grew by €3,350 million to €31,545 million compared with the previous year. Retained earnings increased by €1,343 million to €30,120 million. Other comprehensive income rose by €1,961 million to minus €3,521 million, primarily because of currency translation effects and the remeasurement of defined benefit plans. The equity ratio was 44.5% (2014: 39.5%).

Compared with the end of 2014, noncurrent liabilities declined by €2,216 million to €25,055 million. All line items contributed to this development. Provisions for pensions and similar obligations were reduced by €1 billion, predominantly as a result of the decline in the projected pension increase and higher discount rates. Long-term financial indebtedness fell by €716 million due to the reclassification into short-term financial indebtedness of three bonds due in 2016 with a nominal value totaling €900 million. Other liabilities declined by €328 million, other provisions by €133 million and deferred taxes by €39 million.

Current liabilities fell by €1,657 million to €14,236 million, predominantly due to the €841 million decline in trade accounts payable and a €1,044 million decline in other liabilities, both of which mainly resulted from the asset swap with Gazprom. In

addition, short-term provisions fell by €304 million. Short-term financial indebtedness rose by €529 million, largely on account of the €1,590 million year-on-year increase in outstanding U.S. dollar commercial paper as of December 31, 2015, as well as the previously mentioned reclassification of bonds. Contrasting this was the scheduled repayment of two bonds with a nominal value of €2 billion and CHF 200 million in 2015. Tax liabilities remained at the prior-year level.

Financial indebtedness decreased overall by €187 million to €15,197 million. The average maturity of our financial indebtedness was 5.2 years (2014: 5.7 years). Net debt fell by €710 million to €12,956 million.

For more on the composition and development of individual equity and liability items in the balance sheet, see the Notes to the Consolidated Financial Statements from page 198 onward

For more on the development of the balance sheet, see the Ten-Year Summary on page 236

#### Net debt (in million €)

	Dec. 31, 2015	Dec. 31, 2014
Cash and cash equivalents	2,241	1,718
Financial indebtedness	15,197	15,384
<b>Net debt</b>	<b>12,956</b>	<b>13,666</b>

## Financing policy and credit ratings

- Financing principles remain unchanged
- “A” ratings confirmed

Our financing policy is aimed at ensuring our solvency at all times, limiting the risks associated with financing and optimizing our cost of capital. We preferably meet our financing needs on international capital markets.

We strive to maintain at least a solid “A” rating, which allows us unrestricted access to money and capital markets. Our financing measures are aligned with our operative business planning as well as the company’s strategic direction and also ensure the financial flexibility to take advantage of strategic options.

### Maturities of financial indebtedness (in million €)

2016	4,074	
2017	1,625	
2018	1,865	
2019	2,099	
2020	303	
2021 and beyond	5,231	

BASF has good credit ratings, especially in comparison with competitors in the chemical industry. Rating agency Moody’s last confirmed their rating of “A1/P-1/outlook stable” on November 4, 2015. Standard & Poor’s adjusted the outlook of their “A+/A-1” rating to “negative” on April 10, 2015. This was primarily because of an increase in pension provisions as a result of lower capital market interest rates.

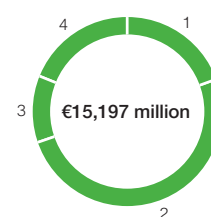
We have solid financing. Corporate bonds form the basis of our medium to long-term debt financing. These are issued in euros and other currencies with different maturities as part of our €20 billion debt issuance program. The goal is to create a balanced maturity profile and diverse range of investors, and to optimize our debt capital financing conditions.

For short-term financing, we use BASF SE’s U.S. dollar commercial paper program, which has an issuing volume of up to \$12.5 billion. On December 31, 2015, \$1,869 million worth of commercial paper was outstanding under this program. Firmly committed, syndicated credit lines of €6 billion serve to cover the repayment of outstanding commercial paper, and can also be used for general company purposes.

These credit lines were not used at any point in 2015. Our external financing is therefore largely independent of short-term fluctuations in the credit markets.

### Financing instruments (in million €)

1	Bank loans	2,996
2	Eurobonds	7,635
3	USD commercial paper	1,714
4	Other	2,852



Off-balance-sheet financing tools, such as leasing, are of minor importance to us. BASF Group’s most important financial contracts contain no side agreements with regard to specific financial ratios (financial covenants) or compliance with a specific rating (rating trigger).

For more on the financing tools used, see the Notes to the Consolidated Financial Statements from page 210 onward

To minimize risks and exploit internal optimization potential within the Group, we bundle the financing, financial investments and foreign currency hedging of BASF SE’s subsidiaries within the BASF Group where possible. Foreign currency risks are primarily hedged centrally by means of derivative financial instruments in the market.

Our interest risk management generally pursues the goal of reducing interest expenses for the Group and minimizing interest risks. Interest rate hedging transactions are therefore conducted with banks in order to turn selected capital market liabilities from fixed interest to variable rate or vice versa.

## Statement of cash flows

### ■ Cash provided by operating activities and free cash flow significantly exceed prior-year levels

At €9,446 million, **cash provided by operating activities** in 2015 was €2,488 million above the level of the previous year. This was largely attributable to a decrease in the amount of capital tied down in net working capital as a result of reduced inventories and other operating receivables. The line item “miscellaneous items” particularly contained the transfer of gains from the asset swap with Gazprom into cash used in investing activities. In the previous year, this item had primarily included the reclassification of gains from the disposal of our 50% share in Styrolution Holding GmbH.

**Cash used in investing activities** amounted to minus €5,235 million in 2015 compared with minus €4,496 million in 2014. Payments for property, plant and equipment and intangible assets were at €5,812 million, surpassing both the prior year's level (€5,296 million) and the level of depreciation and amortization (€4,448 million).

Acquisitions and divestitures in 2015 resulted in net payments received of €436 million (2014: €373 million).

Cash inflow of €141 million from financial investments and other items in 2015 was primarily attributable to the decrease in other financial receivables. In 2014, the disposal of financial assets, other financial receivables, and miscellaneous items had led to €427 million in payments received.

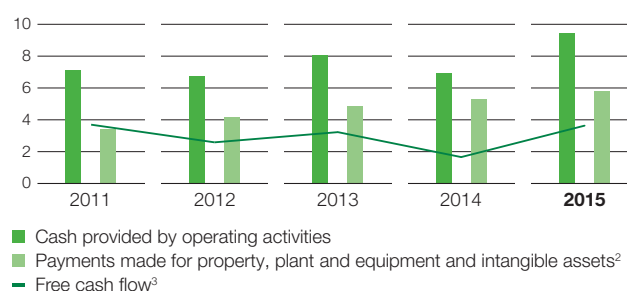
For more on investments and acquisitions, see page 39 onward

**Cash used in financing activities** amounted to minus €3,673 million in 2015, compared with minus €2,478 million in the previous year. The contribution from minority interests to a capital increase in one Group company was primarily responsible for cash inflow of €66 million in 2015. Cash outflow from the change in financial indebtedness amounted to €933 million. This was largely from the scheduled repayment of two bonds; the expansion of BASF SE's U.S. dollar commercial paper program had a countering effect. In 2015, dividends of €2,572 million were paid to shareholders of BASF SE and €234 million to minority interests.

In total, cash and cash equivalents increased by €523 million compared with the previous year, amounting to €2,241 million as of December 31, 2015.

**Free cash flow** rose by €1,972 million to €3,634 million in 2015 on account of higher cash provided by operating activities.

Cash flow<sup>1</sup> (in billion €)



<sup>1</sup> The figures for the 2011 business year were not restated according to the new accounting and reporting standards IFRS 10 and 11.

<sup>2</sup> Including investments to the extent that they already had an effect on cash

<sup>3</sup> Cash provided by operating activities less payments made for property, plant and equipment and intangible assets

### Statement of cash flows (in million €)

	2015	2014
Net income	3,987	5,155
Depreciation and amortization of intangible assets, property, plant and equipment, and financial assets	4,448	3,455
Changes in net working capital <sup>1</sup>	1,347	(623)
Miscellaneous items <sup>1</sup>	(336)	(1,029)
<b>Cash provided by operating activities</b>	<b>9,446</b>	<b>6,958</b>
Payments for property, plant and equipment and intangible assets	(5,812)	(5,296)
Acquisitions/divestitures	436	373
Financial investments and other items	141	427
<b>Cash used in investing activities</b>	<b>(5,235)</b>	<b>(4,496)</b>
Capital increases/repayments, share repurchases	66	–
Changes in financial liabilities	(933)	288
Dividends	(2,806)	(2,766)
<b>Cash used in financing activities</b>	<b>(3,673)</b>	<b>(2,478)</b>
Net changes in cash and cash equivalents	538	(16)
Cash and cash equivalents at the beginning of the year and other changes	1,703	1,734
<b>Cash and cash equivalents at the end of the year</b>	<b>2,241</b>	<b>1,718</b>

<sup>1</sup> The figures for the 2014 business year were restated. For more information, see the Notes to the Consolidated Financial Statements on page 162.

## Business review by segment

### Segment overview (in million €)

	Sales		Income from operations before depreciation and amortization (EBITDA)		Income from operations (EBIT) before special items	
	2015	2014	2015	2014	2015	2014
Chemicals	14,670	16,968	3,090	3,212	2,156	2,367
Performance Products	15,648	15,433	2,289	2,232	1,366	1,455
Functional Materials & Solutions	18,523	17,725	2,228	1,678	1,649	1,197
Agricultural Solutions	5,820	5,446	1,321	1,297	1,090	1,109
Oil & Gas	12,998	15,145	2,587	2,626	1,366	1,795
Other <sup>1</sup>	2,790	3,609	(866)	(2)	(888)	(566)
	<b>70,449</b>	<b>74,326</b>	<b>10,649</b>	<b>11,043</b>	<b>6,739</b>	<b>7,357</b>

### Segment overview (in million €)

	Income from operations (EBIT)		Assets		Investments <sup>2</sup>	
	2015	2014	2015	2014	2015	2014
Chemicals	2,131	2,396	12,823	12,498	1,859	2,085
Performance Products	1,340	1,417	14,232	14,502	964	849
Functional Materials & Solutions	1,607	1,150	13,341	12,987	854	650
Agricultural Solutions	1,083	1,108	8,435	7,857	402	391
Oil & Gas	1,072	1,688	12,373	13,686	1,823	3,162
Other <sup>1</sup>	(985)	(133)	9,632	9,829	111	148
	<b>6,248</b>	<b>7,626</b>	<b>70,836</b>	<b>71,359</b>	<b>6,013</b>	<b>7,285</b>

<sup>1</sup> Information on the composition of Other can be found in the Notes to the Consolidated Financial Statements from page 179 onward.

<sup>2</sup> Additions to property, plant and equipment (thereof from acquisitions: €91 million in 2015 and €1,001 million in 2014) and intangible assets (thereof from acquisitions: €136 million in 2015 and €732 million in 2014).

### Contributions to total sales by segment

Chemicals	21%	
Performance Products	22%	
Functional Materials & Solutions	26%	
Agricultural Solutions	8%	
Oil & Gas	19%	
Other	4%	

### Contributions to EBITDA by segment

Chemicals	29%	
Performance Products	22%	
Functional Materials & Solutions	21%	
Agricultural Solutions	12%	
Oil & Gas	24%	
Other	(8%)	



Sales<sup>1,2</sup> (in million €)

	1st quarter		2nd quarter		3rd quarter		4th quarter	
	2015	2014	2015	2014	2015	2014	2015	2014
Chemicals	3,866	4,398	3,975	4,298	3,640	4,201	3,189	4,071
Performance Products	4,038	3,872	4,084	3,924	3,899	3,919	3,627	3,718
Functional Materials & Solutions	4,584	4,236	4,916	4,518	4,517	4,527	4,506	4,444
Agricultural Solutions	1,898	1,653	1,678	1,666	1,077	1,018	1,167	1,109
Oil & Gas	4,993	4,276	3,668	3,194	3,606	3,670	731	4,005
Other <sup>3</sup>	688	1,077	757	855	685	977	660	700
	<b>20,067</b>	<b>19,512</b>	<b>19,078</b>	<b>18,455</b>	<b>17,424</b>	<b>18,312</b>	<b>13,880</b>	<b>18,047</b>







Income from operations (EBIT) before special items<sup>1,2</sup> (in million €)

	1st quarter		2nd quarter		3rd quarter		4th quarter	
	2015	2014	2015	2014	2015	2014	2015	2014
Chemicals	726	601	548	570	633	616	249	580
Performance Products	515	427	304	435	319	376	228	217
Functional Materials & Solutions	431	311	458	356	371	310	389	220
Agricultural Solutions	574	510	365	433	7	43	144	123
Oil & Gas	437	466	431	546	371	436	127	347
Other <sup>3</sup>	(613)	(203)	(63)	(328)	(98)	(7)	(114)	(28)
	<b>2,070</b>	<b>2,112</b>	<b>2,043</b>	<b>2,012</b>	<b>1,603</b>	<b>1,774</b>	<b>1,023</b>	<b>1,459</b>









Income from operations (EBIT)<sup>1,2</sup> (in million €)

	1st quarter		2nd quarter		3rd quarter		4th quarter	
	2015	2014	2015	2014	2015	2014	2015	2014
Chemicals	726	600	548	536	631	615	226	645
Performance Products	491	414	368	454	315	366	166	183
Functional Materials & Solutions	464	311	411	351	366	311	366	177
Agricultural Solutions	573	510	365	433	6	43	139	122
Oil & Gas	436	597	430	499	643	434	(437)	158
Other <sup>3</sup>	(695)	(211)	(83)	(340)	(72)	(27)	(135)	445
	<b>1,995</b>	<b>2,221</b>	<b>2,039</b>	<b>1,933</b>	<b>1,889</b>	<b>1,742</b>	<b>325</b>	<b>1,730</b>

EBIT before special items by segment  
(in million €)

Chemicals	2,156	
Performance Products	1,366	
Functional Materials & Solutions	1,649	
Agricultural Solutions	1,090	
Oil & Gas	1,366	
Other <sup>3</sup>	(888)	

EBIT before special items BASF Group by quarter<sup>1,2</sup>  
(in million €)

1st quarter 2015	2,070	
2014	2,112	
2nd quarter 2015	2,043	
2014	2,012	
3rd quarter 2015	1,603	
2014	1,774	
4th quarter 2015	1,023	
2014	1,459	

<sup>1</sup> Quarterly results not audited.

<sup>2</sup> The figures for the first three quarters of 2014 were adjusted after the dissolution of the natural gas trading business disposal group at the end of 2014. For more information, see the "Restated Figures 2013 and 2014" flyer available at [basf.com/publications](http://basf.com/publications).

<sup>3</sup> Information on the composition of Other can be found in the Notes to the Consolidated Financial Statements from page 179 onward.

# Chemicals

The Chemicals segment consists of the Petrochemicals, Monomers and Intermediates divisions. In our integrated production facilities – our Verbund – we produce a broad range of basic chemicals and intermediates in Europe, Asia, North America and South America for our external and internal customers.

## Divisions

### Petrochemicals

Broad range of basic products and specialties for sectors such as the chemical and plastics industries

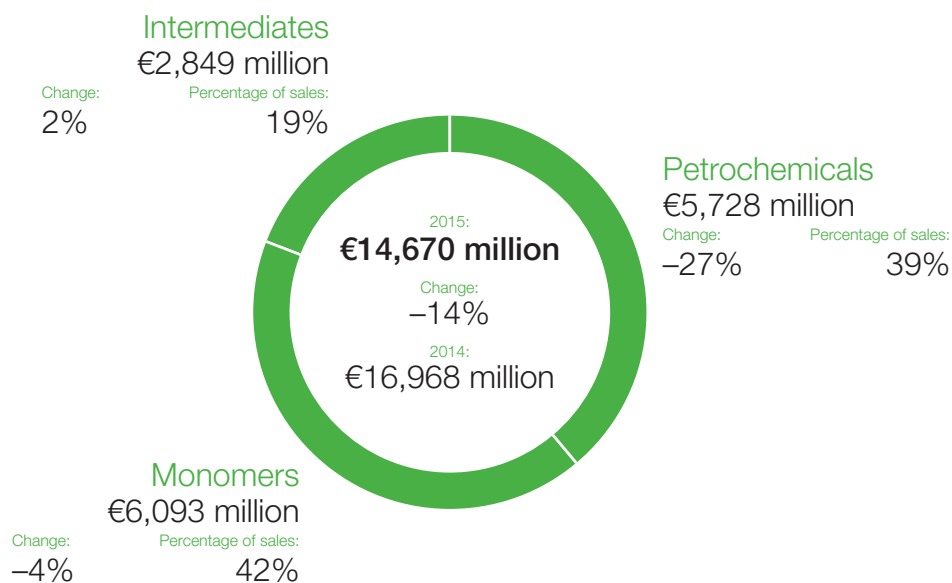
### Monomers

Isocyanates and polyamides as well as inorganic basic products and specialties for various branches, such as the plastics, automotive, construction and electronics industries

### Intermediates

Most comprehensive intermediates portfolio in the world, including precursors for coatings, plastics, textile fibers and crop protection products

## Sales



### Factors influencing sales

Factor	Change (%)	Impact
Volumes	(2%)	Decrease
Prices	(17%)	Decrease
Portfolio	(2%)	Decrease
Currencies	7%	Increase
<b>Sales</b>	<b>(14%)</b>	<b>Decrease</b>

### Income from operations before special items (in million €)

Year	Income (€ million)
2015	2,156
2014	2,367

Change: minus €211 million

## How we create value – an example

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### Sulfuric acid for the electronics industry

Ultrapure cleaning chemical for microchip production

#### Value for BASF

Expected annual sales  
growth for this application  
through 2025

8%

As a cleaning chemical, sulfuric acid plays a critical role in the electronics industry when it comes to producing microchips. The product's increased purity reduces deposits to the point that very fine structures can be created. Our sulfuric acid provides a level of purity 20 times higher than existing standards. We expect annual sales growth in this application of 8% through 2025.

#### Value for our customers

Greater speed in  
computer chips

7-fold

Semiconductor manufacturing companies are constantly competing to develop even higher-performance computer chips for electronic devices. BASF's sulfuric acid is so ultrapure that, for the first time, our customers can produce surface patterns on a 10-nanometer scale – that is, 10,000 times thinner than a human hair. This allows for chips that are 7 times faster and 2.5 times more energy efficient than today's usual 22-nanometer scale.

## Strategy

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- **Integrated production facilities form core of Verbund**
- **Technology and cost leadership provide most important competitive edge**

With our production facilities, we form the core of the Verbund structure and supply BASF's segments with basic chemicals for the production of downstream products. We add value with innovations in processes and production, and invest in future markets to ensure the growth of the entire BASF Verbund. As a reliable supplier, we market our products to customers in downstream industries. We continually improve our value chains and are expanding our market position – particularly outside Europe – with new processes and technologies, as well as through investments and collaborations in future markets.

We invest in research and development in order to develop new technologies and to make our existing technologies even more efficient. Cost leadership and a clear orientation along individual value chains are among our most important competitive advantages. We concentrate on the critical success factors of the classical chemicals business: making use of economies of scale, the advantages of our Verbund, high capacity utilization, continuous optimization of access to raw materials, lean processes, and reliable, cost-effective logistics. Furthermore, we are constantly improving our global production structures and aligning these with regional market requirements.

## Products, customers and applications

Division	Products	Customer industries and applications
Petrochemicals	Basic products: ethylene, propylene, butadiene, benzene, alcohols, solvents, plasticizers, alkylene oxides, glycols and acrylic monomers  Specialties: special plasticizers such as Hexamol® DINCH®, special acrylates	Use in BASF Verbund  Chemical and plastics industry; detergent, automotive, packaging and textile industries; production of paints, coatings, and cosmetics as well as oilfield, construction and paper chemicals
Monomers	Basic products: isocyanates (MDI, TDI), ammonia, caprolactam, adipic acid, chlorine, urea, glues and impregnating resins, caustic soda, polyamides 6 and 6.6, standard alcoholates, sulfuric and nitric acid  Specialties: electronic chemicals, metal systems	Use in BASF Verbund  Industries such as plastics, electronics, lumber, furniture, packaging, textile, construction, and automotive
Intermediates	Basic products: butanediol and derivatives, alkylamines and alkanolamines, neopentyl glycol, formic and propionic acid  Specialties: specialty amines such as tert-Butylamine, gas scrubbing chemicals, vinyl monomers, acid chlorides, chloroformates, chiral intermediates	Use in BASF Verbund  Plastics, coatings and pharmaceutical industries, production of detergents and cleaners as well as crop protection products and textile fibers

Production capacities for important products<sup>1</sup>

Product	Sites				Annual capacity (metric tons)
	Europe	North America	Asia Pacific	South America, Africa, Middle East	
Acrylic acid	■	■	■	■	1,510,000
Alkylamines	■	■	■		250,000
Formic acid	■	■	■		305,000
Ammonia	■				1,525,000
Benzene	■	■	■		910,000
Butadiene	■	■	■		680,000
Butanediol equivalents	■	■	■		550,000
Chlorine	■				385,000
Ethanolamines and derivatives	■		■		430,000
Ethylene	■	■	■		3,480,000
Ethylene oxide	■	■	■		1,445,000
Urea	■				545,000
Isocyanates	■	■	■		1,900,000
Caustic soda	■				360,000
Neopentyl glycol	■	■	■		205,000
Oxo-C4 alcohols (calculated as butyraldehyde)	■	■	■		1,495,000
Polyamide 6 and 6.6	■	■	■		820,000
Polyamide precursors	■	■			1,070,000
PolyTHF®	■	■	■		300,000
Propionic acid	■		■		150,000
Propylene	■	■	■		2,610,000
Propylene oxide	■				675,000
Sulfuric acid	■				920,000
Plasticizers	■	■	■		760,000

<sup>1</sup> All capacities are included at 100%, including plants belonging to joint operations and joint ventures.

### Capital expenditures

Location	Project	Additional annual capacity through expansion (metric tons)	Total annual capacity (metric tons)	Startup
Camaçari, Brazil	Construction: acrylic acid complex		160,000	2015
Caojing, China	Expansion: MDI plant <sup>1</sup>	240,000	480,000	2017
Chongqing, China	Construction: MDI plant		400,000	2015
Freeport, Texas	Construction: ammonia plant <sup>2</sup>		750,000	2017
Geismar, Louisiana	Construction: formic acid plant		50,000	2015
	Expansion: butanediol plant	n/a	n/a	2016
Korla, China	Construction: butanediol plant <sup>3</sup>		100,000	2016
	Construction: PolyTHF <sup>®</sup> plant		50,000	2016
Kuantan, Malaysia	Construction: 2-ethylhexanoic acid plant		30,000	2016
Ludwigshafen, Germany	Construction: TDI complex		300,000	2015
	Replacement: nitric acid plants	n/a		2015
	Expansion: specialty amines plant	12,000	n/a	2015
Maoming, China	Construction: isononanol plant <sup>4</sup>		180,000	2015
Nanjing, China	Construction: neopentyl glycol plant <sup>4</sup>		40,000	2015
	Construction: specialty amines plant		n/a	2015
	Expansion: tert-Butylamine plant	6,000	16,000	2015
Shanghai, China	Construction: Ultramid <sup>®</sup> plant		100,000	2015

<sup>1</sup> Operated by an associated company with BASF Huntsman Shanghai Isocyanate Investment B.V., Shanghai Hua Yi (Group) Company, Shanghai ChlorAlkali Chemical Co. Ltd. and Sinopec Shanghai Gaoqiao Company

<sup>2</sup> Operated by an associated company with Yara Freeport LLC

<sup>3</sup> Operated by an associated company with Xinjiang Markor Chemical Industry Co. Ltd.

<sup>4</sup> Each operated through joint venture with Sinopec



**Segment data** (in million €)

	2015	2014	Change in %
Sales to third parties	14,670	16,968	(14)
Thereof Petrochemicals	5,728	7,832	(27)
Monomers	6,093	6,337	(4)
Intermediates	2,849	2,799	2
Intersegmental transfers	5,300	6,135	(14)
Sales including intersegmental transfers	19,970	23,103	(14)
Income from operations before depreciation and amortization (EBITDA)	3,090	3,212	(4)
EBITDA margin %	21.1	18.9	–
Income from operations (EBIT) before special items	2,156	2,367	(9)
Income from operations (EBIT)	2,131	2,396	(11)
Income from operations (EBIT) after cost of capital	692	1,095	(37)
Assets	12,823	12,498	3
Research expenses	207	185	12
Additions to property, plant and equipment and intangible assets	1,859	2,085	(11)

**Chemicals**

Sales to third parties declined by €2,298 million to €14,670 million in the Chemicals segment in 2015. This was essentially due to lower prices on account of decreased raw material costs, especially in the Petrochemicals division (volumes –2%, prices –17%, portfolio –2%, currencies 7%). Sales were also reduced by the disposal of our share in the Singapore-based Ellba Eastern Private Ltd. joint operation. Income from operations before special items fell by €211 million to €2,156 million. This was primarily attributable to the declining TDI margins in the Monomers division as well as rising fixed costs from the startup of new production plants. Income from operations decreased by €265 million to €2,131 million. Special items had no material effect on earnings in 2015.

For 2016, we expect a slight decrease in sales. Higher sales volumes in the Monomers and Intermediates divisions from the startup of production plants will not be able to offset lower prices resulting from reduced raw material costs. We continue to anticipate intense competitive pressure, especially in the markets for MDI, TDI, acrylic acid and caprolactam. Income from operations before special items is likely to decline considerably. We expect higher fixed costs in the Monomers and Intermediates divisions due to plant startups and foresee margin declines, especially in the Petrochemicals division.

**Petrochemicals**

- Sales down by €2,104 million to €5,728 million due to price declines
- Earnings slightly below prior-year level due to higher fixed costs, with improved margins

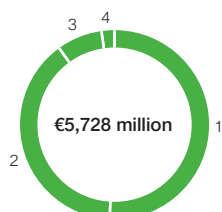
Sales to third parties decreased in the Petrochemicals division by €2,104 million to €5,728 million in 2015, mostly because of a sharp drop in sales prices (volumes –4%, prices –25%, portfolio –4%, currencies 6%). This development was largely the result of the sharp decrease in raw material prices since the fourth quarter of 2014, especially for naphtha. Sales were furthermore diminished by the consequences of a production outage at the Ellba C.V. joint operation at the Moerdijk, Netherlands, site since June 2014 as well as the divestiture of our shares in the Singapore-based Ellba Eastern Private Ltd. joint operation at the end of 2014. In North America, higher prices for condensate led to reduced capacity utilization of the condensate splitter and therefore to lower sales volumes. Currency effects, however, were overall positive.

For steam cracker products as well as ethylene oxide and glycols, we saw good margin development in the first half of 2015 in both Europe and North America as a result of market scarcity. As the second half of the year progressed, margins weakened perceptibly as product availability on the market increased. In the industrial petrochemicals business, margins improved for solvents and plasticizers in Europe, and for solvents and acrylic monomers in North America. The startup of new plants led to higher fixed costs overall. As a result, income from operations before special items remained slightly below the high level of 2014, despite improved margins overall.

Our new acrylic acid complex in Camaçari, Brazil, began operations in the second quarter of 2015 with an annual capacity of 160,000 metric tons. In October, we started up an isononanol plant in a joint venture with Sinopec in Maoming, China, with a capacity of 180,000 metric tons a year.

**Petrochemicals – Sales by region**  
(Location of customer)

1	Europe	51%
2	North America	39%
3	Asia Pacific	8%
4	South America, Africa, Middle East	2%



**Monomers**

- Sales decrease by €244 million to €6,093 million due mainly to lower prices
- Significant earnings decline due to competitive pressure in TDI business as well as startup costs for new plants

In 2015, sales to third parties in the Monomers division were down by €244 million to €6,093 million (volumes –1%, prices –10%, portfolio –1%, currencies 8%). This was predominantly a result of lower sales prices for polyamides and isocyanates due to lower raw material costs. The appreciation of currencies, especially the U.S. dollar, relative to the euro had a positive effect on sales.

Volumes growth for MDI and the polyamide-6 extrusion polymers was not fully able to offset the decline in the TDI business; sales volumes fell slightly as a result.

Income from operations before special items declined considerably, largely influenced by lower margins for TDI. This came especially from slower growth in China and intense competitive pressure through newly expanded capacities on the market. Earnings were additionally weighed down by startup costs for new production plants.

In China, we began operations at the MDI complex in Chongqing and a polyamide-6 extrusion plant in Shanghai in 2015. The TDI production complex in Ludwigshafen, Germany, gradually began operations starting November 2015.

**Monomers – Sales by region**  
(Location of customer)

1	Europe	42%
2	North America	23%
3	Asia Pacific	29%
4	South America, Africa, Middle East	6%



**Intermediates**

- Sales up by €50 million to €2,849 million, driven by currency effects and higher volumes
- Earnings slightly above prior-year level, due in part to improved margins

Sales to third parties in the Intermediates division rose by €50 million to €2,849 million year-on-year due to positive currency effects and higher sales volumes. Prices were lower than in the previous year as a result of significantly reduced raw material prices (volumes 3%, prices –9%, portfolio –1%, currencies 9%).

Volumes growth was particularly observed in both the amines and polyalcohol businesses, as well as in specialties, primarily in North America and Asia. Competitive pressure from the startup of new capacities in the butanediol and derivatives business had a negative effect on sales.

Income from operations before special items rose slightly compared with the previous year, predominantly from volumes growth, an increased proportion of specialties in our product mix, and improved margins, especially for amines. This enabled us to more than compensate for overall higher fixed costs resulting from the greater number of scheduled plant turnarounds.

We concluded numerous investment projects in 2015, especially at BASF's Verbund sites: We started up a formic acid plant in Geismar, Louisiana, while new facilities began operations for special amines in Ludwigshafen, Germany, and in Nanjing, China. With our joint venture partner Sinopec, we completed the construction of a neopentyl glycol plant in Nanjing, China.

**Intermediates – Sales by region**  
(Location of customer)

1	Europe	42%
2	North America	19%
3	Asia Pacific	36%
4	South America, Africa, Middle East	3%



# Performance Products

The Performance Products segment consists of the Dispersions & Pigments, Care Chemicals, Nutrition & Health and Performance Chemicals divisions. Our solutions enhance the performance of industrial and consumer products worldwide. With our customized products, our customers can make their production processes more efficient and give their products improved application properties.

## Divisions

### Dispersions & Pigments

Raw materials for the formulation of varnishes, coatings, printing and packaging inks, adhesives and construction materials

### Care Chemicals

Ingredients for hygiene, personal care, home care and industrial & institutional cleaning businesses as well as for applications in the chemical industry

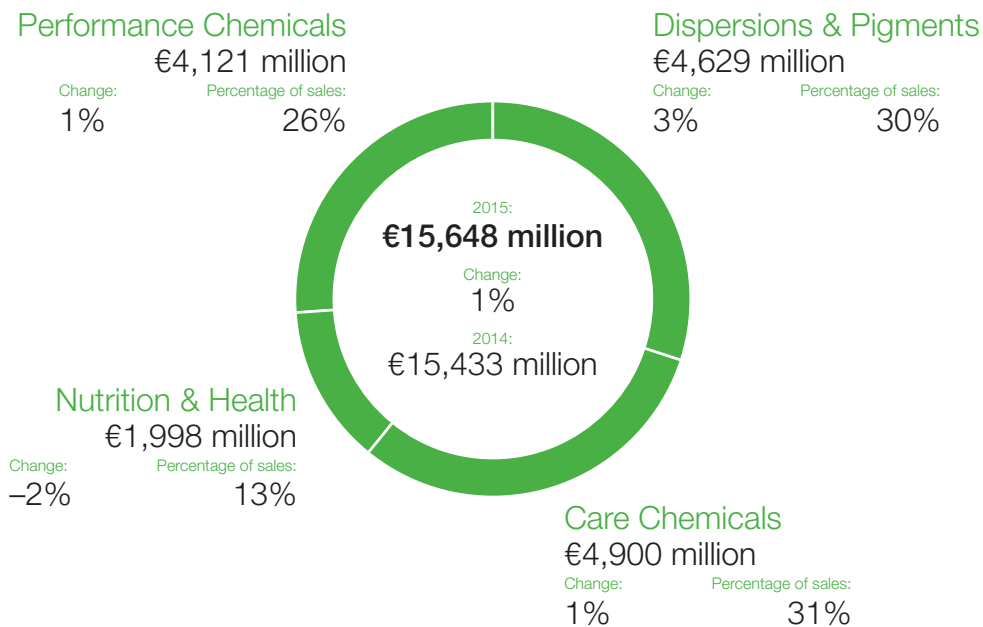
### Nutrition & Health

Products for the food and feed industries, the flavor and fragrance industry and the pharmaceutical industry

### Performance Chemicals

Customized products for many sectors, from mining and the fuel industry to plastics processing

## Sales



### Factors influencing sales

Factor	Change (%)
Volumes	(1%)
Prices	(4%)
Portfolio	(1%)
Currencies	7%
<b>Sales</b>	<b>1%</b>

### Income from operations before special items (in million €)

Year	Income (€ million)
2015	1,366
2014	1,455

Change: minus €89 million

## How we create value – an example

### Natuphos® E

New generation of phytase enzymes with environmental and economical impact in animal nutrition

#### Value for BASF

Expected average annual sales growth per year through 2018

>5%

#### Value for our customers and the environment

Average annual savings per production site

€1 million

In today's animal nutrition, the enzyme phytase helps non-ruminants such as pigs and poultry to ingest and absorb phosphorus, an essential mineral in feed plants. BASF's new phytase, Natuphos® E, can release far more phosphorus for the animals from the plant than previous generations of the enzyme. With an average annual sales growth of more than 5% expected through 2018, Natuphos® E is a growth driver for BASF's animal nutrition business.

Natuphos® E allows our customers to use fewer inorganic sources of phosphate in their feed production. Each production site<sup>1</sup> can therefore save an average of €1 million per year. Phytase-enriched feed also reduces the amount of phosphate excreted by pigs and poultry by 30%, which in turn benefits the environment. Through its elevated efficiency, Natuphos® E exceeds this figure by a third, significantly reducing phosphate pollution in soil and water.

## Strategy

- Tailor-made products that improve our customers' applications and processes
- Global presence ensures reliable supply to customers in all regions
- New structure for pigments business

We take on the challenges arising from important future issues, especially population growth: scarce resources, environmental and climatic stressors, greater demand for food and the desire for better quality of life. In doing so, we focus on research and development and maintain close relationships to leading companies in our key customer industries. We position ourselves globally in order to reliably supply customers in all regions. We invest in the development of innovations that enable our products and processes – as well as our customers' applications and processes – to make a contribution to sustainability: for example, enabling the more efficient use of resources.

Industry-specific specialties make up a major part of our product range. These products create additional value for our customers, which allows them to stand out from the competition. We develop new solutions together with our customers

and strive for long-term partnerships, which create profitable growth opportunities for both sides.

We pursue a different business model for standard products, such as vitamins or dispersions for paper coatings. Here, efficient production setups, backward integration in our Production Verbund's value chains, capacity management, and technology and cost leadership are all essential.

We support our customers by serving as a reliable supplier with consistent product quality, a good value for money and lean processes.

In January 2016, we combined our pigments activities into a new global business unit (GBU) based in Ludwigshafen, Germany. The plan is to transfer this business into separate legal entities. All employees in the pigments business are part of the new GBU. This reorganization allows for better adaptation to the challenges facing the pigment industry. 🌍

<sup>1</sup> Assumption: annual feed production of 200,000 to 250,000 metric tons

**Products, customers and applications**

Division	Products	Customer industries and applications
Dispersions & Pigments	Polymer dispersions, pigments, resins, high-performance additives, formulation additives	Printing and packaging industry, adhesives industry, plastics processing industry, products for construction chemicals, raw materials for paints and coatings, paper industry, specialties for the electronics and other industries
Care Chemicals	<p>Ingredients for skin and hair cleansing and care products, such as emollients, cosmetic active ingredients, polymers and UV filters</p> <p>Ingredients for detergents and cleaners in household, institution or industry, such as surfactants, chelating agents, polymers, biocides and products for optical effects</p> <p>Solvents for crop protection product formulations and products for metal surface treatments</p> <p>Superabsorbents for baby diapers, adult incontinence products and feminine hygiene articles</p>	Cosmetics industry, hygiene industry, detergents and cleaners industry, agricultural industry and technical applications
Nutrition & Health	<p>Additives for the food and feed industries, such as vitamins, carotenoids, sterols, enzymes, emulsifiers and omega-3 fatty acids</p> <p>Flavors and fragrances, such as geraniol, citronellol, L-menthol and linalool</p> <p>Excipients for the pharmaceutical industry and selected, high-volume active ingredients, such as ibuprofen and omega-3 fatty acids</p>	Food and feed industries, flavor and fragrance industry and pharmaceutical industry
Performance Chemicals	<p>Antioxidants, light stabilizers, pigments and flame retardants for plastic applications</p> <p>Fuel and refinery additives, polyisobutene, brake fluids and engine coolants, lubricant additives and basestocks, components for metalworking fluids and compounded lubricants</p> <p>Process chemicals for the extraction of oil, gas, metals and minerals, chemicals for enhanced oil recovery, water treatment chemicals, membrane technologies</p> <p>Auxiliaries for the production and treatment of leather and textiles</p> <p>Functional and process chemicals for the production of paper and cardboard, kaolin minerals</p>	Plastics processing industry, automotive industry, fuel and lubricant industry, oil and gas industry, mining industry, municipal and industrial water treatment, leather industry as well as paper industry and packaging made of paper

**Production capacities of significant products<sup>1</sup>**

Product	Sites				Annual capacity (metric tons)
	Europe	North America	Asia Pacific	South America, Africa, Middle East	
Anionic surfactants	■	■	■	■	600,000
Citral	■				40,000
Chelating agents	■	■		■	>120,000
Methane sulfonic acid	■				30,000
Nonionic surfactants	■	■	■		630,000
Organic pigments	■	■	■	■	n/a
Polyisobutene	■		■		215,000
Superabsorbents	■	■	■	■	590,000

<sup>1</sup> All capacities are included at 100%, including plants belonging to joint operations and joint ventures.



**Capital expenditures**

Location	Project	Startup
Antwerp, Belgium	Modification for new superabsorbent technology platform	2016
Besigheim, Germany	Expansion: bismuth vanadate pigments	2017
Camaçari, Brazil	Construction: superabsorbents	2015
Cork, Ireland	Expansion: process chemicals for mining industry (LIX®)	2015
Kuantan, Malaysia	Construction: aroma chemicals	2016
Ludwigshafen, Germany	Construction: polyisobutene	2017
	Expansion: lubricants	2016
	Expansion: resins	2016
	Expansion: Pallocrom® pigments	2016
	Expansion: vinyl formamide	2017
Pasir Gudang, Malaysia	Expansion: polyvinylpyrrolidone	2017
	Construction: dispersions	2015
Shanghai, China	Modification: polyvinylpyrrolidone	2016
Theodore, Alabama	Construction: chelating agents	2015

**Segment data** (in million €)

	2015	2014	Change in %
Sales to third parties	15,648	15,433	1
Thereof Dispersions & Pigments <sup>1</sup>	4,629	4,501	3
Care Chemicals	4,900	4,835	1
Nutrition & Health	1,998	2,029	(2)
Performance Chemicals <sup>1</sup>	4,121	4,068	1
Intersegmental transfers	463	489	(5)
Sales including intersegmental transfers	16,111	15,922	1
Income from operations before depreciation and amortization (EBITDA)	2,289	2,232	3
EBITDA margin %	14.6	14.5	–
Income from operations (EBIT) before special items	1,366	1,455	(6)
Income from operations (EBIT)	1,340	1,417	(5)
Income from operations (EBIT) after cost of capital	(305)	(143)	.
Assets	14,232	14,502	(2)
Research expenses	383	369	4
Additions to property, plant and equipment and intangible assets	964	849	14

<sup>1</sup> Since the dissolution of the Paper Chemicals division on January 1, 2015, we have been continuing its business in the Dispersions & Pigments and Performance Chemicals divisions. The 2014 figures for both divisions have been adjusted accordingly to ensure better comparability.

## Performance Products

At €15,648 million, sales to third parties in the Performance Products segment in 2015 were €215 million above the level of the previous year. Positive currency effects in all divisions were able to more than compensate for lower sales prices and weaker volumes (volumes –1%, prices –4%, portfolio –1%, currencies 7%). Decreased volumes were mainly brought about by lower volumes of pigments and weak demand in the oilfield chemicals business in connection with the price of oil, as well as the unscheduled shutdown of a polyisobutene plant in Antwerp, Belgium. The market environment for paper chemicals remained difficult. Our prices were also negatively impacted by factors such as intense competition in the hygiene business and vitamin E, along with lower raw material costs.

Income from operations before special items declined by €89 million to €1,366 million owing to higher fixed costs. These resulted from negative currency effects and the startup of new plants – such as those in Camaçari, Brazil, and Freeport,

Texas – as well as inventory reductions. Income from operations fell by €77 million to €1,340 million. Special charges were predominantly attributable to restructuring measures. By contrast, special income arose mainly from the sale of our textile chemicals business, as well as parts of our pharmaceutical ingredients and services business.

In a market environment that continues to be challenging, we expect sales in 2016 to match the prior-year levels, despite lower prices. We want to increase sales volumes in all divisions. Factors supporting this endeavor include new production capacities in the Dispersions & Pigments and Care Chemicals divisions. Income from operations before special items should rise slightly above 2015 levels, bolstered by strict cost discipline and measures to increase competitiveness in all divisions.

## Dispersions & Pigments

- Sales rise by €128 million to €4,629 million, boosted mainly by positive currency effects
- Slight, margin-driven earnings improvement

Sales to third parties in the Dispersions & Pigments division in 2015 rose year-on-year by €128 million to €4,629 million, mainly as a result of currency developments. Prices and volumes fell slightly (volumes –1%, prices –4%, portfolio 1%, currencies 7%).

In the pigments business, an intense competitive environment led to a significant decline in volumes. Sales volumes in the paper chemicals business integrated into our division since 2015 decreased in step with the development of the relevant market. Volumes developed positively in the dispersions business – especially in North America, due to new capacities in Freeport, Texas – and grew slightly overall. The startup of new plants since the fourth quarter of 2014 led to considerable sales growth for resins in all regions. We were also able to raise sales of additives in all regions.

We slightly improved income from operations before special items compared with 2014 through higher margins. Fixed costs rose, especially because of new plant startups in Freeport, Texas, and Dahej, India. Special charges were above the level of the previous year, and were mostly related to restructuring measures.

In January 2016, we combined our pigments activities into a new global business unit (GBU) based in Ludwigshafen, Germany.

**Dispersions & Pigments – Sales by region**  
(Location of customer)

1	Europe	41%
2	North America	28%
3	Asia Pacific	24%
4	South America, Africa, Middle East	7%



## Care Chemicals

- Currency-driven sales increase of €65 million to €4,900 million compared with 2014
- Earnings considerably down due to rise in fixed costs

In the Care Chemicals division, sales to third parties rose by €65 million to reach €4,900 million in 2015. This was largely the result of positive currency effects, especially in connection with the U.S. dollar. Prices declined, predominantly as a consequence of the decrease in raw material costs but also as a result of competitive pressure, especially in the hygiene business. Sales volumes matched the level of the previous year (volumes 0%, prices –5%, portfolio 0%, currencies 6%).

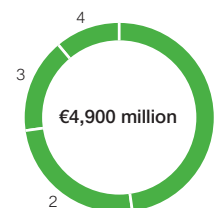
A raw material bottleneck in the production of a range of Care Chemicals products reduced sales volumes. In a market environment that continues to be challenging, we were able to compensate for this development through volumes increases in other business areas, especially in Asia. Oleochemical surfactants and fatty alcohols made the strongest contributions.

Income from operations before special items fell considerably due to higher fixed costs. Contributing factors included the startup of new plants as well as a lower level of capacity utilization than in the previous year, due in part to a reduction in inventories. Special charges were largely attributable to restructuring measures.

In the second quarter of 2015, we began operations at a superabsorbent production plant in Camaçari, Brazil. Moreover, we invested in the modification of a new superabsorbent technology platform in Antwerp, Belgium, and in new capacities for chelating agents in Theodore, Alabama.

**Care Chemicals – Sales by region**  
(Location of customer)

1	Europe	48%
2	North America	25%
3	Asia Pacific	16%
4	South America, Africa, Middle East	11%



## Nutrition & Health

- Sales decrease by €31 million to €1,998 million due mainly to lower prices
- Earnings considerably down due to margin pressure, plant shutdowns and divestitures

In the Nutrition & Health division, sales to third parties decreased by €31 million to €1,998 million despite positive currency effects (volumes 1%, prices -7%, portfolio -3%, currencies 7%). Intense competitive pressure, especially in the vitamin E business, along with decreased raw material costs in the aroma chemicals business, led to a decline in prices. Sales were furthermore reduced by the disposal of parts of our pharmaceutical ingredients and services business, which involved the custom synthesis business and parts of the active pharmaceutical ingredients portfolio.

Sales volumes were slightly up compared with 2014, thanks to a large extent to increased volumes in our businesses with human and animal nutrition as well as flavors and fragrances.

Income from operations before special items declined considerably. This was mainly because of margin pressure, in addition to effects from plant shutdowns and divestitures. We were able to stabilize fixed costs on the prior-year level by implementing further efficiency measures.

We carried out numerous measures to increase our competitiveness. Special charges arose from, for example, the closure of the sterol site in Pasadena, Texas, at the end of 2015. These charges were contrasted by special income from the disposal of parts of our pharmaceutical ingredients and services business.

**Nutrition & Health – Sales by region**  
(Location of customer)

1	Europe	44%
2	North America	21%
3	Asia Pacific	26%
4	South America, Africa, Middle East	9%



## Performance Chemicals

- Sales grow by €53 million to €4,121 million through positive currency effects
- Higher margins lead to significant earnings increase

In the Performance Chemicals division, sales to third parties rose by €53 million to €4,121 million compared with 2014. This was mainly the result of positive currency effects with lower volumes and prices (volumes -3%, prices -2%, portfolio -2%, currencies 8%).

In all regions except Europe, we achieved considerable sales growth, which was supported to a large extent by our business with plastic additives. Sales volumes were in total slightly below 2014 levels. This is mostly attributable to the unscheduled shutdown of a polyisobutene plant in Antwerp, Belgium, as well as the significant, oil-price-related decrease in demand for oilfield chemicals. We also posted a volumes decline in the portion of our paper chemicals business that has been allocated to the division since 2015. Our sales prices fell particularly as a result of a drop in raw material costs. In addition, sales were weighed down by the disposal of our textile chemicals business at the end of June 2015.

Income from operations before special items rose considerably compared with 2014. Higher margins in almost every business area were able to more than offset a currency-driven rise in fixed costs.

Special income arose from the sale of our textile chemicals business. Special charges came in part from measures to restructure our businesses with water, oilfield, mining, and paper chemicals.

**Performance Chemicals – Sales by region**  
(Location of customer)

1	Europe	37%
2	North America	27%
3	Asia Pacific	26%
4	South America, Africa, Middle East	10%



## Functional Materials & Solutions

The Functional Materials & Solutions segment comprises the Catalysts, Construction Chemicals, Coatings and Performance Materials divisions. They develop and market system solutions, services and innovative products for specific sectors and customers, particularly for the automotive, electronics, chemical and construction industries as well as for household applications, sports and leisure.

### Divisions

#### Catalysts

Automotive and process catalysts, battery materials, precious metal trading

#### Construction Chemicals

Solutions for building structure and envelopes, interior construction and infrastructure

#### Coatings

Coatings solutions for automotive and industrial applications, decorative paints

#### Performance Materials

Polyurethanes, thermoplastics, foams and epoxy resins

### Sales

#### Performance Materials

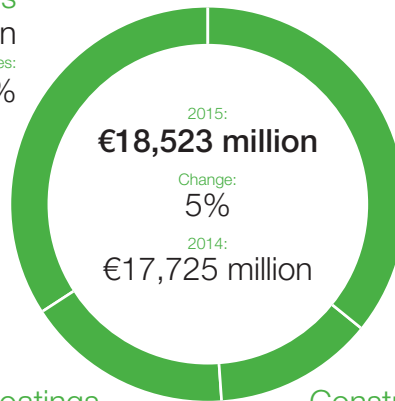
€6,747 million

Change: 3%  
Percentage of sales: 36%

#### Catalysts

€6,306 million

Change: 3%  
Percentage of sales: 34%



#### Coatings

€3,166 million

Change: 6%  
Percentage of sales: 17%

#### Construction Chemicals

€2,304 million

Change: 12%  
Percentage of sales: 13%

#### Factors influencing sales

Volumes	0%	
Prices	(4%)	
Portfolio	0%	
Currencies	9%	
<b>Sales</b>	<b>5%</b>	

#### Income from operations before special items (in million €)

2015	1,649	
2014	1,197	

Change:  
plus €452 million



## How we create value – an example

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### MasterSeal® 6100 FX

A new generation of cement-based waterproofing

#### Value for BASF

Expected sales growth  
through 2020

up to **30%**

Concrete structures that collect, store and transport water are designed to have a service life of more than 20 years. To keep maintenance costs at a minimum, specific protection from water damage is needed. MasterSeal® 6100 FX is a waterproofing membrane with unmatched performance on the market. With this product, we expect sales growth of up to 30% by 2020.

#### Value for our customers and the environment

Reduced material  
consumption

up to **50%**

MasterSeal® 6100 FX's high-yielding formulation requires up to 50% less material than typical applications to form a waterproofing membrane. For users, this reduces storage and transportation costs and allows for easier handling. Compared with other formulations, the product reduces greenhouse gas emissions by up to 70%. Its quick hardening time also minimizes construction and maintenance time for our customers.

## Strategy

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- **Development of innovative products and technologies in close collaboration with our customers**
- **Focus on specialties and system solutions that allow customers to stand out from the competition**

We use BASF's expertise as the world's leading chemical company to develop innovative products and technologies in close cooperation with our customers. Our aim is to find the best solution in terms of cost and functionality, helping our customers contribute to sustainable development. Our specialties and system solutions enable customers to stand out from the competition. 🌐

One focus of our strategy is the ongoing optimization of our product portfolio and structures according to different regional market requirements as well as trends in our customer industries. We are positioning ourselves to profitably grow faster than the market.

We aim to secure our leading market position in Europe, to profitably expand our position in the North American market and to selectively extend our activities in the growth regions of Asia, South America, Eastern Europe and the Middle East.

**Products, customers and applications**

Operating division	Products	Customer industries and applications
Catalysts	Automotive and process catalysts	Automotive and chemical industries, refineries, battery manufacturers
	Battery materials	Solutions for the protection of air quality as well as the production of fuels, chemicals, plastics and battery materials
	Precious and base metal services	Cement and concrete producers, construction companies, craftspeople, builders' merchants
Construction Chemicals	Concrete admixtures, cement additives, underground construction solutions, flooring systems, sealants, solutions for the protection and repair of concrete, high-performance mortars and grouts, tile-laying systems, exterior insulation and finishing systems, expansion joints, wood protection	Solutions for new building construction, maintenance, repair and refurbishment of commercial and residential buildings as well as infrastructure
	Coatings solutions for automotive and industrial applications	Automotive industry, body shops, steel industry, painting businesses and private consumers, wind power industry
Coatings	Decorative paints	Automotive manufacture, electrical engineering, packaging, games, sports and leisure, household, mechanical engineering, construction, medical technology, sanitation and water industry, solar thermal energy and photovoltaics, wind energy
Performance Materials	Engineering plastics, biodegradable plastics, standard foams, foam specialties, polyurethane, epoxy systems for fiber-reinforced composites	

**Capital expenditures**

Location	Project	Startup
Bangpoo, Thailand	Coatings technical competence center	2015
Caojing, China	Construction: chemical catalysts	2016
	Construction: automotive coatings	2017
	Construction: mobile emissions catalysts plant	2016
Chennai, India	Construction: polyurethane systems	2015
Geismar, Louisiana	Construction: concrete admixtures	2016
Kolkata, India	Construction: concrete admixtures	2015
Lagos, Nigeria	Slentite® pilot plant	2015
Lemförde, Germany	Expansion: coating resins	2015
Münster, Germany	Construction: mobile emissions catalysts plant	2017
Rayong, Thailand	Expansion: mobile emissions catalysts plant	2015
Shanghai, China	Construction: coating resins	2015
	Capacity expansion: Cellasto®	2016
	Capacity expansion: compounding plant for Ultramid® and Ultradur®	2017
Schwarzeide, Germany	Optimization: coating production	2016
Totsuka, Japan	Capacity expansion: dry mortars	2015
Trostberg, Germany	Capacity expansion: thermoplastic polyurethanes (TPU)	2015
Wyandotte, Michigan	Construction: compounding plant for Ultramid® and Ultradur®	2015
Yesan, South Korea		

**Segment data** (in million €)

	2015	2014	Change in %
Sales to third parties	18,523	17,725	5
Thereof Catalysts	6,306	6,135	3
Construction Chemicals	2,304	2,060	12
Coatings	3,166	2,984	6
Performance Materials	6,747	6,546	3
Intersegmental transfers	873	832	5
Sales including intersegmental transfers	19,396	18,557	5
Income from operations before depreciation and amortization (EBITDA)	2,228	1,678	33
EBITDA margin %	12.0	9.5	–
Income from operations (EBIT) before special items	1,649	1,197	38
Income from operations (EBIT)	1,607	1,150	40
Income from operations (EBIT) after cost of capital	96	(240)	.
Assets	13,341	12,987	3
Research expenses	392	379	3
Additions to property, plant and equipment and intangible assets	854	650	31

**Functional Materials & Solutions**

In the Functional Materials & Solutions segment, we increased sales to third parties by €798 million to €18,523 million as compared with the previous year. This development was essentially due to positive currency effects in all divisions. Prices dipped slightly overall, while volumes remained stable (volumes 0%, prices –4%, portfolio 0%, currencies 9%). Higher demand, especially from the automotive industry, was not able to offset lower sales volumes in precious metal trading. At €1,649 million, income from operations before special items exceeded 2014 levels by €452 million, primarily thanks to the sharp earnings increases in the Performance Materials and Construction Chemicals divisions. Despite higher special charges in the Catalysts division, income from operations for the segment grew by €457 million to €1,607 million.

For 2016, we expect continuing high demand from our key customer industries, automotive and construction, and are planning on volumes increases in all divisions. We do, however, anticipate negative effects from continuing declines in precious metal prices and predict overall that sales will match the prior-year level. We aim to slightly raise income from operations before special items.

**Catalysts**

- Sales rise by €171 million to €6,306 million, boosted mainly by positive currency effects
- Considerable earnings decline due in part to lower contribution from precious metal trading

In the Catalysts division, sales to third parties rose by €171 million to €6,306 million in 2015, mostly through highly positive currency effects from the U.S. dollar (volumes –2%, prices –8%, portfolio 1%, currencies 12%).

The decline in volumes and prices in the Catalysts division was largely attributable to lower volumes and prices in precious metal trading, reducing this business's contribution by €187 million to €2,388 million. Greater sales volumes of mobile emissions catalysts in Europe and Asia positively affected sales. We posted a decline in volumes of chemical and refinery catalysts, especially in Asia.

Income from operations before special items dropped considerably compared with the previous year, due in particular to lower contributions from precious metal trading and battery materials. The decline in precious metal trading was essentially the result of lower precious metal prices. In the battery materials business, fixed costs rose partly on account of increased investment in research and development. The gradual startup of plants in Środa Śląska, Poland,

and Ludwigshafen, Germany, for mobile emissions catalysts and chemical catalysts also contributed significantly to the rise in fixed costs. Special charges arose mainly through an impairment on intangible assets.

In February 2015, we acquired from TODA KOGYO CORP. a 66% share in a company that specializes in cathode materials for lithium-ion batteries in Japan, thus expanding our global battery materials network.

**Catalysts – Sales by region**  
(Location of customer)

1	Europe	38%
2	North America	33%
3	Asia Pacific	21%
4	South America, Africa, Middle East	8%



**Construction Chemicals**

- Currency and volumes-related sales growth of €244 million to €2,304 million
- Considerable rise in earnings as a result of volumes growth and positive currency effects

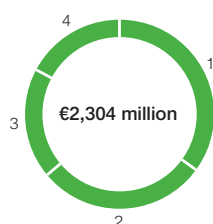
In the Construction Chemicals division, sales to third parties rose by €244 million year-on-year to €2,304 million. This was predominantly the result of positive currency effects in almost every region, as well as higher volumes (volumes 5%, prices -1%, portfolio 0%, currencies 8%).

In Europe, sales especially increased on account of greater demand. In North America, considerable year-on-year sales growth was mainly attributable to positive currency effects, in addition to slightly higher volumes and prices. Positive currency effects and a rise in volumes were largely responsible for considerably improved sales in the region South America, Africa, Middle East. Demand for our products grew particularly in the countries of the Middle East. Sales in Asia increased predominantly on account of positive currency effects, with volumes growing slightly and prices down.

Income from operations before special items considerably surpassed the level of 2014, especially because of higher volumes and positive currency effects.

**Construction Chemicals – Sales by region**  
(Location of customer)

1	Europe	35%
2	North America	29%
3	Asia Pacific	19%
4	South America, Africa, Middle East	17%



**Coatings**

- Sales improve by €182 million to €3,166 million, driven mostly by currencies
- Earnings rise slightly, mainly through contribution from automotive OEM coatings

In the Coatings division, sales to third parties grew by €182 million to €3,166 million in 2015, predominantly through positive currency effects. Portfolio effects, along with higher volumes and prices, also contributed to this sales increase (volumes 1%, prices 1%, portfolio 1%, currencies 3%). We raised prices in all business areas. Increased volumes especially in North America and Europe more than compensated for a volumes decline in South America.

Our sales of automotive OEM coatings saw considerable growth, driven both by currency effects and by higher volumes in Europe and North America. For automotive refinish coatings, we were able to more than offset weaker demand in South America and Asia through higher sales prices and positive currency effects. The rise in sales in the industrial coatings business was partly attributable to positive currency effects. Sales fell sharply in the decorative paints business in Brazil, despite increased sales prices. This was predominantly the result of negative currency effects as well as overall weak demand.

We were able to slightly raise income from operations before special items, mostly through the contribution from automotive OEM coatings.

In 2015, we began operations at our new coating resins plant in Shanghai, China, to support our growth in the region with innovative products from local production.

**Coatings – Sales by region**  
(Location of customer)

1	Europe	40%
2	North America	18%
3	Asia Pacific	23%
4	South America, Africa, Middle East	19%



## Performance Materials

- Sales up by €201 million to €6,747 million through positive currency effects
- Considerable earnings growth due to higher margins

We increased sales to third parties by €201 million to €6,747 million in the Performance Materials division in 2015 (volumes 0%, prices –4%, portfolio 0%, currencies 7%). This was largely the result of positive currency effects in North America and Asia. While volumes shrank in South America and Asia, we achieved higher volumes in Europe and North America. Sales prices fell as a consequence of lower raw material prices.

We considerably increased sales to the automotive industry thanks to significantly higher demand in Europe, Asia and North America. With currency effects positive overall, we were able to raise sales volumes, particularly in the businesses with engineering plastics, polyurethane (PU) systems, and the special elastomer Cellasto®.

Our business with the consumer goods industry also developed well, despite lower volumes in Asia and South America. This was essentially thanks to volumes growth for polyurethane systems in Europe and North America as well as for thermoplastic polyurethanes (TPU) and biopolymers.

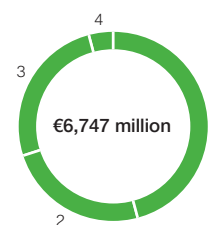
Sales to the construction industry declined, however, due primarily to the divestiture of our white expandable polystyrene (EPS) business in North and South America. Volumes rose in the polyurethane systems business despite a decrease in Asia.

We achieved considerably higher income from operations before special items. This was predominantly because of higher margins resulting from lower raw material prices as well as the positive development of our high-margin specialties businesses.

In 2015, we expanded our specialties business, especially Cellasto®, through investments at the site in Shanghai, China. Moreover, we started operations at a new compounding plant for Ultramid® and Ultradur® at the site in Yesan, South Korea, and at a new polyurethane system house in Geismar, Louisiana. With the acquisition of Taiwan Sheen Soon Co. Ltd. completed in 2015, we have expanded our portfolio of thermoplastic polyurethanes.

### Performance Materials – Sales by region (Location of customer)

1	Europe	46%
2	North America	24%
3	Asia Pacific	26%
4	South America, Africa, Middle East	4%



## Agricultural Solutions

The Agricultural Solutions segment consists of the Crop Protection division. We develop and produce innovative solutions for the improvement of crop health and yields, and market them worldwide. The Plant Science competence center conducts research in the field of plant biotechnology. The activities of Plant Science are reported in “Other.”

### Indications and sectors

#### Fungicides

Protecting crops against harmful fungi

#### Herbicides

Reducing competition from weeds for water and nutrients

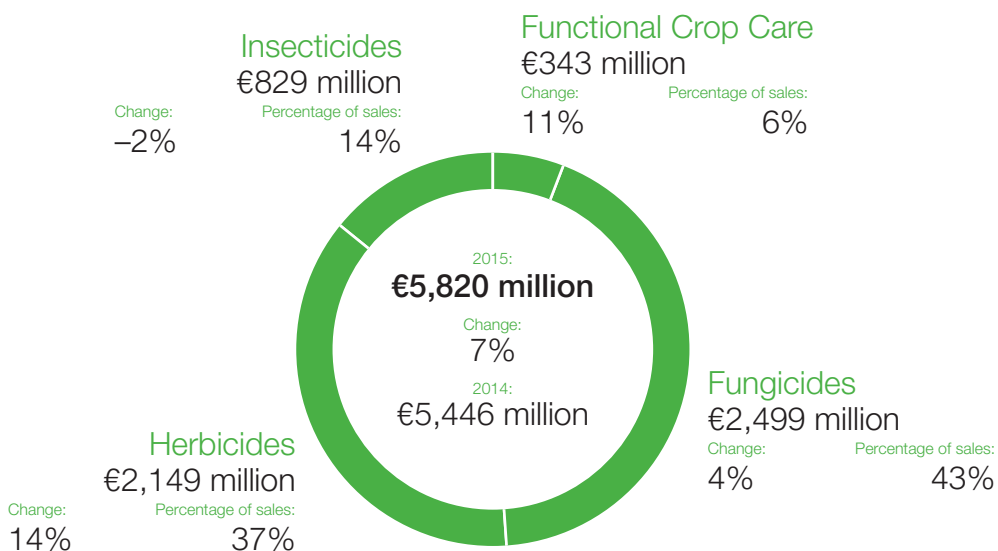
#### Insecticides

Combating insect pests in agriculture and beyond

#### Functional Crop Care

Biological crop protection, seed treatment, polymers and colorants

### Sales



#### Factors influencing sales

Volumes	1%	<div style="width: 10px; height: 10px; background-color: #4CAF50;"></div>
Prices	5%	<div style="width: 50px; height: 10px; background-color: #4CAF50;"></div>
Portfolio	0%	<div style="width: 0px; height: 10px; background-color: #4CAF50;"></div>
Currencies	1%	<div style="width: 10px; height: 10px; background-color: #4CAF50;"></div>
<b>Sales</b>	<b>7%</b>	<div style="width: 70px; height: 10px; background-color: #4CAF50;"></div>

#### Income from operations before special items (in million €)

2015	1,090	<div style="width: 100%; height: 10px; background-color: #4CAF50;"></div>
2014	1,109	<div style="width: 100%; height: 10px; background-color: #4CAF50;"></div>

Change:  
minus €19 million



## How we create value – an example

### Limus®

Innovative combination of active ingredients for efficient fertilizer utilization

#### Value for BASF

Annual market growth for urease inhibitors from 2015 to 2020

>10%

Limus®, our patented formulation from the Functional Crop Care business unit, both improves the ecological profile of urea-based fertilizers and makes them more efficient. Limus® blocks urease enzymes more effectively than comparable products. This improves plants' nitrogen supply and fulfills increased legal mandates to reduce nitrogen loss. We anticipate annual market growth of over 10% for urease inhibitors from 2015 to 2020.

#### Value for the environment

Reduced loss of nitrogen from urea-based fertilizers into the atmosphere

up to 90%

Farmers use mainly urea-based fertilizers to ensure sufficient nitrogen supply, which is crucial for plant growth. However, urease enzymes break down about 50% of the nitrogen contained in the fertilizer into gaseous ammonia. Released into the atmosphere, this negatively impacts the environment. Limus® is an innovative combination of two urease inhibitors able to reduce nitrogen loss from fertilizers by up to 90%.

## Strategy

- **Helping to feed a growing world population**
- **Long-term innovation strategy ensures future growth**
- **Development of solutions that go beyond conventional crop protection**

Our strategy is based on long-term market trends. A key challenge of the future will be to ensure sufficient food for a growing world population. To do so, farmers around the world will need to increase their yields – and yet the natural resources for doing so, such as water and arable land, are limited. We see it as our duty to provide farmers with professional support in producing more – and more nutritious – food as efficiently as possible.

We are committed to the responsible treatment of our products and the environment. We offer our customers a broad portfolio of integrated solutions and continually invest in our development pipeline to create chemical and biological innovations in crop protection.

Our research and development activities range from solutions for protecting plants against fungi, insects and weeds, to seeds and soil management, to plant health.

For example, the Functional Crop Care business unit not only provides products for improving seeds and innovations for better soil management, but also biological and chemical technologies that make plants better able to withstand stress factors like heat, cold and nutrient deficiency.

We are intensifying our investment in growth markets and continuing to expand our good position in our core markets. In collaboration with seed companies, we benefit from the technological competence of BASF Plant Science. In addition, we work together with other BASF divisions and with external partners to be able to offer the best solutions for our customers. Together with John Deere, we collaborate with farmers to further the development of integrated IT applications for precision agriculture. These will provide not only more exact information on crop development, but also support farmers in carrying out the legally required procedures for application and documentation of crop protection measures. In Brazil, our customers can already make use of the DigiLab application to easily diagnose plant diseases and access information on possible and recommended treatments.

**Products, customers and applications**

Indications and sectors	Applications	Example products
Fungicides	Protecting crops from harmful fungal infections; improving plant health	Boscalid, metiram, dimethomorph, Initium®, metrafenone, F 500®, Xemium®, AgCelence® (umbrella brand)
Herbicides	Reducing competition from weeds for water and nutrients	Kixor®, dicamba, pendimethalin, imazamox, topramezone, Clearfield® herbicide tolerance system, dimethenamid-P
Insecticides	Combating insect pests in agriculture and beyond, such as in the fields of public health, professional pest control and landscape maintenance	Fipronil, alpha-cypermethrin, chlorfenapyr, teflubenzuron, Nealta®, Termidor® to guard against termite infestation, Interceptor® mosquito nets to protect against malaria
Functional Crop Care	Products for plant health and increased yield potential that go beyond traditional crop protection, such as biological crop protection, seed treatments, polymers and colorants	Standak® Top, Biostacked®, Flo Rite®, Vault® HP plus Integral®, Subtilex® NG, Limus®

**Investments**

In 2015, we invested €334 million in property, plant and equipment. A major portion of this total consisted of investments to expand production capacities for the dicamba and Kixor® herbicides, as well as the fungicide Xemium®. Furthermore, we continue to invest in the expansion of our capacities in Functional Crop Care. Examples include our new research and development center for seed solutions in Limburgerhof, Germany, and the ramped up production facility in Littlehampton, England, that strengthens our portfolio of biological solutions for agriculture and gardening. In order to continue meeting ongoing high demand for our innovative products in the future, we will invest around €810 million in developing and expanding our production and formulation capacities for active ingredients between 2016 and 2020.

With a pioneering platform for gene identification, BASF Plant Science has specialized in the development of plant characteristics such as higher yield, herbicide tolerance and disease resistance. Our goal is to optimize crops so that farmers can achieve greater and more secure yields. In this way, we make an important contribution to securing a better food supply for a growing world population. We also contribute to sustainable agriculture, as the cultivation of these plants significantly reduces the amount of land, water and energy required to produce each metric ton of harvested crops. One example is the drought-resistant corn launched on the market in 2013, which can protect farmers in the United States from harvest losses in times of drought.

 For more on innovations in BASF Plant Science, see page 38

**BASF Plant Science  
Plant biotechnology at BASF**

BASF Plant Science is one of the world's leading suppliers of plant biotechnology for agriculture. Our headquarters at the Research Triangle Park site near Raleigh, North Carolina, ensure our proximity to our main markets in North and South America. With our global network of research sites, we help farmers meet the growing demand for increased agricultural productivity as well as better nutrition. BASF invested around €150 million for this purpose in 2015. Research expenses, sales, earnings and all other data of BASF Plant Science are not included in the Agricultural Solutions segment; they are reported in Other.

**Segment data<sup>1</sup>** (in million €)

	2015	2014	Change in %
Sales to third parties	5,820	5,446	7
Intersegmental transfers	28	37	(24)
Sales including intersegmental transfers	5,848	5,483	7
Income from operations before depreciation and amortization (EBITDA)	1,321	1,297	2
EBITDA margin %	22.7	23.8	–
Income from operations (EBIT) before special items	1,090	1,109	(2)
Income from operations (EBIT)	1,083	1,108	(2)
Income from operations (EBIT) after cost of capital	154	287	(46)
Assets	8,435	7,857	7
Research expenses	514	511	1
Additions to property, plant and equipment and intangible assets	402	391	3

<sup>1</sup> Research expenses, sales, income and all other data of BASF Plant Science are not included in the Agricultural Solutions segment; these are reported in Other

## Agricultural Solutions

In the Agricultural Solutions segment, we raised sales to third parties by €374 million to €5,820 million in 2015, primarily through higher sales prices. We observed decreased demand for crop protection products over the course of the year, as crop commodity prices remained at a low level. A volatile environment and the depreciation of local currencies, especially in the emerging markets, had a negative effect on our business. In this challenging environment, income from operations before special items declined by €19 million to €1,090 million. Income from operations fell by €25 million to €1,083 million.

For 2016, we expect continued slow market growth and high exchange rate volatility in some of our key growth markets. Despite this difficult economic environment, we plan to increase our sales volumes, especially of innovative herbicides. Through increased sales and continued strict cost management, we aim to slightly improve sales and income from operations before special items.

### Crop Protection

- Sales improve by €374 million to €5,820 million, driven mainly by prices
- At €1,090 million, earnings 2% below prior-year level due to higher fixed costs

We improved sales to third parties by €374 million to €5,820 million compared with the previous year. This was primarily attributable to higher contributions from the herbicide business in North America and from the fungicide business in Europe and South America. In the second half of the year, we were able to offset the depreciation of emerging-market currencies by raising prices (volumes 1%, prices 5%, currencies 1%).

In **Europe**, sales rose by €61 million to €2,107 million, mainly through strong demand for fungicides as well as higher prices in the first half of the year. This allowed us to more than

compensate for weaker demand in the second half of the year due to dry conditions in western Europe. Our business in Russia and Ukraine grew, despite a difficult political environment.

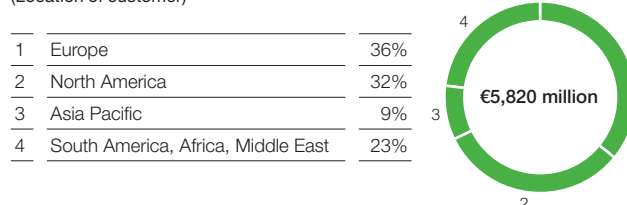
Sales in **North America** exceeded the previous year's level by €296 million, reaching €1,870 million. Higher herbicide sales, especially of Kixor®, and positive currency effects from the U.S. dollar supported this growth. In the fungicides business, sales declined on account of lower crop commodity prices and unfavorable weather conditions.

At €525 million, sales in **Asia** matched prior-year levels as positive currency effects compensated for a sharp drop in volumes. Lower demand for soy herbicides in India was a major factor behind the volumes decline, and was attributable to reduced soybean acreage, a very dry season, and increased competition from generic manufacturers.

Our sales in **South America** grew by €18 million to €1,318 million, while the total South American crop protection market shrank in 2015. In this difficult environment, we considerably increased sales volumes of fungicides, especially Xemium®. In the second half of the year, price increases were unable to fully offset currency losses from the depreciation of the Brazilian real.

Income from operations before special items amounted to €1,090 million, which was €19 million below the level of the previous year. This slight decrease was attributable to higher fixed costs arising mainly from lower plant capacity utilization as a result of the startup of new capacities and inventory reduction at the same time.

#### Crop Protection – Sales by region (Location of customer)



## Oil & Gas

BASF's oil and gas activities are bundled in the Wintershall Group. In 2015, Wintershall and its subsidiaries were active in the Exploration & Production and Natural Gas Trading business sectors.

### Sectors

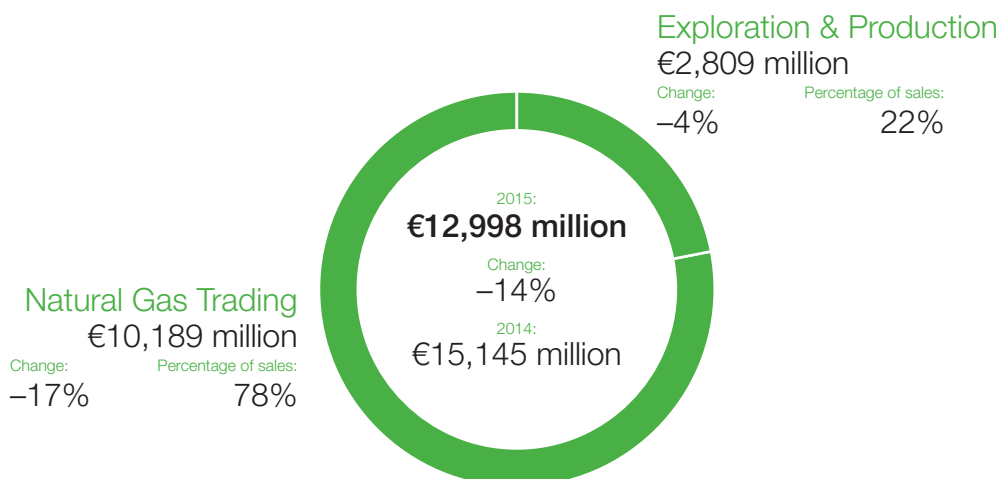
#### Exploration & Production

We focus our exploration and production on oil and gas-rich regions in Europe, North Africa, Russia, South America and the Middle East.

#### Natural Gas Trading

Together with our Russian partner Gazprom, we are active in the transport of natural gas in Europe. We transferred our shares in the formerly jointly run gas trading and storage business to Gazprom at the end of September 2015.

### Sales



#### Factors influencing sales

Factor	Change (%)
Volumes	15%
Prices/currencies	(9%)
Portfolio	(20%)
<b>Sales</b>	<b>(14%)</b>

#### Income from operations before special items (in million €)

Year	Income (€ million)
2015	1,366
2014	1,795

Change: minus €429 million

## How we create value – an example

### Production in Norway's Maria oilfield

Efficient use of existing platforms instead of building a new production facility

#### Value for BASF

Reduction of investment costs  
around **50%**

Through an innovative development concept and the involvement of other companies, we can develop the Maria oilfield in Norway without building a new production platform. Instead, we are using external partners' existing infrastructure and have developed intelligent technical solutions for this. Doing so allows us to increase profitability and reduce development costs by around half when compared with new construction.

#### Value for the environment

Reduction of carbon emissions  
**>50%**

In the Maria oilfield, a subsea tieback will connect two well-head installations on the sea floor to three platforms over a distance of up to 45 kilometers. This consumes significantly less material than the construction of a new production facility. Existing infrastructure is put to its best possible use, and less energy is required for oil production and processing, thereby reducing carbon emissions by more than half.

## Strategy

- Pursuit of our growth strategy through exploration, acquisitions, strategic partnerships and technological expertise
- Asset swap with Gazprom
- Contribution to securing Europe's natural gas supply

In the future, crude oil and natural gas will continue to contribute significantly toward covering the rising energy demand of a growing world population. That is why we invest in the exploration and production of oil and gas, primarily in our core regions Europe, North Africa, Russia and South America, thereby continuing along our growth course. We also aim to establish the Middle East as another core region in our portfolio.

Selected collaborations, strategic partnerships, innovative technologies and the responsible development and production of hydrocarbons all form the basis of our growth-oriented strategy. Through the continuous optimization of our cost structure and portfolio of oil and gas activities, we ensure our future competitive viability, even in times when oil and gas prices are low. Measured by production volumes as well as by contribution to income from operations before special items, gas activities comprised around 70% of our portfolio in 2015.

Handling hydrocarbons in a responsible manner demands special measures for the protection of people and the environment. We therefore carefully assess the potential effects of

every project before we begin. Together with experts, contractors and relevant stakeholders, we develop methods and implement measures to be able to use resources even more efficiently and minimize the impact on the environment. In doing so, we act in accordance with international agreements, legal requirements and our own, self-imposed high standards.

On September 30, 2015, we and our partner Gazprom completed the swap of assets of equivalent value that had originally been planned for the end of 2014. The swap took place with retroactive financial effect to April 1, 2013. This transaction gave BASF the economic equivalent of 25.01% of the blocks IV and V in the Achimov formation of the Urengoy natural gas and condensate field in western Siberia. These two blocks will be developed jointly by Gazprom and Wintershall. According to the development plan originally confirmed by Russian authorities, they contain total hydrocarbon resources of 274 billion cubic meters of natural gas and 74 million metric tons of condensate. As these figures are still undergoing review, new findings may give rise to adjustments. Production is scheduled to start in 2018.

In return, BASF transferred its shares in the previously jointly run natural gas trading and storage business to Gazprom. This included the 50.02% shares in the following: the natural gas trading company WINGAS GmbH, Kassel, Germany; the storage company astora GmbH & Co. KG, Kassel, Germany, which operates natural gas storage facilities in Rehden and

Jemgum, Germany; and WINGAS Holding GmbH, Kassel, Germany, including its share in the natural gas storage facility in Haidach, Austria. BASF also transferred its 50% share in each of the natural gas trading companies Wintershall Erdgas Handelshaus GmbH & Co. KG, Berlin, Germany, and Wintershall Erdgas Handelshaus Zug AG, Zug, Switzerland. Gazprom furthermore became a 50% shareholder in Wintershall Noordzee B.V. in Rijswijk, Netherlands, which is active in the exploration and production of natural gas and crude oil deposits in the North Sea. In the first three quarters of 2015, these activities contributed a total of around €10.1 billion to sales, about €260 million to income from operations before special items, and approximately €650 million to EBITDA. This EBITDA figure includes special income from the asset swap.

Our cooperation with Gazprom in the natural gas transport business will continue unaltered. With western Europe's demand for natural gas steadily on the rise while its local production simultaneously decreases, it is becoming more and more important to secure sufficient imports. For this reason, we and other European partners want to participate in the expansion of the Nord Stream Pipeline. The Nord Stream 2 project intends to build two additional offshore pipelines from Russia to Germany through the Baltic Sea, helping ensure a long-term and reliable supply of natural gas to the European Union. 

## Exploration & Production

### ■ Active portfolio management, including expansion of our position in Norway

**Europe:** The Mittelplate field off the North Sea coast is the cornerstone of our crude oil production in Germany. We own a 50% stake in this field, the largest known oil deposit in the country. At the Bockstedt oilfield, the field test for increasing recovery rates using the biopolymer Schizophyllan was continued.

With the acquisition of shares in the Vega and Gjøa fields in Norway at the end of 2014, Wintershall established itself as one of the largest producers on the Norwegian continental shelf. In March 2015, Wintershall Norge AS took over operatorship of the Vega oil and gas field from Statoil.

We began production in the Knarr field in the Norwegian North Sea in March 2015. We continued work on developing the Edvard Grieg oilfield, and the first volumes were produced at the end of November. At the beginning of September, the Norwegian Ministry of Petroleum and Energy approved the plan for development and operation of the Maria field submitted by Wintershall, the field's operator. The plan involves linking the field to the Kristin, Heidrun and Åsgard B production platforms via subsea ties.

We began production of natural gas at the unmanned L6-B "minimum facility" platform in the Dutch North Sea. This miniplatform is one of a new generation of facilities that can be deployed in especially shallow waters, enabling economic yield from even very small deposits. We ceased the production of crude oil from the Kotter and Logger developments in the Dutch North Sea, as the limited volumes remaining can no longer be produced in an economical manner.

**Russia:** The Yuzhno Russkoye natural gas field in western Siberia, in which we have a 35% economic interest, has been operating at plateau production since 2009. The first wells were successfully drilled for the development of the Turon horizons, a further formation in this natural gas field. We hold a 50% stake in the development of Block IA of the Achimov formation in the Urengoy field in western Siberia. The gradual development of this field was continued; 62 wells were producing at the end of 2015. We will develop blocks IV and V of the Achimov formation together with Gazprom.

**North Africa / Middle East:** In Libya, we are the operator of eight oilfields in the onshore concessions 96 and 97. Due to difficult political conditions, we were only able to produce in concession 96 from February to May 2015 and from September to the beginning of November 2015, for a total of 125 days. Operations were able to continue uninterrupted at the Al Jurf offshore oilfield in Libya, in which we have a stake.

In Abu Dhabi, we completed our first exploration drilling as operator in the development of the Shuweihat sour gas field; preparations are underway for a further exploration well. Our activities in Qatar were suspended in May of 2015 with the expiration of the concession license.

**South America:** We hold shares in a total of fifteen onshore and offshore fields in Argentina. We began two shale drillings as operator in the Vaca Muerta formation in the Neuquén province in March, as stipulated in the joint operation agreement between Wintershall Energía and Gas y Petróleo del Neuquén. In December 2015, we increased our share in the Aguada Federal block – part of the Vaca Muerta formation in the Neuquén province – from 50% to 90%. In Chile, we hold 10% of the San Sebastian block.

 For more on current reserves, see pages 91 and 225



**Capital expenditures**

Location	Project	Plateau/peak production per year <sup>1</sup>	Startup
Argentina	Development of Vega-Pleyade field	9 million BOE	2016
North Sea, Norway	Development of Knarr field	4 million BOE	2015
	Development of Maria field	7 million BOE	2018
	Development of Edvard Grieg field	5 million BOE	2015/2018 <sup>2</sup>
	Development of Aasta Hansteen field	12 million BOE	2018
Siberia, Russia	Achimgaz, development of Achimov horizon in Urengoy natural gas and condensate field	43 million BOE	2008/2019 <sup>2</sup>

<sup>1</sup> BASF's share in barrels of oil equivalent (BOE)

<sup>2</sup> Year completed

**Natural Gas Trading**

- Gas trading and storage business transferred to Gazprom in asset swap
- Natural gas transport activities to be continued together with Gazprom

Our natural gas trading and storage activities were transferred to Gazprom with the asset swap completed in September 2015. We will continue our joint activities in the gas transport sector with Gazprom in the Oil & Gas segment, but they will not be separately reported.

As a holding company for the German subsidiaries in natural gas transport, WIGA Transport Beteiligungs-GmbH & Co. KG (WIGA) mainly fulfills a reporting and financing capacity. GASCADE Gastransport GmbH, OPAL Gastransport GmbH & Co. KG, and NEL Gastransport GmbH all act as independent subsidiaries under the umbrella of the holding company. This organizational structure allows us to meet the unbundling requirements set down by the German Energy Act. The widely regulated transport sector is characterized by stable conditions and yields based on approved costs and tariffs.

The companies under the WIGA umbrella operate a 3,300 kilometer long-distance network that includes the pipeline links to the Nord Stream Pipeline, the Baltic Sea Pipeline Link (OPAL) and the North European Gas Pipeline (NEL).

We hold a 15.5% share in the Nord Stream Pipeline through Nord Stream AG, which is accounted for in the BASF Group's financial statements using the equity method. Other shareholders are Gazprom (51%) and E.ON (15.5%), as well as N.V. Nederlandse Gasunie and GDF Suez (9% each). With a total capacity of 55 billion cubic meters of natural gas per year, this pipeline, which stretches from Russia to the German coast over the Baltic Sea, helps shore up supply security in Europe.

In order to carry out the Nord Stream 2 pipeline project, we signed the contracts in September 2015 to build two additional offshore pipelines through the Baltic Sea. The project will be developed by the company Nord Stream 2 AG. Gazprom holds a 50% share in the project company; BASF/Wintershall, ENGIE, E.ON, OMV and Shell will each hold a 10% share upon approval by the relevant authorities.

**Segment data<sup>1</sup>** (in million €)

	2015	2014	Change in %
Sales to third parties	12,998	15,145	(14)
Intersegmental transfers	766	907	(16)
Sales including intersegmental transfers	13,764	16,052	(14)
Income from operations before depreciation and amortization (EBITDA)	2,587	2,626	(1)
EBITDA margin %	19.9	17.3	–
Income from operations (EBIT) before special items	1,366	1,795	(24)
Income from operations (EBIT)	1,072	1,688	(36)
Income from operations (EBIT) after cost of capital	(443)	369	.
Assets	12,373	13,686	(10)
Research expenses	50	50	–
Exploration expenses	195	132	48
Additions to property, plant and equipment and intangible assets	1,823	3,162	(42)
Net income <sup>2</sup>	1,050	1,464	(28)

<sup>1</sup> Supplementary information on the Oil & Gas segment can be found from page 225 onward

<sup>2</sup> For more on net income in the Oil & Gas segment, see reconciliation reporting for Oil & Gas in the Notes to the Consolidated Financial Statements on page 180.

## Oil & Gas

At €12,998 million, the Oil & Gas segment's sales to third parties were €2,147 million lower than in 2014 (volumes 15%, prices/currencies –9%, portfolio –20%). This was largely a result of the asset swap with Gazprom completed at the end of September, which meant that contributions from the natural gas trading and storage business, as well as from Wintershall Noordzee B.V., ceased starting in the fourth quarter of 2015. The significant drop in the price of oil led to slightly lower sales in the Exploration & Production business sector. However, sales were positively impacted by a volumes increase in both the Exploration & Production and Natural Gas Trading business sectors. The drop in sales meant a decline in income from operations before special items by €429 million to €1,366 million. Special charges totaled €636 million in 2015; these arose predominantly from impairments on exploration and production projects and on goodwill as a result of our reduced oil and gas price assumptions. Special income of €342 million, particularly from the asset swap with Gazprom, was only partly able to compensate for this. Income from operations therefore decreased by €616 million to €1,072 million. Net income declined by €414 million to €1,050 million.

Our planning for the 2016 business year is based on an average oil price of Brent crude of \$40 per barrel and an exchange rate of \$1.10 per euro. On average, gas prices are likely to hover considerably below the level of 2015. We expect to expand production; however, sales and income from operations before special items are likely to see a considerable decline compared with 2015, largely on account of the significant drop in oil and gas prices as well as the divestiture of the gas trading and storage business. Furthermore, we will generate lower sales and earnings from our share in the Yuzhno Russkoye natural gas field, as the surplus quantities produced over the last ten years will be compensated in 2016 as contractually agreed with our partner Gazprom.

### Oil & Gas – Sales by region (Location of customer)

1	Europe	96%
2	North America	0%
3	Asia Pacific	0%
4	South America, Africa, Middle East	4%



## Exploration & Production

- At €2,809 million, sales down by 4%, mainly owing to lower prices
- Crude oil and natural gas production up by 13%
- Declining production in Germany due to authorization status for fracking plans
- Earnings below prior-year level, mainly weighed down by prices

Sales to third parties in the Exploration & Production business sector amounted to €2,809 million, 4% below the level of the previous year. Higher volumes in Russia and portfolio-driven growth in Norway were unable to offset the sharp drop in prices. Furthermore, sales at Wintershall Noordzee B.V. have not been included in BASF Group sales since the fourth quarter of 2015, as the asset swap with Gazprom resulted in accounting for the company using the equity method instead of full consolidation.

The price of Brent crude oil fell by 47% compared with 2014, to \$52 per barrel. In euro terms, this was a decrease of 37% to €47 per barrel (2014: €74 per barrel).

Income from operations before special items fell considerably compared with the previous year, mainly as a result of lower prices.

We increased our crude oil and natural gas production by 13%, up to 153 million barrels of oil equivalent (BOE). Production rose substantially both in Norway and in our joint operation Achimgaz in Russia. Despite difficult political conditions, we were able to produce in onshore concession 96 in Libya from February to May and from September to the beginning of November 2015 for a total of 125 days. Contrasting this was the further decrease of production in Germany, which was influenced by both a natural production decline and the authorization logjam for fracking plans in conventional deposits that has continued for more than four years.

In the search for new crude oil and natural gas deposits, we finished drilling a total of 25 exploration and appraisal wells in 2015, of which 17 were successful.

Our proven crude oil and natural gas reserves increased by 2% compared with the end of 2014, to 1,744 million BOE. We replenished 123% of the volumes produced in 2015. The reserve-to-production ratio is around 11 years (2014: 13 years). This is based on Wintershall's share of production in 2015 and refers to the reserves at year-end.

🔗 For more on our crude oil and natural gas reserves, see page 225 onward

## Natural Gas Trading

- Sales decline by 17% to €10,189 million as contribution from trading and storage activities ceases in fourth quarter
- Earnings rise significantly through contribution from trading business

In the Natural Gas Trading business sector, sales to third parties decreased by 17% million to €10,189 million. This was due to the asset swap completed with Gazprom on September 30, 2015, through which the contributions from trading and storage activities were discontinued in the fourth quarter. In the first three quarters of 2015, these activities had contributed around €10.1 billion to sales. In the same period, 497 billion kilowatt hours in volumes were generated, which was 88 billion kilowatt hours more than in the same period of the previous year. As a consequence of the transaction, sales volumes decreased by 64 billion kilowatt hours compared with the full 2014 business year. WINGAS provided 3% of its volumes to BASF Group companies outside of the Oil & Gas segment.

Income from operations before special items considerably exceeded the level of the prior year. Lower contributions from both the storage and transport businesses were more than offset by higher earnings from the trading business.

## Regional results

### Regions (in million €)

	Sales by location of company			Sales by location of customer			Income from operations before special items <sup>1</sup>		
	2015	2014	Change in %	2015	2014	Change in %	2015	2014	Change in %
Europe	38,675	42,854	(10)	36,897	40,911	(10)	4,527	4,759	(5)
Thereof Germany	28,229	32,241	(12)	13,483	15,126	(11)	2,038	1,994	2
North America	15,665	15,467	1	15,390	15,213	1	1,425	1,566	(9)
Asia Pacific	11,712	11,643	1	12,334	12,341	0	409	614	(33)
South America, Africa, Middle East	4,397	4,362	1	5,828	5,861	(1)	378	418	(10)
	<b>70,449</b>	<b>74,326</b>	<b>(5)</b>	<b>70,449</b>	<b>74,326</b>	<b>(5)</b>	<b>6,739</b>	<b>7,357</b>	<b>(8)</b>

<sup>1</sup> By location of company

### Europe

- At €38,675 million, sales down by 10% from level of previous year
- Ludwigshafen Verbund site strengthened by further investments

At €38,675 million, sales at companies headquartered in the region Europe in 2015 were 10% below the level of 2014. This was largely due to lower sales prices in addition to the asset swap with Gazprom completed at the end of September, through which the the natural gas trading and storage business in particular ceased its contributions to the Oil & Gas segment in the fourth quarter of 2015.

The Chemicals segment saw a mainly price-related decline in sales. With volumes stable, sales in the Performance Products segment were slightly below the previous year's level. In the Functional Materials & Solutions segment, we were able to compensate for lower prices through higher demand and positive currency effects. Sales rose slightly in the Agricultural Solutions segment. This was primarily the result of positive price developments.

Income from operations before special items amounted to €4,527 million, a decrease of 5% compared with 2014. This was mainly because of the significantly lower contribution from the Oil & Gas segment on account of the lower price of oil as well as considerably lower earnings in Other. The sharp earnings improvement in the chemicals business<sup>1</sup> could only partly offset this.

We want to continue expanding our position on the market and with our customers through investments and innovations. For this reason, we strengthened the Ludwigshafen Verbund site with further investments. A multiple-product facility for special amines with multifaceted applications began production in 2015, and the new TDI complex gradually started operations beginning in November 2015.

### North America

- Sales rise by 1% to €15,665 million compared with previous year
- Startup of dispersions plant in Freeport, Texas, and formic acid production in Geismar, Louisiana

Sales at companies headquartered in North America grew by 1% year-on-year to €15,665 million. In local currency terms, they fell by 15% in the region. The sales increase was essentially due to positive currency effects in all divisions, which more than compensated for raw material cost-related price drops in the chemicals business – especially in the Petrochemicals division – as well as an overall slight decline in sales volumes.

In 2015, income from operations before special items fell to €1,425 million and therefore decreased by 9% compared with the previous year, mainly as a result of unfavorable sales and margin developments in the Chemicals segment. A lower contribution came from the Performance Products segment, as well. Considerable earnings improvement in the Functional Materials & Solutions segment and a slight increase in Agricultural Solutions partially offset the decrease.

In this region, we continue to focus on innovation, attractive market segments and cross-business initiatives in order to ensure profitable growth. At the same time, we are enhancing our operational excellence through ongoing improvements. Attractive growth prospects in North America and cost-effective raw material prices are strengthening our investment plans in the region. At our site in Freeport, Texas, we commenced operations at a new dispersions plant and began construction of a new ammonia plant together with Yara. Our production facility for formic acid started up in Geismar, Louisiana, making us the first formic acid producer in North America. We are exploring an investment in a world-scale methane-to-propylene complex on the U.S. Gulf Coast.

<sup>1</sup> Our chemicals business comprises the Chemicals, Performance Products and Functional Materials & Solutions segments.

**Sales by region**

(Location of company)

1	Germany	40%
2	Europe (excl. Germany)	15%
3	North America	22%
4	Asia Pacific	17%
5	South America, Africa, Middle East	6%

**Income from operations before special items by region**

1	Germany	30%
2	Europe (excl. Germany)	37%
3	North America	21%
4	Asia Pacific	6%
5	South America, Africa, Middle East	6%

**Asia Pacific**

- Sales grow by 1% to €11,712 million
- Local production bolstered by startup of several plants in China

With decelerating market growth, sales at companies headquartered in the Asia Pacific region rose by 1% to €11,712 million. In local currency terms, sales declined by 12%.

Considerable sales increases, primarily in the Catalysts, Coatings and Care Chemicals divisions, were able to more than compensate, in particular, for declines in the Petrochemicals and Monomers divisions as well as in Other. Currency effects positively influenced sales, especially in the first half of the year. In the Chemicals segment in particular, lower raw material costs and higher production capacities on the market resulted in falling prices. Sales were furthermore weighed down by the disposal of our shares in the Ellba Eastern Private Ltd. joint operation in Singapore and by the divestiture of our textile chemicals business.

Income from operations before special items fell by 33% to €409 million. Significant factors here were higher fixed costs stemming from the startup of new plants and from lower plant capacity utilization, which was mainly attributable to several scheduled maintenance shutdowns in the first half of the year.

As part of our regional strategy, we are striving to further raise the proportion of sales coming from local production in Asia Pacific in the years ahead. We once again made progress toward this goal: In China, we started operations at new production sites and plants in Chongqing, Nanjing, Maoming and Shanghai. Further investment projects are currently in the construction phase, as planned. The continuing expansion of our Innovation Campus Asia Pacific in Shanghai, China, strengthens the presence of this growth region within the global Research Verbund. To improve profitability in Asia Pacific, we intensified our measures to increase efficiency and effectiveness.

**South America, Africa, Middle East**

- Sales grow by 1% to €4,397 million
- New production complex for acrylic acid and superabsorbents inaugurated in Camaçari, Brazil

Sales at companies headquartered in the region South America, Africa, Middle East grew by 1% to €4,397 million compared with 2014. In local currency terms, sales were up by 7%.

Gross domestic product shrank in South America as a consequence of the recession in Brazil and the deteriorating economic environment in other countries in the region. Our sales declined slightly under these conditions. We were only partly able to offset negative currency effects, especially from the depreciation of the Brazilian real, by raising prices. Sales decreased in the chemicals business but rose in the crop protection business and in the Oil & Gas segment.

Companies in Africa and in the Middle East showed considerable sales growth, driven by volumes and currencies. In Africa, we raised sales primarily in the Functional Materials & Solutions segment. In the Middle East, substantially increased demand in the Construction Chemicals division had a positive effect on sales.

Income from operations before special items declined by 10% to €378 million, essentially because of higher fixed costs in the Petrochemicals and Care Chemicals divisions from starting up the acrylic acid and superabsorbent production complex in Camaçari, Brazil, in the second quarter of 2015.

In addition to our growth strategy, we implemented a series of structural measures in South America that increase our productivity and sharpen the focus on our customers' needs. With operations beginning at the production complex in Camaçari, Brazil, we are well positioned to take part in the region's growing demand, viewed over the long term.

We continued to expand our local presence in Africa in 2015 with a range of measures. This included inaugurating a production plant for concrete additives in Lagos, Nigeria, in October 2015.

# Responsibility along the value chain

## Suppliers



Our objective is to secure competitive advantages for BASF through professional procurement structures. Our suppliers are an important element of our value chain. Together with them, we aim to create value and minimize risks.

### Strategy

With our sustainability-oriented supply chain management, we contribute to risk management by boosting our suppliers' awareness of our expectations and standards, and by supporting them in carrying out our specifications. We count on reliable supply relationships and want to make our suppliers' contribution to sustainable development transparent. In order to achieve this, we set ourselves an ambitious goal: By 2020, we aim to evaluate the sustainability performance of 70% of the BASF Group's relevant suppliers<sup>1</sup> pursuant to our risk-based approach and develop action plans for any necessary improvements. The proportion of evaluated relevant suppliers was at 31% by the end of 2015. Furthermore, our Procurement competence center supports BASF's business units in developing solutions to stand out from the competition in addressing market-specific requirements.

#### 2020 Goal

Percentage of relevant suppliers evaluated for their sustainability performance

70%

### Worldwide procurement

From our suppliers, we obtain raw materials, technical goods, and services – from technical to logistics and building facility services. BASF acquired raw materials, goods and services for our own production totaling approximately €35 billion in value from more than 75,000 suppliers around the world in 2015. Around 90% of this was locally sourced. With regard to our suppliers, there were no substantial changes in our value chain in 2015.

### What we expect from our suppliers

- Global Supplier Code of Conduct
- Country-specific risk analysis forms basis of new supplier selection

Both new and existing suppliers are selected and evaluated not only on the basis of economic criteria, but also on environmental, social and corporate governance standards. Our Supplier Code of Conduct is founded on internationally recognized guidelines, such as the principles of the United Nations' Global Compact, the International Labor Organization (ILO) conventions and the topic areas of the Responsible Care Initiative. Available in 26 languages, the Code of Conduct covers environmental protection as well as compliance with human rights, labor and social standards, and antidiscrimination and anticorruption policies.

A country-based risk analysis forms the basis of our selection process for new suppliers. As a result of the country-related risks identified in South America and Asia, we queried around 1,500 suppliers in 2015 on their commitment to the values of our Supplier Code of Conduct. Moreover, we provided training to a total of 525 suppliers with an elevated sustainability risk, especially in Asia and South America.

In addition, we instructed 363 procurement employees on sustainability-oriented supplier management. These are ways in which potential supply chain risks can be identified and minimized together with our suppliers.

<sup>1</sup> We define relevant suppliers as those showing an elevated sustainability risk potential as identified by risk matrices and with respect to corresponding country risks. Our suppliers are evaluated based on risk due to the size and scale of our supplier portfolio.



## Evaluating our suppliers

- **“Together for Sustainability” initiative aims to harmonize and standardize supplier assessments and audits**
- **135 raw material supplier sites audited**

BASF is a founding member of the Together for Sustainability (TfS) initiative of leading chemical companies for the global standardization of supplier evaluations and auditing. With the help of TfS, we advance sustainability in the supply chain. The initiative aims to develop and implement a global program for the responsible supply of goods and services and improve suppliers' environmental and social standards. The evaluation process is simplified for both suppliers and TfS member companies by a globally uniform questionnaire. The initiative's members conducted a total of 2,580 sustainability assessments and 179 audits in 2015. The number of members rose from twelve to 18. Together with the TfS initiative, we conducted a Supplier Day in São Paulo, Brazil, in 2015. TfS also held a joint conference in Shanghai, China, with the China Petroleum and Chemical Industry Federation (CPCIF) with the goal of enhancing mutual understanding of the challenges associated with sustainability.

In 2015, we held our first global Supplier Day in Ludwigshafen in order to set up new modes of collaboration together with selected suppliers.

Using TfS evaluations, we pursue a risk-oriented approach with clearly defined, BASF-specific follow-up processes. We drive these processes through a sustainability-oriented IT tool. Suppliers with an elevated sustainability risk are identified using risk matrices. Furthermore, our purchasers indicate the suppliers for whom they see a potentially elevated sustainability risk. We additionally check various information sources to see if any suppliers have been observed in connection with negative sustainability incidents. Based on these analyses, we conducted sustainability standard audits for a total of 135 raw material supplier sites and initiated 1,044 sustainability assessments through an external service provider in 2015.

In 2015, for example, we audited a supplier of mineral raw materials in South Africa and identified room for improvement primarily in the areas of environment and safety.

If we identify potential for improvement, we support suppliers in developing measures to fulfill our standards. We conduct another review according to a defined timeframe based on the sustainability risk measured. If the weak points discovered were particularly severe and we are unable to confirm any improvement, we reserve the right to terminate the business relationship.

This occurred in four cases in 2015. We use this approach to evaluate suppliers with an elevated sustainability risk at least every five years. The approach itself is reviewed every two years to identify possibilities for optimization.

## Supplier training

In 2015, we continued the collaborations begun in China and Brazil in 2014 to instruct suppliers on sustainability standards. We have developed a training program together with the East China University of Science and Technology in Shanghai, and plan to educate around 2,000 suppliers by 2019. We are pursuing the same approach in Brazil together with the Espaço ECO® Foundation. Through these cooperations, 485 suppliers already received training in 2015.

## Audit results

Our audits have revealed some deviations with respect to working hours and payment of the minimum wage, especially in China. Here, we have called for improvements on the part of our suppliers. None of our 2015 audits identified instances of child labor. For the suppliers we reviewed, persons under 18 were excluded from overtime, night shifts and dangerous work. We did not find any incidences of forced labor or other human rights violations in 2015.

 For more on sustainability in procurement, see [basf.com/suppliers](http://basf.com/suppliers)



## Raw materials



**Responsible resource management is an integral part of our strategy. It is applied within the company through our Verbund concept, our innovative products and the use of renewable raw materials. In the search for alternative raw materials, we employ solutions that contribute to sustainability. We as a company are dependent on ecosystem services and also have an impact on them. Examples include the availability of clean water and renewable resources, or even the effects of ecosystem services on the preservation of air, water and soil quality.**

### Strategy

The Verbund system is an important cornerstone of our resource efficiency strategy: The by-products of one plant often serve as feedstock elsewhere, thus helping us to use raw materials more efficiently. In 2015, BASF purchased a total of around 30,000 different raw materials from more than 6,000 suppliers. Some of our most important raw materials are naphtha, natural gas, methanol, ammonia and benzene. We apply the “mass balance approach” in our Verbund system for the use of renewable raw materials. Furthermore, we are involved in the responsible cultivation and utilization of renewables in numerous projects along the value chain.

### Renewable resources

- **Bio-based PolyTHF® 1000 offered for testing purposes for the first time**
- **New voluntary commitment and goals for procuring palm oil products**

In 2015, around 5.8% of the raw materials we purchased worldwide were from renewable resources. To make the use of these materials more competitive, we work on product innovations based on renewable raw materials as well as on enhancing production processes in reaction technology and preparation.

We also further promoted our “mass balance” method on the market in 2015. This approach uses renewable raw materials from certified sustainable production from the very beginning of the value chain in the existing Production Verbund in order to save fossil resources. The proportion of renewable raw materials is allocated to customer-selected products according to their formulations. The quality of the final product remains unchanged. This method is currently being applied for numerous BASF products – for example, for superabsorbents, dispersions, plastics such as polyamides and polyurethanes, and for intermediates available on the market as “drop-in products.” These can be used in place of previously employed products in the production process without having to change the process itself.

Since 2013, we have provided our customers with 1,4-butanediol (BDO) on a commercial scale using sugars as a renewable feedstock based on a licensing agreement with the U.S. company Genomatica Inc. BDO and its derivatives are used, for example, to manufacture plastics for the automotive and textile industries. We use BDO produced with the Genomatica license to make bio-based polytetrahydrofuran 1000 (PolyTHF® 1000), which we offered to customers for testing purposes for the first time in 2015. PolyTHF® 1000 primarily serves as a chemical component in thermoplastic polyurethane (TPU), an ingredient used to manufacture skis and roller skates, shoe soles, dashboard films in the automotive industry, and many other products.

In 2015, we completed our joint project with Cargill and the German governmental agency for international cooperation on the sustainable production of coconut oil in the Philippines. Small farmers now produce the world's first Rainforest Alliance-certified dried coconut meat (copra), from which the oil is extracted.

Palm oil, palm kernel oil, and their derivatives are some of our most important renewable raw materials. We want to ensure that the raw materials we use stem from sustainable, certified sources and actively support the Roundtable on Sustainable Palm Oil (RSPO). In 2015, we revised and expanded our voluntary commitment to the sustainable procurement of palm oil products. This is to contain guidelines for procuring palm oil and palm kernel oil, as well as their primary derivative products. The guidelines involve requirements for protecting and preserving forests and peatland, along with the involvement of local residents in decision-making processes. In order to further increase the availability of sustainable, RSPO-certified palm oil and palm kernel oil, we will involve more and more small farmers by supporting suitable projects. Our goal is to exclusively obtain palm oil and palm kernel oil that has been certified by the RSPO insofar as this is available on the market. The voluntary commitment has been expanded to include the most important intermediate products based on palm oil and palm kernel oil up through 2025; these include fractions and primary oleochemical derivatives as well as edible oil esters.

For more on our voluntary commitment, see [basf.com/en/palm-dialog](http://basf.com/en/palm-dialog)

## Mineral raw materials

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We procure a number of mineral raw materials, like precious metals, that we use to produce process and mobile emissions catalysts. In suspected cases, we investigate the origins of minerals – as defined in the Dodd Frank Act – to see if they come from conflict mines. We reserve the right to conduct an external audit and, if necessary, terminate our business relationship. The suppliers addressed have confirmed to us that they do not source minerals matching this definition from the Democratic Republic of Congo or its neighboring countries.

## Preserving ecosystems

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- **Our production sites reviewed for proximity to internationally protected areas**
- **BASF partnership supports preservation of biodiversity**

Biodiversity forms the foundation of ecosystem services. Internationally protected areas play a critical role in maintaining biodiversity around the world. This is why, in 2015, we once again investigated our production sites to discover which are located near internationally protected areas: 2% of production sites (excluding Oil & Gas) are adjacent to a Ramsar Site and 2% to a Category I, II or III protected area of the International Union for Conservation of Nature (IUCN). None of our production sites are adjacent to a UNESCO protected area. Our 2015 analyses revealed no impact of our activities on biodiversity in these areas. In 2016, we will review the evaluation methods we have used up to now in order to even better identify any relevant impacts in the future.

Furthermore, we promote projects that contribute to the preservation of biodiversity. These include, for example, the “Farm Network” – a partnership brought to life by BASF in 2002 between independent farms, environmental protection organizations, universities and agricultural technology suppliers. The partners concentrate on strengthening biodiversity as well as responsible use of water and soil in commercial agriculture. By developing practical and locally adaptable measures for modern farms, the Farm Network has already helped numerous farmers increase the biodiversity of birds and insects in their fields and save water and soil resources. The first Farm Network conference took place in 2015, where BASF invited experts from six European countries to share their experiences with new agricultural practices and strengthen their network.



# Safety, security, health and the environment

## Responsible Care Management System



We act responsibly as an integral part of society and have set out the framework for our voluntary commitments in our Responsible Care Management System. We never compromise on the safety and security of our employees, contractors and neighbors as well as our facilities, transportation and products.

### Strategy

- Revised and updated goals for safety, security, health and environmental protection

BASF's Responsible Care Management System comprises the global rules, standards and procedures for safety, security, health and environmental protection for the various stations along our value chain. Our regulations cover the transportation of raw materials, activities at our sites and warehouses, and distribution of our products as well as our customers' application of the products. At our sites, we address energy and climate protection as one of the topics covered by our energy management. Specifications for implementing these measures are laid out in binding directives that are introduced in consultation with employee representatives. These describe the relevant responsibilities, requirements and assessment methods. We regularly conduct audits to monitor our performance and progress. We use the findings from these audits for continual improvement.

We set ourselves ambitious goals for safety, security, health and environmental protection. Our guidelines and requirements are constantly updated. We revised our goals in 2015. For example, we replaced our previous goals for water with an expanded goal for sustainable water management. We introduced a new, ambitious goal for process safety, which aims to reduce the number of plant safety incidents. In addition, we set ourselves a new energy and climate protection goal for the global implementation of our energy management system. In this way, we can identify and launch measures to increase energy efficiency in an even more flexible manner, depending on local raw material and energy prices.

We assess potential risks and weak points in all areas ranging from research and production to logistics, and how these could affect the environment, the surrounding community or the safety and security of our employees. In our databases, we document accidents, near misses and safety-related incidents at our sites as well as along our transportation routes. We foster awareness of workplace safety and safe behavior in every individual with our worldwide safety initiatives.

For more on Responsible Care, see [basf.com/en/responsible-care](http://basf.com/en/responsible-care)

### Audits

- 130 environmental, safety and security audits conducted at 82 sites

Regular audits help ensure that standards are met for safety, security, health and environmental protection. We carry out audits at BASF sites and at companies in which BASF is a majority shareholder. We have defined our regulations for Responsible Care audits in a global Group directive. During our audits, we create a safety and environmental profile that shows if our performance is sufficient to properly address the existing hazard potential. If this is not the case, we agree on measures and conduct follow-up audits on their implementation soon afterward. One result of the audits showed the necessity of swiftly implementing new guidelines and processes, for example.

Our internal audit system complies with the standards for external auditing procedures ISO 19011 and OHSAS 18001. Worldwide, 180 BASF production sites are certified in accordance with ISO 14001 (2014: 191)<sup>1</sup>. We conducted short-notice audits on various topics worldwide in 2015, which included facility inspections and document reviews. In 2015, 130 environmental, safety and security audits were carried out at 82 sites, along with 68 short-notice audits on various topics at 44 sites in the BASF Group. We audited 53 sites with respect to occupational medicine and health protection.

For more on occupational safety and health protection, see page 100 onward



### Costs and provisions for environmental protection in the BASF Group (in million €)

	2015	2014
Operating costs for environmental protection	962	897
Investments in new and improved environmental protection plants and facilities <sup>1</sup>	346	349
Provisions for environmental protection measures and remediation <sup>2</sup>	538	621

<sup>1</sup> Investments comprise end-of-pipe measures as well as integrated environmental protection measures.

<sup>2</sup> Values shown refer to December 31 of the respective year.

<sup>1</sup> In addition to changes in the site portfolio, the decrease mainly resulted from the sites' aim to be certified in accordance with ISO 50001 due to our energy efficiency goal.

## Transportation and storage



Our regulations and measures for transportation and warehouse safety cover the delivery of raw materials, the storage and distribution of chemical products among BASF sites and customers, and the transportation of waste from our sites to the disposal facilities.

### Strategy

#### ■ New reporting approach on transportation incidents

In 2014, we had already nearly achieved our goal of reducing the number of worldwide transportation accidents per 10,000 shipments by 70% from 2003 to 2020. That is why we redesigned our reporting on transportation accidents in 2015. From now on, we are focusing on transportation incidents with dangerous goods spillages that significantly impacted the environment. We will report on dangerous goods leaks of BASF products in excess of 200 kilograms on public transportation routes, provided BASF arranged the transport. The global requirement for reporting on transportation incidents was adjusted accordingly and implemented worldwide.

### Transportation incidents

In 2015, there were two incidents resulting in product spillage of more than 200 kilograms of dangerous goods (2014: 5). None of these transportation incidents had a significant impact on the environment (2014: 1).

### Accident prevention and emergency response

- Revised questionnaire for assessing transportation safety of chemicals and gases on seagoing vessels
- Risk assessment conducted for shipments involving high hazard potential

We stipulate worldwide requirements for our logistics service providers and assess them in terms of safety and quality. In 2015, we evaluated around 500 companies in all regions. Our experts use our own evaluation and monitoring tools as well as internationally approved schemes.

We revised our questionnaire for the transportation of chemicals and gases on seagoing vessels to align with that of the Chemical Distribution Institute in 2015. Particular emphasis is placed on crew training and experience, especially in the selection of service providers.

We regularly evaluate the risks in transporting raw materials with high hazard potential using our global guideline. This is based on the guidelines of the European Chemical Industry Council, CEFIC.

### Activities in external networks

We are actively involved in external networks, which quickly provide information and assistance in emergencies. These include the International Chemical Environmental (ICE) initiative and the German Transport Accident Information and Emergency Response System (TUIS), in which BASF plays a coordinating role. In 2015, we provided assistance to other companies in around 200 cases worldwide. We apply the experience we have gathered to set up similar systems in other countries: For example, in 2015 we were able to connect our site in India to just such a system.

For more, see [basf.com/distribution\\_safety](http://basf.com/distribution_safety) and [basf.com/emergency\\_response](http://basf.com/emergency_response)



# Production



We never compromise on safety. For occupational and process safety as well as health protection and corporate security, we rely on comprehensive preventive measures as well as on the involvement of all employees and contractors. Our global safety and security concepts serve to protect our employees, contractors and neighbors as well as to prevent property damage and protect information and company assets. In this way, we help prevent production outages and damage to the environment.

## Strategy

- New or updated goals
- Worldwide safety standards
- Enhancement of safety culture

We have set ourselves ambitious goals for safety and health protection. In 2015, we revised our goal for occupational safety, making it even more ambitious. We continue to pursue our health protection goal. We have furthermore defined a new goal for process safety.

In our guidelines and requirements, we stipulate globally mandatory standards for safety, security and health protection. A global network of experts supports us in their implementation through standardized processes. We regularly conduct audits on safety, security, health and environmental protection in order to monitor our performance. We especially promote safe conduct at work through systematic risk assessments and specific qualification measures.

Based on our corporate values, leaders serve as safety role models for our employees. Together, they contribute to the constant development of our safety culture.

## Occupational safety

- Expanded occupational safety goal
- Employees and contractors worldwide receive training on safe behavior
- Directive updated for contract manufacturing

In 2015, we expanded our goal for occupational safety. We want to reduce the worldwide lost-time injury rate per million working hours to at least 0.5 by 2025 (previous 2020 goal: 0.65). In order to achieve this ambitious goal, we rely on the further development of our global safety culture, the commitment of all employees, and clearly defined safety standards. In 2015, 1.4 work-related accidents per one million working hours occurred at BASF sites worldwide (2014: 1.5), of which 8% were related to chemicals. We conduct special training in this area in order to enhance our employees' qualifications. The work-related lost-time injury rate for contractors was 1.5 in 2015 (2014: 1.8).

Unfortunately, there were two fatal work-related accidents in 2015. In May, one employee of a contracting company succumbed to injuries sustained after falling from a scaffolding in Nanjing, China. In October, an employee in Ludwigshafen, Germany died from inhaling a low-oxygen gas mixture.

### 2025 Goal

Reduction of worldwide lost-time injury rate per one million working hours

≤0.5

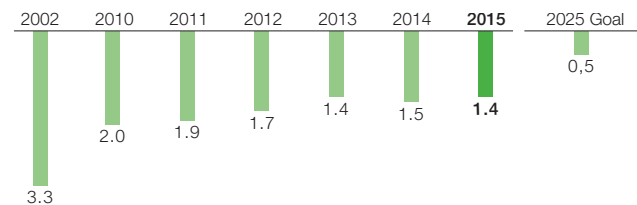
We revised our global directive for contract manufacturing in 2015, including the new definition of audit processes on compliance with stipulated standards on safety, security, health and environmental protection.

We bolstered our safety culture in 2015 through intensive exchange and a worldwide safety initiative – the Global Safety Days – involving over 700 activities that focused on key topics like risk assessment and business travel safety. Around 75,000 employees and contractors actively participated at over 400 sites.

Going beyond legally prescribed safety instructions, we provided more than 77,000 participants around the world with training on occupational safety in 2015. For example, we trained more than 13,000 participants at our “Safety Champions Training Center” at the Ludwigshafen site in order to promote safety-conscious behavior and prevent work-related accidents.

For more on occupational safety, see [basf.com/occupational\\_safety](http://basf.com/occupational_safety)

Lost-time injury rate per one million working hours





## Health protection

- 2015 focuses on nutrition
- Regular health promotion programs offered to employees

Our global health management serves to promote and maintain the health and productivity of our employees. This was supported by numerous emergency drills and health promotion measures in 2015.

We measure our performance in health protection using the Health Performance Index (HPI). The HPI comprises five components: confirmed occupational diseases, medical emergency drills, first aid training, preventive medicine and health promotion. Each component contributes a maximum of 0.2 to the total score. The highest possible score is 1.0. Our goal is to reach a value of more than 0.9 every year.

### Annual goal

**Health protection**  
Health Performance Index  
Maximum score 1.0

>0.9

With an HPI of 0.97, we were once again able to fulfill the ambitious goal of exceeding 0.9 each year (2014: 0.91). Our 2015 global employee health campaign centered on nutrition. Numerous offers and initiatives promoting good nutrition support our employees' health and performance, while making a contribution to BASF's voluntary commitment to the United Nations' Global Nutrition Compact. In 2016, the global health campaign will focus on heart attack and stroke prevention. We raise employee awareness of these topics through offers tailored toward specific target groups.

The BASF health checks form the foundation of our global health promotion program and are offered to employees at regular intervals.

For more on occupational medicine, health promotion campaigns and the HPI, see [basf.com/health\\_protection](http://basf.com/health_protection)

## Process safety

- New process safety goal
- Initiative begun to reduce process safety incidents
- Special training methods introduced

We have implemented a worldwide guideline for the safe construction and operation of our plants as well as the protection of our employees and the environment. Our safety strategy is based on prevention. That is why, when designing a new facility, we apply a five-step review system from conception to startup. It involves early consideration of the most important aspects of safety and protection of health and the environment, and monitors these in every stage of planning. We use a risk matrix to assess potential incident probability and impact, and determine the appropriate protective measures.

In order to constantly improve the safety of our production facilities worldwide, we regularly update the safety concepts in all of our plants. We review their implementation in ten-year intervals in plants with a medium to high hazard potential. The documentation of these safety reviews was standardized through software in 2014, and introduced all over the world in 2015. Moreover, we further continued to supervise the process safety management system in all regions. We completed the worldwide implementation of our requirements for explosion protection in 2015.

The number of Process Safety Incidents has served as an important key performance indicator since 2008, and is largely based on the definition set by the European Chemical Industry Council (CEFIC). This KPI mainly tracks the release of substances, in addition to fire and explosions. In 2015, we recorded 2.1 process safety incidents per one million working hours (2014: 2.2<sup>1</sup>). In order to constantly improve, we set ourselves the goal in 2015 of achieving a rate of 0.5 or below by 2025. To this end, we began a worldwide initiative focusing on plant maintenance, repair and operation. We perform a detailed investigation into every incident, analyzing root causes and using the findings to derive suitable measures to take.

### 2025 Goal

**Reduction of worldwide process safety incidents**  
per one million working hours

≤0.5

<sup>1</sup> Deviation from BASF Report 2014 (2.1) due to information that became known over the course of the year

To strengthen safety awareness, we developed new training methods, global recommendations for training measures in 2015 and instructed more than 19,000 participants that year.

 For more on process safety, see [basf.com/process\\_safety](http://basf.com/process_safety)

## Hazard prevention and corporate security

- Requirements implemented for emergency response and fire prevention
- SPIDER Emergency Response and Information Center Verbund enhanced in Europe
- Online training introduced for information protection

In order to ensure uniformly high standards around the world for safety, security, health and environmental protection, we implemented our requirements for emergency response planning and fire prevention in the BASF Group in 2015. To be prepared for a potential incident in our production plants, we work with specific emergency response plans that involve – depending on the situation – partners and suppliers as well as cities, communities and neighboring companies.

We regularly check our emergency systems and drill procedures with employees, contractors and local authorities. Through 224 drills and simulations in 2015, we trained the participants in our emergency response measures, such as preventive fire protection.

In 2015, we enhanced our SPIDER Emergency Response and Information Center Verbund in Europe by improving expert involvement. This enables our specialists from the site fire department, emergency medical team, site security and environmental protection around Europe to work together even more quickly and reliably across different sites. Our central emergency response supports local emergency response units around the world and around the clock. We also have been using the KATWARN system at the Ludwigshafen site since 2015, an app-based warning system that serves as an additional communication channel to inform site employees of dangerous situations.

Through audits and reviews, we monitor the implementation of measures for the comprehensive protection of our employees and the company – for example, from loss of knowledge – as well as for the worldwide protection of our sites against third-party interference. All of our security personnel have been instructed on aspects of human rights related to site security, such as the right to liberty and security of person. We also require all contractors involved in this area to comply with human rights and we conduct regular inspections. As part of investment projects, we are performing comprehensive analyses of potential risks. In 2015, we standardized the use of security services even more across our European sites in order to increase effectiveness and efficiency. Business travelers, transferees, and local employees in countries with elevated security risks are informed about appropriate protection measures and individually counseled where necessary.

Due to the increasing risks associated with the use of information technology, we started a global campaign for employees to even better protect our company knowledge. This includes a new online platform that educates employees as to how they can use available information and communications technology in a secure manner. Our worldwide network of information protection officers comprises more than 600 employees. They support the implementation of our globally mandatory requirements and conduct seminars on secure behaviors. We provided information protection instruction to more than 3,000 participants in 2015. At the end of 2015, we began the introduction of an online training module for information and knowledge protection that is mandatory for all employees.

 For more on corporate security, see [basf.com/corporate-security](http://basf.com/corporate-security)

 For more on emergency response, see [basf.com/emergency\\_response](http://basf.com/emergency_response)



## Product stewardship



**We review the safety of our products from research to production, all the way to our customers' use of the products. We work continually to ensure that our products pose no risk to people or the environment when they are used responsibly and in the manner intended.**

### Strategy

- **Global directives with uniformly high standards for product stewardship**

We ensure uniformly high standards for product stewardship worldwide and our voluntary initiatives go beyond legal requirements. We monitor the compliance of our guidelines with regular audits.

We provide extensive information on our chemical sales products to our customers with safety data sheets in more than 30 languages. This is achieved with the help of a global database in which we maintain and evaluate continuously updated environmental, health and safety data for our substances and products. Our global emergency hotline network provides information around the clock.

We offer our customers training in the safe use of our products and keep them informed early on of any changes in regulations. For example, we were one of the first companies to offer product-specific information and solutions to pharmaceutical manufacturers on the topic of metallic contaminants, as well as web-based consultation to customers in the pharmaceutical industry and authorities. In the Crop Protection division, we provide special safety training to farmers. We expanded our stewardship program for banana farmers to Latin America, China and the Philippines, where on-site BASF experts show how crop protection products can be used and stored in an effective and safe manner for people and the environment.

With an eye on consumer protection criteria, we also work continuously with our customers on the optimization of our products. Furthermore, we use our Eco-Efficiency Analysis to advise our customers on the evaluation of product risks and support them in improving the carbon footprint of their products.

With our global risk assessment goal, we are supporting the implementation of initiatives such as the Global Product Strategy (GPS) of the International Council of Chemical Associations (ICCA). GPS is establishing worldwide standards and best practices to improve the safe management of chemical substances.

In addition, we are also involved in workshops and training seminars in developing countries and emerging markets. In 2015, for example, we conducted training sessions for chemical industry representatives on GPS in China and Thailand. In order to facilitate public access to information, we are participating in the setup of an ICCA online portal that provides more than 4,600 GPS safety summaries.

For more on GPS, see [basf.com/en/gps](http://basf.com/en/gps)

### Global goal

By 2020, we will conduct risk assessments for all substances and mixtures BASF sells worldwide in quantities of more than one metric ton per year. We already reached 67.8% of this goal in 2015 (2014: 61.4%). The risk associated with using a substance is determined by the combination of its hazardous properties and its potential exposure to people and the environment.

#### 2020 Goal

**Risk assessment of products**  
that we sell in quantities of more  
than one metric ton per year

>99%

### REACH and other legal requirements

- **Third registration phase of REACH in progress**

We are working continuously on registering substances produced in annual volumes between one and one hundred metric tons for the third phase of the E.U. chemicals regulation, REACH. We have already registered over 200 substances to this end. The registration phase should be completed by May of 2018. At the same time, we also constantly update the existing registration dossiers and support the relevant E.U. member state authorities in evaluating an increasing number of substances. When it comes to REACH, we maintain close contact with our customers and suppliers.

Another contribution BASF makes to international chemical safety is through our support of the United Nations' initiative to implement a Globally Harmonized System of Classification and Labeling of Chemicals. This has already been implemented in nearly every country in the world. It was also made mandatory in the United States in the middle of 2015, which was the reason we reclassified 36,000 products there.

For more on auditing of suppliers, see page 95

## Environmental and toxicological testing

### ■ Use of alternative and complementary methods for animal studies

Before launching products on the market, we subject them to a variety of environmental and toxicological testing. We apply state-of-the-art knowledge in the research and development of our products. We only conduct animal studies when they are required by law. In some cases, animal studies are stipulated by REACH and other national legislation outside the European Union in order to obtain more information on the properties and effects of chemical products.

We adhere to the specifications laid down by the German Animal Welfare Act as well as the requirements of the Association for Assessment and Accreditation of Laboratory Animal Care – the highest standard for laboratory animals in the world. We are continually developing and optimizing alternative and complementary methods, and we put these into practice wherever it is possible and approved by the authorities. BASF spent €2.7 million for this purpose in 2015. We use alternative and complementary methods in more than a third of our tests. Currently, 30 alternative methods are being used in our labs and another 12 are in the development stage. One focus area of our research in 2015 and subsequent years is the development of alternative methods for testing the potential of substances that negatively affect organisms' growth and development.

In 2015, our Experimental Toxicology and Ecotoxicology department received, together with partners, a grant to conduct one of the largest European collaborative projects for alternative methods. The project aims to develop alternative methods to the point that chemical risk assessments can be efficiently conducted with the least amount of animal testing possible.

🖨 For more on alternative methods, see [basf.com/alternative\\_methods](http://basf.com/alternative_methods)

## Management of new technologies

### ■ Continual safety research on nano- and biotechnology

Technologies such as nanotechnology or biotechnology offer solutions for key societal challenges – for example, in the areas of climate protection or health and nutrition.

We developed a “Nanotechnology Code of Conduct” that stipulates the safe handling of nanomaterials. We are constantly expanding our knowledge of nanomaterial safety. Over the past years, we have conducted more than 230 toxicological and ecotoxicological studies and participated in over 30 different projects related to the safety of nanomaterials. We published the results in 71 scientific articles. One important finding is that toxicity is determined not by the size of the particles but by the intrinsic properties of the substance.

In 2015, we published a framework for the specific testing of nanomaterials together with the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC). We are working with the European Chemicals Agency (ECHA), the OECD and national authorities on its further development. In an E.U. project, we are collaborating with partners from science, industry and the authorities to develop an approach for the analytical identification of nanomaterials.

In the use of biotechnology, we follow the code of conduct of EuropaBio, the European association for biotechnology industries. We constantly improve our product safety activities in the field of biotechnology in order to effectively minimize potential risks and ensure that all standards and national laws are met. Our internal risk management is based on the protection of people, animals and the environment. To monitor the risks of working with biotechnology, we implemented a system that ensures compliance with standards and transparent processes at BASF.

🖨 For more on nanotechnology and the Nanotechnology Code of Conduct, see [basf.com/nanotechnology](http://basf.com/nanotechnology)

For more on biotechnology, see [basf.com/biotechnology](http://basf.com/biotechnology)



## Energy and climate protection



As an energy-intensive company, we are committed to energy efficiency and global climate protection. We want to reduce emissions along the value chain and utilize, for example, efficient technologies for generating steam and electricity, energy-efficient production processes, and comprehensive energy management. Our climate protection products make an important contribution toward helping our customers avoid emissions.

### Strategy

- We are committed to energy efficiency and global climate protection along the value chain

We want to reduce greenhouse gas emissions in our production and along the entire value chain. To this end, we have thoroughly analyzed the greenhouse gas emissions from our production in the past few years and implemented comprehensive reduction measures. This is how, for example, we have been able to significantly reduce nitrous oxide emissions since 1997.

Comparisons with European emissions trading benchmarks show that our greenhouse gas-intensive chemical plants operate at above-average efficiency. To supply our production sites with energy, we rely on highly efficient combined heat and power plants with gas and steam turbines, and on the use of heat released by production processes. Around 50% of BASF Group emissions in 2015 resulted from steam and electricity generation in our power plants as well as in our energy suppliers' power plants.

Our success also depends on the long-term security and competitiveness of our energy supplies. Furthermore, we are committed to energy management that helps us analyze and continue to improve the energy efficiency of our plants.

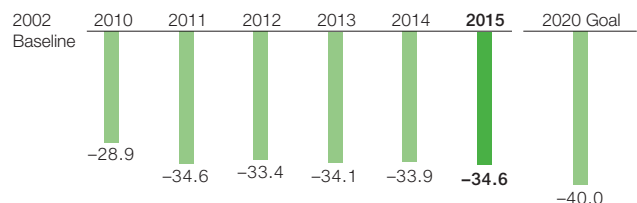
We offer our customers solutions that help prevent greenhouse gas emissions and improve energy and resource efficiency. About half of our total annual research spending goes toward the development of these products and the optimization of our processes.

Our climate protection activities are based on comprehensive emissions controlling. We report on greenhouse gas emissions in accordance with the Greenhouse Gas Protocol Standard, as well as the sector-specific standard for the chemical industry. We applied the new Scope 2 standard for the first time in 2015. According to CDP, an international organization that analyzes companies' climate protection data, BASF is among the top companies in the world in terms of transparency and completeness in climate protection reporting. In reporting to CDP, our experts perform an annual analysis of the opportunities and risks that climate change poses for BASF.

We also advocate economically efficient and environmentally effective climate protection by supporting endeavors to this effect. For example, we joined the U.N.'s Caring for Climate initiative in 2015 – with over 400 companies from 60 countries, this is the largest global business movement in the search for climate change solutions. BASF also advocates the Paris Agreement on climate protection and a global carbon price.

For more on climate protection, see [basf.com/climate\\_protection](http://basf.com/climate_protection)

**Reduction of greenhouse gas emissions per metric ton of sales product in BASF operations excluding Oil & Gas<sup>1,2</sup> (in %)**



<sup>1</sup> The figures for the 2010 and 2011 business years were not adjusted to the scope of consolidation as per the new accounting and reporting standards IFRS 10 and 11. For more information on our data collection methods, see page 6.

<sup>2</sup> The figures for the 2012 business year and earlier were not adjusted to the currently applied factors for global warming potential. For more information on our data collection methods, see page 106.

**BASF Group's greenhouse gas emissions according to the Greenhouse Gas Protocol<sup>1</sup>** (1,000 metric tons of CO<sub>2</sub> equivalents)

BASF operations including Oil & Gas	2002	2014	2015
Scope 1 <sup>2</sup>			
CO <sub>2</sub> (carbon dioxide)	14,634	16,774	16,496
N <sub>2</sub> O (nitrous oxide)	6,407	669	600
CH <sub>4</sub> (methane)	244	70	88
HFC (hydrofluorocarbons)	61	99	119
SF <sub>6</sub> (sulfur hexafluoride)	0	0	1
Scope 2 <sup>3</sup>			
CO <sub>2</sub>	5,243	3,911	3,795
<b>Total</b>	<b>26,589</b>	<b>21,523</b>	<b>21,099</b>
<b>Sale of energy to third parties (Scope 1)<sup>4</sup></b>			
CO <sub>2</sub>	347	838	1,071
<b>Total</b>	<b>26,936</b>	<b>22,361</b>	<b>22,170</b>

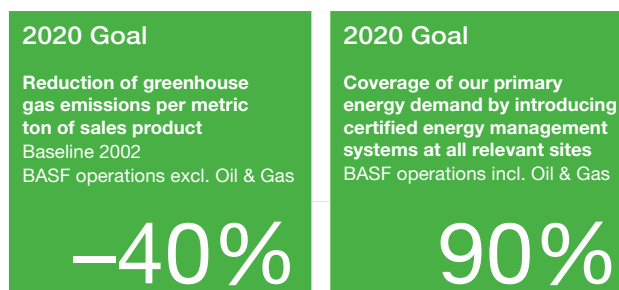
<sup>1</sup> BASF reports separately on direct and indirect emissions from the purchase of energy. Scope 1 emissions encompass both direct emissions from production and generation of steam and electricity, as well as direct emissions from the generation of steam and electricity for sale. Scope 2 emissions comprise indirect emissions from the purchase of energy for BASF's use.  
<sup>2</sup> Emissions of N<sub>2</sub>O, CH<sub>4</sub>, HFC and SF<sub>6</sub> have been translated into CO<sub>2</sub> emissions using the Global Warming Potential, or GWP, factor. GWP factors are based on the Intergovernmental Panel on Climate Change (IPCC) 1995 (2002 emissions) and IPCC 2007, errata table 2012 (2014 and 2015 emissions). HFC (hydrofluorocarbons) are calculated using the GWP factors of the individual components.  
<sup>3</sup> Location-based approach. Information on the calculation of market-based Scope 2 emissions can be found in the GRI and Global Compact Index; see basf.com/en/gri\_gc  
<sup>4</sup> Includes sale to BASF Group companies; as a result, emissions reported under Scope 2 can be reported again in some cases.

**Global goals**

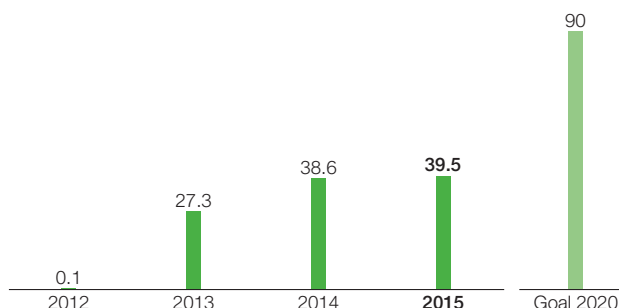
- Specific greenhouse gas emissions reduced
- New goal for energy management system

We aim to reduce our greenhouse gas emissions per metric ton of sales product by 40% by 2020, compared with baseline 2002. In 2015, we achieved a reduction of 34.6% (2014: reduction of 33.9%). Since 1990, we have been able to lower our overall greenhouse gas emissions from BASF operations (excluding Oil & Gas) by 49.8% and even reduce specific emissions by 74.4%.

We set ourselves a new energy efficiency goal in 2015 covering both the chemicals and the oil and gas businesses. By 2020, we want to have introduced certified energy management systems (DIN EN ISO 50001) at all relevant production sites<sup>1</sup>. Taken together, this represents 90% of BASF's primary energy demand. This is one of the ways in which we intend to identify and carry out improvements in energy efficiency, reducing not only greenhouse gas emissions and saving valuable energy resources, but also increasing the BASF Group's competitive ability. In 2015, we were able to complete the ISO 50001 energy management system certification of two additional sites in Germany. This brings the current total to 27 certified sites worldwide, representing 39.5% of our primary energy demand.



**Introduction of certified energy management systems (ISO 50001) at BASF Group sites worldwide, in terms of primary energy demand (in %)**



<sup>1</sup> The selection of relevant sites is determined by the amount of primary energy used and local energy prices.



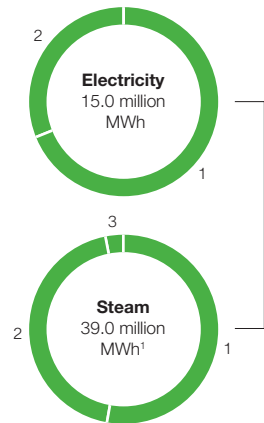
**Energy supply of the BASF Group 2015**

**Electricity supply**

1	Internally generated	69%
2	Purchased	31%

**Steam supply**

1	Internally generated	53%
2	Waste heat	44%
3	Purchased	3%



**Fossil and residual fuels used for power generation in power plants of the BASF Group**

83.0%	<b>Natural gas</b> 30.8 million MWh
0.6%	<b>Heating oil</b> 0.2 million MWh
2.7%	<b>Coal</b> 1.0 million MWh
13.7%	<b>Residual fuels</b> 5.1 million MWh
<b>Total:</b>	37.1 million MWh

<sup>1</sup> Conversion factor: 0.75 MWh per metric ton of steam

**Energy supply and efficiency**

■ **Verbund system as important component of our energy efficiency strategy**

Gas and steam turbines in our combined heat and power plants enable us to fulfill around 70% of the electricity demand of the BASF Group. Compared with separate methods of generating steam and electricity, we saved 13.5 million MWh of fossil fuels and prevented 2.7 million metric tons of carbon emissions in 2015. The Verbund system is an important component of our energy efficiency strategy: Waste heat from one plant's production process is used as energy in other plants. In this way, we saved around 17.6 million MWh in 2015, which corresponds to a savings of 3.5 million metric tons' worth of carbon emissions. With combined power and steam generation as well as our continuously enhanced Energy Verbund, we were thus able to prevent a total of 6.2 million metric tons of carbon emissions in 2015.

We were able to further optimize the resource and energy consumption of our production in numerous projects around the world in 2015. Various process improvements led to steam and electricity savings. At the Ludwigshafen site, for example, we implemented an integrated steam network between the ethanolamine facility and the Ultrason® plant, making use of significant amounts of heat. The startup of the new, gas-based combined heat and power plant at the Münster site of BASF Coatings additionally supported our endeavors toward efficient and environmentally friendly energy sourcing practices.

We also rely on locally available energy sources for energy supply at our sites. Especially in the growing Asian market, we and our energy suppliers also utilize coal as an energy source since the more climate-friendly natural gas is not available in sufficient quantities at competitive prices.

We are exploring the use of renewable energies. These can only become a permanent part of our energy mix if they are competitive in terms of supply security and cost. Our research also contributes to increasing the efficiency of technologies for the use of renewable energy sources. For example, Deutsche Nanoschicht GmbH – a 100% subsidiary of BASF – has developed an innovative method for producing high-temperature superconductors in a more efficient and environmentally friendly manner. Deutsche Nanoschicht will start operations at a further pilot plant at its Rheinbach, Germany, site in 2016. In cooperation with the Karlsruhe Institute of Technology, high-temperature superconductors are to be optimized for various applications in energy technology.

**Key indicators for energy and climate protection in BASF operations excluding Oil & Gas**

	Baseline 2002 <sup>1</sup>	2014	2015
Greenhouse gas emissions <sup>2</sup> (million metric tons of CO <sub>2</sub> equivalents)	24.713	20.550	20.133
Specific greenhouse gas emissions (metric tons of CO <sub>2</sub> equivalents per ton of sales product)	0.897	0.593	0.587
Primary energy demand <sup>3</sup> (million MWh)	55.759	58.962	57.262
Energy efficiency (kilograms of sales product per MWh)	494	588	599

<sup>1</sup> The values for baseline 2002 were not adjusted to reflect the currently applied global warming potential factors.

<sup>2</sup> Scope 1 and Scope 2 (location-based) according to the GHG Protocol Standard, excluding emissions from the generation of steam and electricity for sale to third parties; information on market-based Scope 2 emissions can be found in the GRI and Global Compact Index; see basf.com/en/gri\_gc

<sup>3</sup> Primary energy used in BASF's plants as well as in the plants of our energy suppliers to cover energy demand for production processes

**Corporate carbon footprint and climate protection products**

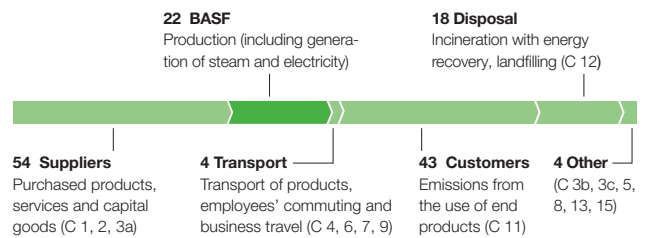
- Reporting on greenhouse gas emissions along the entire value chain
- Customers' use of climate protection products sold in 2015 avoids 530 million metric tons of CO<sub>2</sub> equivalents

BASF has been publishing a comprehensive corporate carbon footprint since as early as 2008. This reports on all emissions along the value chain and shows the volume of emissions prevented through the use of our climate protection products. We plan our climate protection activities along the value chain based on our corporate carbon footprint.

Through various measures to reduce our raw material and energy requirements, the emission of greenhouse gases associated with producing the raw materials was decreased by a total of around 160,000 metric tons in 2015.

We completed the systematic evaluation of our product portfolio in terms of sustainability considerations in 2015. This included identifying solutions whose application makes a positive contribution in terms of climate protection and energy. Dubbed "Accelerator" products, these are what we focus on when referring to climate protection products. They help us offer solutions to our customers to avoid greenhouse gas emissions over their entire lifecycle as compared with reference products. One example is our Kerapur® line of fuel additives, which reduces fuel consumption by optimizing combustion in comparison with conventional fuels.

**Greenhouse gas emissions along the BASF value chain in 2015<sup>1</sup>**  
(in million metric tons of CO<sub>2</sub> equivalents)



<sup>1</sup> According to Greenhouse Gas Protocol, Scope 1, 2 and 3; categories within Scope 3 are shown in parentheses

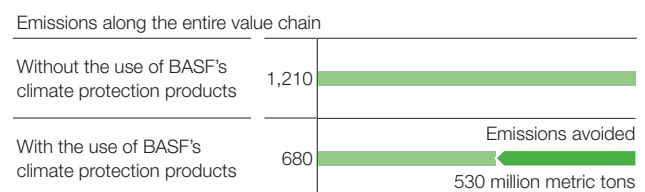
An analysis of 25 climate protection product groups revealed that customers' use of products sold in 2015 helped to avoid 530 million metric tons of CO<sub>2</sub> equivalents. Every product makes an individual contribution in the value chain of customer solutions. Value chains are assessed in terms of BASF's economic share of the respective customer solution. On average, 11% of the emissions avoided were attributable to BASF in 2015. The calculation of avoided greenhouse gas emissions was based on the chemical industry standard of the International Council of Chemical Associations (ICCA) and the World Business Council for Sustainable Development (WBCSD).

For more on our emissions reporting, see [basf.com/corporate\\_carbon\\_footprint](http://basf.com/corporate_carbon_footprint)

For more on the sustainability analysis of our product portfolio, see page 32 onward



**Prevention of greenhouse gas emissions through the use of BASF products** (in million metric tons of CO<sub>2</sub> equivalents)



# Water



**Water is of fundamental importance in chemical production. It is used as a coolant, solvent and cleaning agent, as well as to make our products. We are committed to its responsible use in our production sites' water catchment areas, and along the entire value chain. We have set ourselves a global goal for sustainable water management.**

## Strategy

- **BASF products contribute to sustainable water management**

We aim to use water as sparingly as possible and further reduce emissions to water. To do so, we have set out a Group directive with globally applicable standards. We are exploring measures for implementing sustainable water management, especially at production sites in water stress areas. One of our aims here is to identify savings potential in order to use as little water as possible, particularly in water stress areas. We consider this topic from all aspects, including societal implications.

We offer our customers solutions that help purify water, use it more efficiently and reduce pollution. Seawater desalination plants make an important contribution to supplying the world's population with water. The Middle East's dry climate, for example, makes the region particularly dependent on this technology. The largest desalination plant in the United Arab Emirates is located in Jebel Ali. BASF supplies it with more than 3,000 metric tons of Sokalan® PM 15l per year; this product prevents the buildup of deposits, enabling the plant to generate up to 2 million cubic meters of desalinated water each day.

In order to ensure transparency in our reporting on water, we once again took part in CDP reporting in 2015 and received a very good score. According to CDP, this was particularly because of our implementing a range of best-practice measures in water management, as well as our risk minimization – both in our production and beyond it.

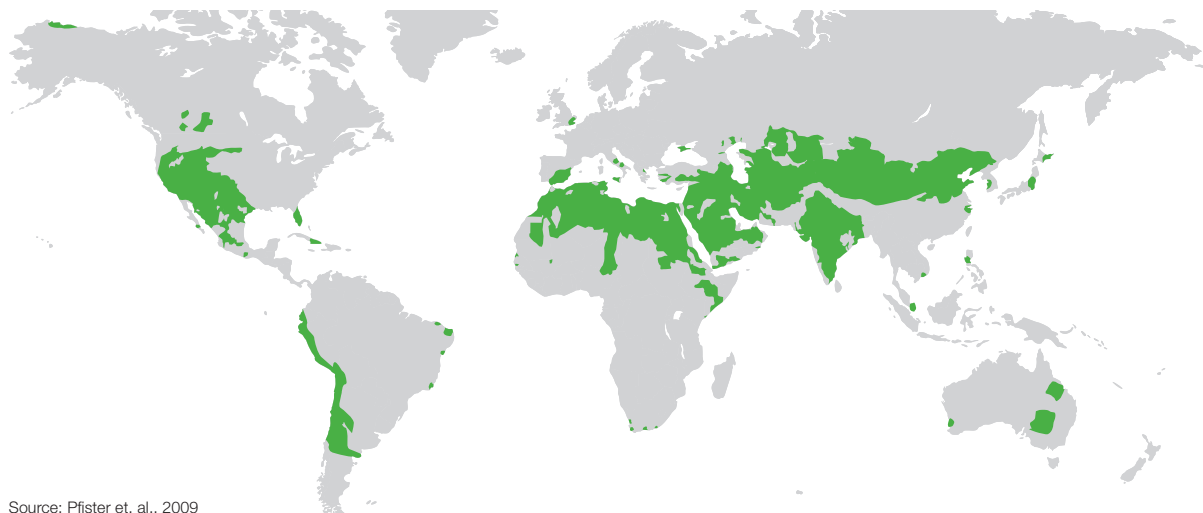
For more on the CDP water survey, see [basf.com/en/cdp](http://basf.com/en/cdp)

## Global goal

- **Goals achieved for reducing emissions**
- **Goal expanded for sustainable water management**

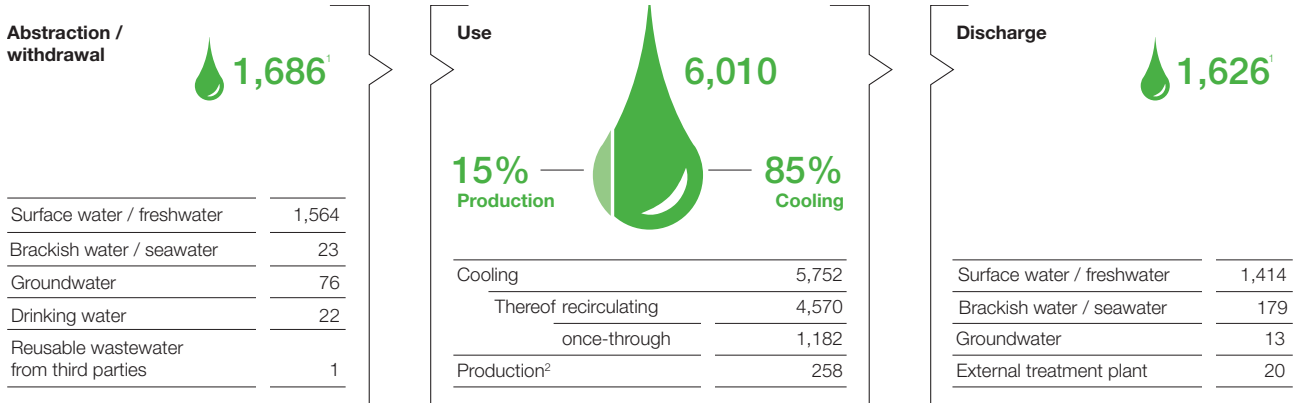
We have already achieved our 2020 goal of decreasing emissions to water of organic substances and nitrogen by 80% and of heavy metals by 60% compared with baseline 2002. In 2015, we reached 28.2% (2014: 26.3%) of our goal to halve the withdrawal of drinking water for production purposes from 2010 to 2020. We integrated this target into our goal for sustainable water management in 2015. We are analyzing water management practices at relevant production sites with respect to sustainability criteria. Our aim to establish sustainable water management at all sites in water stress areas was expanded in 2015: We now also want to introduce sustainable water management at all Verbund sites by 2025. This will cover 92% of BASF's entire water abstraction. We achieved 36.2% of this goal in 2015, and are pursuing it through the application of the European Water Stewardship (EWS) standard. After introducing the standard at our European sites in 2013, we furthered its implementation in China and North and South America in 2015. This once again earned gold-level certification in 2015 for our production site in Tarragona, Spain, after an external audit.

## Water stress areas around the world



Source: Pfister et. al., 2009

**Water in the BASF Group 2015** (million cubic meters per year)



<sup>1</sup> The difference between the volume of water drawn and the volume discharged is primarily attributable to evaporation losses during closed-circuit cooling.  
<sup>2</sup> Total from production processes, graywater, rinsing and cleaning in production

Around 22% of our production sites were located in water stress areas in 2015, and around 1% of BASF's total water supply was abstracted from these areas.

**2025 Goal**

Introduction of sustainable water management at all production sites in water stress areas and at all Verbund sites  
 BASF operations excl. Oil & Gas

**100%**

**Further reduction of emissions**

■ **Reduction of emissions to water achieved**

A total of around 207 million cubic meters of wastewater were discharged from BASF production sites in 2015 (2014: 194 million cubic meters). Emissions of nitrogen to water amounted to 3,000 metric tons (2014: 3,200 metric tons). We were able to make this improvement by optimizing processes and exchanging products, for example. Around 17,300 metric tons of organic substances were emitted in wastewater (2014: 18,700 metric tons). Our wastewater contained 25 metric tons of heavy metals (2014: 21.5 metric tons). Phosphorus emissions amounted to 460 metric tons (2014: 341 metric tons).

Our wastewater is treated through different methods depending on the type and degree of contamination – including biological processes, oxidation, membrane technologies, precipitation or adsorption.

In order to prevent unanticipated emissions and the pollution of surface or groundwater, we create water protection strategies for our production sites. This is mandatory for all production plants as part of the Responsible Care initiative. The wastewater protection plans involve evaluating wastewater in terms of risk and drawing up suitable monitoring approaches. We use audits to check that these measures are being implemented and complied with.

**Water use**

■ **Using water responsibly**

We recirculate water as much as is feasible in order to withdraw less from supply sources. Our larger sites have recooling plants that allow water to be reused several times and that reduce the temperature of used cooling water before it is discharged back into a body of water.

The supply, treatment, transportation and recooling of water is associated with a high energy demand. We employ various means in our efforts to keep this as low as possible. We are constantly working to optimize our energy consumption and the amount of water we use, and to adapt to the needs of our business and the environment.

For more, see [basf.com/water](http://basf.com/water)



## Air and soil



We want to further reduce emissions to air from our production, protect the soil and prevent waste. We have set ourselves standards for doing so in a global directive. If no recovery options are available, we dispose of waste in a correct and environmentally responsible manner.

### Strategy

- Raw Material Verbund helps prevent and reduce waste
- Professional disposal of hazardous waste

Regular monitoring of our emissions to air is a part of environmental management at BASF. Aside from greenhouse gases, we also measure emissions of other pollutants into the atmosphere. Our reporting does not take into account air pollutant emissions from oil and gas operations due to their substantial fluctuation during exploration phases.

Our Raw Material Verbund helps us prevent and reduce waste. We regularly carry out audits to inspect external waste management companies, ensuring that our hazardous waste in particular is properly disposed of. In this way, we are also contributing to preventive soil protection and keeping today's waste from becoming tomorrow's contamination.

### Emissions to air

#### ■ Further reduction of emissions

We were able to reduce absolute emissions of air pollutants from our chemical plants to 28,585 metric tons in 2015. This is a decrease of 66.6%, which means that our goal of a 70% reduction worldwide from 2002 to 2020 has almost been achieved. Emissions of ozone-depleting substances as defined by the Montreal Protocol totaled 23 metric tons in 2015 (2014: 36 metric tons). Emissions of heavy metals amounted to 4 metric tons (2014: 4 metric tons).

We were able to reduce emissions of sulfur oxides in 2015, particularly at our site in Hannibal, Missouri: There, we exchanged coal-fired boilers for gas-powered burners, saving around 1,000 metric tons of sulfur oxide.

Our product portfolio contains a variety of catalysts used in the automotive sector and in industry to reduce the emission of air pollutants. BASF's Camet® series of CO catalysts, for example, decreases the amount of carbon monoxide released by gas turbine plants in partial-load mode. As a complement to the use of renewable energies, this now environmentally friendly partial-load mode will become increasingly necessary in the future.

#### Emissions to air (in metric tons)

Air pollutants from BASF operations excluding Oil & Gas

	2015	2014
CO (carbon monoxide)	3,813	4,635
NO <sub>x</sub> (total NO <sub>2</sub> [nitrogen dioxide] + NO [nitrogen monoxide], calculated as NO <sub>2</sub> )	11,058	11,697
NM VOC (nonmethane volatile organic compounds)	5,140	4,881
SO <sub>x</sub> (total various sulfur oxides)	3,028	4,506
Dust	3,330	3,456
NH <sub>3</sub> / other (NH <sub>3</sub> [ammonia] and other inorganic substances)	2,216	2,321
<b>Total</b>	<b>28,585</b>	<b>31,505</b>

## Management of waste and contaminated sites

- Reduction of total waste volume
- Systematic processing of contaminated sites ensured

We regularly explore possibilities for preventing waste. If waste is unavoidable, we perform an analysis for recycling or energy recovery. Total waste volume declined slightly in 2015 (–2.4%).

We develop remediation solutions in order to combine nature conservation, climate protection concerns, costs, and social responsibility. This means making decisions on a case-by-case basis, founded on the legal framework and current technological possibilities. We set out global standards for our approach to contaminated site management. A worldwide network of experts ensures their proper implementation.

We have been documenting relevant sites in a contaminated site database since 2013. Ongoing remediation work around the world continued on schedule and planning was concluded on future landfill remediation projects.



### Waste management in the BASF Group (in million metric tons)

	2015	2014
<b>Total waste generation<sup>1</sup></b>	<b>2.02</b>	<b>2.07</b>
Thereof from oil and gas exploration	0.05	0.05
<b>Waste recovered</b>	<b>0.68</b>	<b>0.71</b>
Recycled	0.27	0.30
Thermally recovered	0.41	0.41
<b>Waste disposed of</b>	<b>1.34</b>	<b>1.36</b>
In underground landfills	0.14	0.12
In surface landfills	0.48	0.52
Through incineration	0.72	0.72
<b>Classification of waste for disposal<sup>2</sup></b>		
Nonhazardous waste	0.44	0.42
Hazardous waste	0.90	0.94
Transported hazardous waste	0.27	0.23

<sup>1</sup> Comprises all production waste and hazardous waste from construction activities

<sup>2</sup> The classification of waste into hazardous and nonhazardous waste is performed according to local regulations.



# Forecast

## Opportunities and risks report

<h3>Opportunities</h3> <p>Potential successes that exceed our defined goals</p>	<h3>Risks</h3> <p>Events that can negatively impact the achievement of our goals</p>	<h3>Risk management</h3> <p>Identifying opportunities and risks as early as possible and planning effective courses of action</p>
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The goal of BASF's risk management is to identify and evaluate opportunities and risks as early as possible and to take appropriate measures in order to seize opportunities and limit business losses. The aim here is to avoid risks that pose a threat to BASF's continued existence and to make improved managerial decisions to create lasting value. We understand risk to be any event that can negatively impact the achievement of our short-term operational or long-term strategic goals. We define opportunities as possible successes that exceed our defined goals.

In order to effectively measure and manage identified opportunities and risks, we quantify these in terms of probability and economic impact in the event they occur. We use statistical methods to aggregate opportunities and risks into risk factors. This way, we achieve an overall view of opportunities and risks at a portfolio level, allowing us to take effective measures for risk management.

### Overall assessment

- Significant risks and opportunities arise from overall economic developments and volatility in exchange rates and margins
- No threat to continued existence of BASF

We expect the global economy to continue to grow in the next two years. We continue to see significant risks in a considerable slowdown of the Chinese economy. Such a development would negatively impact demand for intermediate goods and investment goods, and affect emerging markets that export raw materials as well as the advanced economies. Any escalation of geopolitical conflicts also poses risks to the global economy. Important opportunities and risks for our earnings are also associated with uncertainty regarding growth in Europe, the development of key customer industries, and volatility in foreign currency exchange rates and margins.

### Potential short-term effects on EBIT of key opportunity and risk factors subsequent to measures taken<sup>1</sup>

Possible variations related to:	Outlook – 2016 +	
<b>Business environment and sector</b>		
Market growth	■ ■ ■ ■ ■	■ ■ ■ ■ ■
Margins	□ ■ ■ ■ ■	■ ■ ■ ■ ■
Competition	□ □ ■ ■ ■	■ □ □ □ □
Regulation/policy	□ □ ■ ■ ■	■ □ □ □ □
<b>Company-specific opportunities and risks</b>		
Purchasing/supply chain	□ □ □ ■ ■	■ □ □ □ □
Investments/production	□ □ ■ ■ ■	■ □ □ □ □
Personnel	□ □ □ ■ ■	■ □ □ □ □
Acquisitions/cooperations	□ □ ■ ■ ■	■ ■ □ □ □
Information technology	□ □ □ ■ ■	■ □ □ □ □
Law	□ □ ■ ■ ■	■ □ □ □ □
<b>Finance</b>		
Exchange rate volatility	■ ■ ■ ■ ■	■ ■ ■ ■ ■
Other financial opportunities and risks	□ □ □ ■ ■	■ □ □ □ □

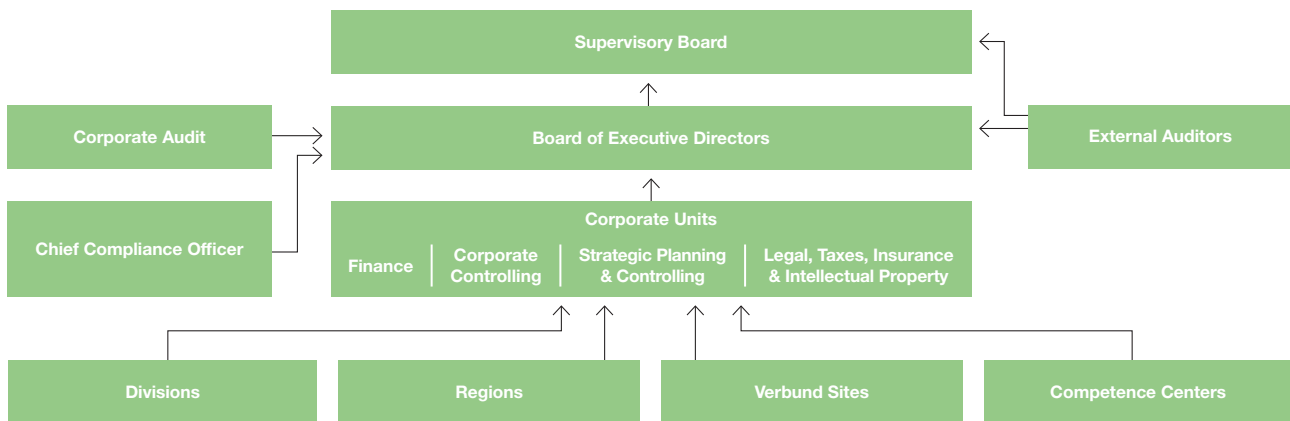
□ □ □ ■ < €100 million  
 □ □ ■ ■ ≥ €100 million < €500 million  
 □ ■ ■ ■ ≥ €500 million < €1,000 million  
 ■ ■ ■ ■ ≥ €1,000 million < €1,500 million

<sup>1</sup> Using a 95% confidence interval per risk factor based on planned values; summation is not permissible.

According to our assessment, there continue to be no significant individual risks that pose a threat to the continued existence of the BASF Group. The same applies to the sum of individual risks, even in the case of another global economic crisis.

Ultimately, however, residual risks remain in all entrepreneurial activities which even comprehensive risk management cannot exclude.

### Organization of BASF Group's risk management



### Risk management process

- Integrated process for identification, assessment and reporting
- Decentralized management of specific opportunities and risks
- Aggregation at a Group level

The BASF Group's risk management process is based on the international risk management standard COSO II Enterprise Risk Management – Integrated Framework (2004), and has the following key features:

#### Organization and responsibilities

- Risk management is the responsibility of the Board of Executive Directors, which also determines the processes for approving investments, acquisitions and divestitures.
- The Board of Executive Directors is supported by the corporate units Finance; Corporate Controlling; Strategic Planning & Controlling; Legal, Taxes, Insurance & Intellectual Property; and the Chief Compliance Officer. They coordinate the risk management process at a Group level and provide the structure and appropriate methodology. Opportunity and risk management is thus integrated into the strategy, planning and budgeting processes.
- A network of risk managers in the business and corporate units advances the implementation of appropriate risk management practices in daily operations.
- The management of specific opportunities and risks is largely delegated to the business units and is steered at a local level. Risks relating to exchange rates and raw material prices are an exception. In this case, there is an initial consolidation at a Group-wide level before derivative hedging instruments, for example, are used.
- BASF's Chief Compliance Officer (CCO) manages the implementation of our Compliance Management System, supported by additional compliance officers worldwide. The CCO regularly reports to the Board of Executive Directors on

progress in the program's implementation as well as on any significant results. Furthermore, the CCO provides a status report to the Supervisory Board's Audit Committee in at least one of its meetings each year, including any major developments. In the event of significant incidents, the Audit Committee is immediately informed by the Board of Executive Directors.


- The internal auditing unit (Corporate Audit) is responsible for regularly auditing the risk management system established by the Board of Executive Directors in accordance with Section 91(2) of the German Stock Corporation Act. Furthermore, as part of its monitoring of the Board of Executive Directors, the Supervisory Board considers the effectiveness of the risk management system. The suitability of the early detection system we set up for risks is evaluated by our external auditor.

#### Instruments

- The Risk Management Process Manual, applicable throughout the Group, forms the framework for risk management and is implemented by the business units according to their particular business conditions.
- A catalog of opportunity and risk categories helps to identify all relevant opportunities and risks as comprehensively as possible.
- We use standardized evaluation and reporting tools for the identification and assessment of risks. The aggregation of opportunities, risks and sensitivities at the business and Group level using a Monte Carlo simulation helps us to identify effects and trends across the company.
- Company management is informed about operational opportunities and risks (observation period of up to one year) in the monthly management report produced by the Corporate Controlling unit. In addition, the corporate units Corporate Controlling and Finance provide information twice a year about the aggregated opportunity/risk exposure of the BASF Group. Furthermore, if a new individual risk is identified which bears reputational risks or has a more than

€10 million impact on earnings, it must be immediately reported.

- As part of our strategy development, the Strategic Planning & Controlling unit conducts strategic opportunity/risk analyses with a ten-year assessment period. These analyses are annually reviewed as part of strategic controlling and are adapted if necessary.
- Our Group-wide Compliance Program serves to ensure adherence to legal regulations and the company's internal guidelines. Our global employee Code of Conduct firmly embeds these mandatory standards into everyday business. Members of the Board of Executive Directors are also expressly obligated to follow these principles.

 For more on our Group-wide Compliance Program, see page 136 onward

### Significant features of the internal control and risk management system with regard to the Group financial reporting process

- Conducted in accordance with standardized Group guidelines
- Segregation of duties, four-eyes principle, and clearly regulated access rights
- Annual evaluation of control environment and relevant processes at significant companies

The Consolidated Financial Statements are prepared by a unit in the corporate division Finance. BASF Group's accounting process is based on a standardized accounting guideline that sets out accounting policies and the significant processes and deadlines on a Group-wide basis. There are binding directives for the internal reconciliations and other accounting operations. Standard software is used to carry out the accounting processes for the preparation of the individual financial statements as well as for the Consolidated Financial Statements. There are clear rules for the access rights of each participant in these processes.

Employees involved in the accounting and reporting process meet the qualitative requirements and participate in training on a regular basis. There is a clear assignment of responsibilities between the specialist units, companies and regional service units involved. We strictly adhere to the principles of segregation of duties and dual control, or the "four-eyes principle." Complex actuarial reports and evaluations are produced by specialized service providers or specially qualified employees.

An internal control system for financial reporting continuously monitors these principles. To this end, methods are provided for the structured and Group-wide uniform evaluation of the internal control system in financial reporting.

The significant risks for the BASF Group regarding a reliable control environment for proper financial reporting are reviewed and updated on an annual basis. Risks are compiled into a standardized questionnaire and presented in a central risk catalog.

Moreover, a centralized selection process identifies companies that are exposed to particular risks, that have a material impact on the Consolidated Financial Statements of the BASF Group, or that provide service processes. The selection process is conducted annually. In the relevant companies, one person is given the responsibility of monitoring the execution of the annual evaluation process.

In these companies, the process comprises the following steps:

#### – Evaluation of the control environment

Adherence to internal and external guidelines that are relevant for the maintenance of a reliable control environment is checked by means of a standardized questionnaire and evidenced by sample taking.

#### – Identification and documentation of control activities

In order to mitigate the risks to the financial reporting processes listed in our central risk catalog, critical processes and control activities are documented.

#### – Assessment of the control activities

After documentation, a test is performed to verify whether the described controls are capable of adequately mitigating the risks. In the subsequent test phase, samples are taken to test whether, in practice, the controls were executed as described and effective.

#### – Monitoring of control weaknesses

The managers responsible receive reports on any control weaknesses identified and their resolution, and an interdisciplinary committee investigates their relevance for the BASF Group. The Board of Executive Directors and the Audit Committee are informed once control weaknesses have been identified that have a considerable impact on financial reporting. Only after material control weaknesses have been resolved does the company's managing director confirm the effective internal control system.

#### – Internal confirmation of the internal control system

All managing directors and chief financial officers of each consolidated Group company must confirm to the Board of Executive Directors of BASF SE every half-year and at the end of the annual cycle, in writing, that the internal control system is effective with regard to accounting and reporting.

## Short-term opportunities and risks

### Development of demand

- **Development of our sales markets among greatest opportunities and risks**
- **Negative impact from economic slowdown in China and escalation of geopolitical conflicts possible**

The development of our sales markets is one of the strongest drivers of opportunities and risks. More details on our assumptions regarding short-term growth rates for the global economy, regions and key customer industries, such as the chemicals, automotive and construction sectors, can be found from pages 121 to 123. In accordance with this scenario, we are planning to achieve volumes growth in all segments excluding the effects of acquisitions and divestitures.

In addition to this scenario, we also consider risks from deviations in assumptions. We continue to see a significant macroeconomic risk in an increased slowdown of the Chinese economy, which would have considerable impact on demand for intermediate goods for industrial production as well as investment goods. This would have an effect on emerging markets that export raw materials as well as on advanced economies that specialize in technological goods. Risks to the global economy would also be posed by the possible escalation of geopolitical conflicts.

Should the macroeconomic environment develop more weakly than we predict, a further drop in the price of oil can be expected. In this case, we would also expect the euro to depreciate relative to the U.S. dollar as compared with our planning assumptions, as the eurozone's economy shows a high level of dependency on exports and, in times of global economic weakness, the U.S. dollar is preferred by portfolio investors as a safe haven.

Weather-related influences can result in positive or negative effects on our crop protection business.

### Margin volatility

- **Possible oversupply could lead to lower margins in some value chains**
- **Opportunities and risks from decreasing raw material costs**

We generally anticipate stable margins in 2016. For some products and value chains, it is possible that margin pressure could be increased by new capacities, for example. This would have a negative effect on our EBIT.

The year's average oil price for Brent crude was around \$52 per barrel in 2015, substantially lower than in the previous year. For 2016, we anticipate an average oil price of \$40 per barrel. We therefore expect the low price levels to continue for

the raw materials and petrochemical basic products that are important to our business. Yet an oil price level below the expected average would pose risks for our oil and gas business, whose EBIT dips by approximately €20 million for every \$1 decrease in the average annual barrel price of Brent crude.

### Regulation and political risks

- **Risks posed by factors such as regulation of chemicals use**
- **Energy policy gives rise to both risks and opportunities**

Due to the European chemicals regulation REACH, which came into force in 2007, BASF and our European customers face the risk of being placed at a disadvantage to our non-European competitors due to the cost-intensive test and registration procedures.

Other risks for us would arise from further regulation, for example, of the use of chemicals; the intensification of geopolitical tensions; the destabilization of political systems; and the imposition of trade barriers, such as sanctions in Ukraine crisis or OPEC quotas for oil production. Furthermore, we are closely observing the political situation in Argentina, where economic policy reforms could revitalize the business environment.

The German Renewable Energy Act (EEG) is poised for reform in 2016. This regulates the expansion of electricity generation from renewables and passing on costs to energy customers through the EEG surcharge. Currently, existing power plants for self-generated energy are not subject to the EEG surcharge. Consequently, there is currently no additional financial burden for the electricity BASF generates in its existing power plants. The upcoming EEG amendment, however, means that the German federal government needs to review, and possibly revise, this matter in accordance with the E.U. Commission's mandate. It is possible that these plants would need to pay a portion of the EEG surcharge in the future, which would negatively affect the competitive ability of the affected production sites. A proportional EEG surcharge of 20% would translate into additional charges of €75 million per year (before taxes), and the complete EEG surcharge would lead to expenses of around €400 million each year. It is important that negotiations between the federal government and the E.U. Commission find a solution that avoids putting a considerable strain on the affected companies.

We view the worldwide support for the expansion of renewable energy and measures to increase energy efficiency as an opportunity for increased demand for our products. For example, we offer diverse solutions for wind turbines in addition to insulation foams for buildings. Our catalysts business benefits from the tightening of automobile emissions regulations.

### Production and delivery bottlenecks

We try to prevent unscheduled plant shutdowns by adhering to high technical standards and continuously improving our plants. We reduce the effects of unscheduled shutdowns through diversification within our global production Verbund.

We minimize procurement risks through our broad portfolio, global purchasing activities and the purchase of raw materials on spot markets, as well. If possible, we avoid procuring raw materials from a single supplier. When this cannot be avoided, we try to foster competition or we knowingly enter into this relationship and assess the consequences of potential nondelivery. We continuously monitor the credit risk of important business partners.

### Information technology risks

- Global procedures and systems for IT security
- Regular training for employees
- Cyber Defense Center established

BASF relies on a number of IT systems. Their nonavailability, violation of confidentiality or the manipulation of data in critical IT systems and applications can all have a direct impact on production and logistics processes. The threat environment has changed in recent years, as attackers have become better organized, use more sophisticated tools, and have far more resources available. If data are lost or manipulated, this can, for example, negatively affect process safety and the accuracy of our financial reporting. Unauthorized access to sensitive data, such as personnel records, competition-related information or research results, can result in legal consequences or jeopardize our competitive position. This would also be accompanied by the associated loss of reputation.

To minimize such risks, BASF has implemented globally applicable processes and systems to ensure IT security, such as stable and redundantly designed IT systems, backup processes, virus and access protection and encryption systems as well as integrated, Group-wide standardized IT infrastructure and applications. The systems used for information security are constantly tested, continuously updated, and expanded if necessary. In addition, our employees receive regular training on information and data protection. IT-related risk management is conducted using Group-wide regulations for organization and application, as well as an internal control system based on these regulations.

BASF also established a Cyber Defense Center in 2015; is a member of the Cyber Security Sharing and Analytics e.V. (CSSA); and is a founding member of the German Cyber Security Organization (DCSO) together with Allianz SE, Bayer AG and Volkswagen AG.

### Litigation and claims

- Regular reporting on risks from litigation
- Risk assessment based on probability of occurrence

We constantly monitor current and potential legal disputes and proceedings, and regularly report on these to the Board of Executive Directors and Supervisory Board. In order to assess the risks from current legal disputes and proceedings and any potential need to recognize provisions, we prepare our own analysis and assessment of the circumstances and claims considered. In addition, in individual cases, we consider the results of comparable proceedings and, if needed, independent legal opinions. Risk assessment is particularly based on estimates as to the probability of occurrence and the range of possible claims. These estimates are the result of close cooperation between the affected operating and functional units together with the Legal and Finance departments. If sufficient probability is identified, a provision is recognized accordingly for each dispute. Should a provision be unnecessary, general risk management continues to assess whether these litigations nevertheless present a risk for the EBIT of the BASF Group.

We use our internal control system to limit risks from potential infringements of rights or laws. For example, we try to avoid patent and licensing disputes whenever possible through extensive clearance research. As part of our Group-wide Compliance Program, our employees receive regular training.

### Financial opportunities and risks

The management of liquidity, currency and interest rate risks is conducted in the Treasury unit. The management of commodity price risks takes place in the Procurement competence center or in the appropriately authorized Group companies. Detailed guidelines and procedures exist for dealing with financial risks. Among other things, they provide for the segregation of trading and back office functions.

## Exchange rate volatility

### ■ Opportunities and risks especially from U.S. dollar exchange rate fluctuations

Our competitiveness on global markets is influenced by fluctuations in exchange rates. For BASF's purchasing, opportunities and risks arise in particular when the U.S. dollar exchange rate fluctuates. A full-year rise in the value of the U.S. dollar/euro exchange rate by \$0.01 would result in an increase of around €40 million in BASF's EBIT, assuming other conditions remain the same. On the production side, we mitigate foreign currency risks by having production sites in the respective currency zones.

Financial currency risks result from the translation of receivables, liabilities and other monetary items in accordance with IAS 21 at the closing rate into the functional currency of the respective Group company. In addition, we incorporate planned purchase and sales transactions in foreign currencies in our financial foreign currency risk management. These risks are hedged using derivative instruments, if necessary.

## Interest rate risks

### ■ Market interest rates and credit risk premiums to be paid have major impact on financing costs

Interest rate risks result from potential changes in prevailing market interest rates. These can cause a change in the present value of fixed-rate instruments and fluctuations in the interest payments for variable-rate instruments, which would positively or negatively affect earnings. To hedge these risks, interest rate swaps and combined interest rate and currency derivatives are used in individual cases.

In addition to market interest rates, BASF's financing costs are determined by the credit risk premiums to be paid. These are mainly influenced by our credit rating and the market conditions at the time of issue. In the short to medium term, BASF is largely protected from the possible effects on its interest result thanks to the well-balanced maturity profile of its financial indebtedness.

## Risks from metal and raw material trading

In the catalysts business, BASF employs commodity derivatives for precious metals and trades precious metals on behalf of third parties and on its own account. In addition, we use our knowledge of the markets for crude oil and oil products to generate earnings from the trade of raw materials. To address specific risks associated with these trades, which are not part of our operating business, we set and continuously monitor limits with regard to the type and size of the deals concluded.

## Liquidity risks

Risks from fluctuating cash flows are recognized in a timely manner as part of our liquidity planning. We have access to extensive liquidity at any time thanks to our good ratings, our unrestricted access to the commercial paper market and committed bank credit lines. In the short to medium term, BASF is largely protected against potential refinancing risks by a balanced maturity profile for financial indebtedness as well as through diversification in various financial markets.

📖 For more on financial risks, see the Notes to the Consolidated Financial Statements from page 210 onward

For more on the maturity profile of our financial indebtedness, see the Notes to the Consolidated Financial Statements on page 206

## Risk of asset losses

We limit country-specific risks with measures based on internally determined country ratings, which are continuously updated to reflect changing environment conditions. We selectively use export credit insurance and investment guarantees to limit specific country-related risks. We lower credit risks for our financial investments by engaging in transactions only with banks with good credit ratings and by adhering to fixed limits. The credit ratings are continuously monitored and the limits are adjusted accordingly. We reduce the risk of default on receivables by continuously monitoring the credit-worthiness and payment behavior of our customers and by setting appropriate credit limits. Due to the global activities and diversified customer structure of the BASF Group, there are no major concentrations of credit default risk. Risks are also limited through the use of credit insurance and bank guarantees.

## Impairment risks

The risk of an asset impairment occurs if the assumed interest rate in an impairment test increases or the predicted cash flows decline. In the current business environment, we consider the risk of impairment of individual assets such as customer relationships, technologies and brands, as well as goodwill, to be nonmaterial. Nevertheless, a continuing decline in the price of oil below our assumed planning level would result in impairment risks for the Oil & Gas segment's assets, especially the recently acquired fields measured at fair value.

## Long-term incentive program for senior executives

Our executives have the opportunity to participate in a share-price-based compensation program. The need for provisions for this program varies according to the development of the BASF share price and the MSCI World Chemicals Index; this leads to a corresponding increase or decrease in personnel costs.



## Risks from pension obligations

Most employees are granted company pension benefits from either defined contribution or defined benefit plans. We predominantly finance company pension obligations externally through separate plan assets. This particularly includes BASF Pensionskasse VVaG and BASF Pensionstreuhand e.V. in Germany, in addition to the large pension plans of our Group companies in North America, the United Kingdom and Switzerland. To address the risk of underfunding due to market-related fluctuations in plan assets, we have investment strategies that align return and risk optimization to the structure of the pension obligations. Stress scenarios are also simulated regularly by means of portfolio analyses. An adjustment to the interest rates used in discounting pension obligations leads immediately to changes in equity. To limit the risks of changing financial market conditions as well as demographic developments, employees have been almost exclusively offered defined contribution plans for future years of service in recent years.

## Long-term opportunities and risks

### Long-term demand development

- **Annual average growth of nearly 4% expected for global chemical production**

In our “We create chemistry” strategy, we assume that chemical production (excluding pharmaceuticals) will grow by nearly 4% each year through 2020. Chemical production would therefore grow considerably faster than global gross domestic product and at about the same level as the previous five-year average. Through our market-oriented and broad portfolio, which we will continue to strengthen in the years ahead through investments in new production capacity, research and development activities and acquisitions, we aim to achieve sales growth that slightly exceeds this market growth.

Should global economic growth see unexpected, considerable deceleration, due for example to an ongoing weak period in the emerging markets or to geopolitical crises, these goals could prove too ambitious. As a result of our high degree of diversification across various customer industries and regions, we would still expect our growth to be above the market average, even under these conditions.

 For more on the “We create chemistry” strategy, see page 24 onward

### Development of the competitive and customer landscape

- **Opportunities from active portfolio management and focus on innovative business areas**

We expect competitors from emerging markets to gain considerable significance in the years ahead. Furthermore, we predict that many raw material suppliers will expand their value chains.

We are addressing this risk through active portfolio management. We exit markets where risks outweigh opportunities, and in which we do not see satisfactory long-term opportunities to stand out from our competitors.

In order to remain competitive, we continuously improve our operational excellence. Our new strategic excellence program, DrivE, also contributes to this aim. Starting at the end of 2018, we expect this program to contribute around €1 billion in earnings each year compared with baseline 2015.

In order to achieve long-term profitable growth, our research and business focus is on highly innovative business areas, which we sometimes enter into through strategic cooperative partnerships.

## Innovation

- **Chances of success in research and development increased by Know-How Verbund**

We are observing a trend toward more sustainability in our customer industries. We want to take advantage of the resulting opportunities with innovations. In the long term, we aim to continue significantly increasing sales of new and improved products.

To achieve this goal, we continue to aim to invest around 3% of our sales (excluding Oil & Gas) in research and development. At the beginning of 2015, we pooled the central research areas Process Research & Chemical Engineering, Advanced Materials & Systems Research and Bioscience Research into three global platforms headquartered in one of the regions particularly significant for us: Europe, Asia Pacific and North America. Stronger regional presence opens up new opportunities to participate in local innovation processes and gain access to local talent. We also address the risk of the technical or economic failure of research and development projects by maintaining a balanced and comprehensive project portfolio, as well as through professional, milestone-based project management.

We optimize the efficiency and effectiveness of our research activities through our global Know-How Verbund as well as through collaboration with partners and customers. Furthermore, in a program and project management process, we continuously review the chances of success and the underlying assumptions of research projects; this review includes all phases from idea generation to product launch. The trust of customers and consumers is essential for the successful introduction of new technologies. That is why we enter into dialog with stakeholders at an early stage of development.

 For more on innovation, see page 34 onward

## Portfolio development through investments

### ■ 2016–2020: More than a quarter of our investing volume to go into emerging markets

We expect the increase in chemical production in emerging markets in the coming years to be significantly above the global average. This will create opportunities that we want to exploit by expanding our presence in these economies; therefore, more than a quarter of our investment volume will be spent in emerging markets over the next five years. We also want to intensify investment in North America in light of the attractive growth prospects and low raw material prices: for example, we are constructing an ammonia production plant with Yara in Freeport, Texas. In addition, we are exploring an investment in a world-scale methane-to-propylene complex on the U.S. Gulf Coast.

Our decisions on the type, size and locations of our investment projects are based on assumptions related to the long-term development of markets, margins and costs, as well as raw material availability and country, currency and technology risks. Opportunities and risks arise when actual developments deviate from our assumptions.

In the implementation phase, we use our experience in project management and controlling to minimize short-term technical risks as well as risks from cost overruns or missed deadlines.

📖 For more on our investment plans, see page 125 onward

## Acquisitions

### ■ Detailed assessment of opportunities and risks as part of due diligence

In the future, we will continue to refine our portfolio through acquisitions that promise above-average profitable growth, are innovation-driven and offer added value for our customers while reducing the cyclicity of our earnings.

The evaluation of opportunities and risks already plays a significant role during the assessment of potential acquisition targets. A detailed analysis and quantification are conducted as part of due diligence. Examples of risks include increased staff turnover, delayed realization of synergies, and the assumption of obligations that were not precisely quantifiable in advance. If our expectations in this regard are not fulfilled, risks could arise, such as the need to impair intangible assets; however, there could also be opportunities, for example, from additional synergies.

📖 For more on our acquisitions, see page 39 onward

## Recruitment and long-term retention of qualified employees

### ■ Risk of retirement-related loss of expertise

BASF, too, is adjusting to a medium to long-term shortage of skilled employees due to demographic changes, especially in North America and Europe. As a result, there is an increased risk that job vacancies may not be filled with suitable applicants, or only after a delay. We address these risks through our Best Team Strategy and the global initiatives derived from it, covering demographic and knowledge management, Diversity + Inclusion, employee and leadership development, intensified employer branding, and supplementary regional initiatives. With these measures, we increase BASF's attractiveness as an employer and retain our employees in the long term. 🌐

📖 For more on the individual initiatives and our goals, see page 42 onward

## Sustainability

### ■ Identification of upcoming opportunities and risks

### ■ Risk management established for material aspect “energy and climate”

BASF uses sustainability management tools to identify upcoming opportunities and risks that arise in connection with the topic areas environment, society and governance. Their long-term effect on our business activities and their associated relevance are assessed through such instruments as our materiality analysis, along with our experiences from continuous dialog with our stakeholders. We have established global monitoring systems which also include our suppliers – these enable us to check adherence to laws and our voluntary commitments in the areas of environment, safety, security, society, and governance.

In terms of upcoming opportunities and risks, material aspects identified included: energy and climate, water, resources and ecosystems, responsible production, and employment and employability. In addition to specific requirements for these aspects, discussion is growing surrounding the internalization of external effects.

The material aspect “energy and climate” is analyzed as part of our risk management process in order to allow us to identify, assess and direct climate-related risks and opportunities.

For BASF as an energy-intensive company, opportunities and risks arise particularly from regulatory changes in carbon prices through emissions trading systems, taxes or energy legislation. 🌐

📖 For more on sustainability management, see page 31 onward

For more on energy and climate protection, see page 105 onward

For more on opportunities and risks from energy policies, see page 116

## Economic environment in 2016

The global economy will presumably grow by 2.3% in 2016, about as fast as in 2015 (+2.4%). Growth in the European Union will remain comparable with prior-year levels. In the United States, growth is expected to slow down somewhat. We forecast that Chinese economic growth will continue to decelerate slightly and that the recession will ease up somewhat in Russia and Brazil. Global chemical production is likely to grow by 3.4% in 2016, slower than 2015 (+3.6%). The global economy continues to face increasing risks. For 2016, we assume an average price of \$40 per barrel for Brent blend crude oil and an exchange rate of \$1.10 per euro.

### Trends in the global economy in 2016

- Stable growth expected for the European Union
- Economic cooldown in China with dampening effects on Asia's emerging markets
- Recovery of Japanese economy unlikely
- Continued, but milder, deceleration predicted for South America

For 2016, we anticipate growth in the **European Union's** economy on approximately the same level as the previous year. Low oil prices, largely stable prices, reduced interest rates and favorable euro exchange rates will support this development, although these factors do not represent additional growth stimulus as they have already been in effect since 2015. The economy will stabilize noticeably in southern Europe. In northwestern Europe and the eastern European E.U. countries, growth will hover at prior-year levels. We expect the recession to continue in Russia and Ukraine, although the decline is likely to ease off compared with 2015.

Growth in the **United States** will probably slacken somewhat in the face of slower industrial growth. Benefiting from the positive job market situation and low inflation rates, private consumption will provide some stability. Experience shows that rising real estate value also has a positive effect on consumption. Increasingly better production capacity utilization along with continuing low interest rates are likely to support the propensity to invest.

In the **emerging markets of Asia**, we assume that growth will weaken to a moderate level overall. Gross domestic product growth will continue to slow in China. The government's

### Outlook for gross domestic product 2016

(Real change compared with previous year)

World	2.3%	
European Union	1.7%	
United States	2.1%	
Emerging markets of Asia	5.7%	
Japan	0.8%	
South America	(1.7%)	

### Trends in gross domestic product 2016–2018

(Average annual real change)

World	2.7%	
European Union	1.8%	
United States	2.4%	
Emerging markets of Asia	5.8%	
Japan	0.7%	
South America	0.6%	

monetary and fiscal easing measures could bolster the real estate market and automotive sector, but the growth stimulus will remain modest. China's economic cooldown will continue to negatively impact trading partners in the region. Currently, the greatest risk for the global economy would be posed by growth in China that proves even weaker than our expectations.

**Japan's** gross domestic product is expected to continue growing only minimally in 2016. Despite the weak yen, the current global economic environment gives no cause to believe that exports will significantly increase. Domestic demand may also grow only modestly. The sales tax increase expected for the spring of 2017 could, however, stimulate private consumption to grow faster than usual toward the end of 2016.

For **South America**, we expect a continued, if somewhat weaker, decline in gross domestic product overall. Structural reforms in Argentina should revive the economy in the medium term; in the short term, however, they will weaken private demand. We therefore anticipate a slight decrease in gross domestic product. Leading indicators do not yet point to an upswing in Brazil. We nevertheless do not expect the downward trend to continue unabated, especially since the sharp depreciation of the Brazilian real will support the export business.

## Outlook for key customer industries

### ■ Same level of growth expected in global industrial production for 2016

Global industrial production will probably grow by 2.0%, no stronger than in 2015. Industry in the advanced economies will keep growing modestly, by around 1%. In the emerging markets of Asia, we anticipate industrial growth at a level somewhat below that of 2015 (+4.7%). After a decline in the previous year, we anticipate slight growth again for the remaining emerging markets in 2016 (+0.7%).

We foresee overall recovery for the **transportation sector** compared with 2015. After two years of dynamic development in western Europe, we assume that growth will slow down in 2016. It will probably slacken in the United States, as well. By contrast, China's automotive industry will show moderate recovery as a result of the decrease in purchase taxes for small-motor vehicles. This should mean a slight increase in automobile production in Asia's other emerging markets for this reason, as well. Slight growth in the automotive industry is also anticipated in Japan after the previous year's considerable decline. In Brazil, automobile production is likely to decrease once again and Russia's market could grow slightly at best.

Production in the **energy and raw materials sector** will see only marginal gains in 2016 in light of lower raw material prices and moderate growth in the global economy. We anticipate only marginal production increases in western and eastern Europe as well as in the Middle East. In Asia, domestic energy and raw material production is likely to see slight growth. We expect production to decline in North and South America.

For the **construction industry**, we predict stable growth rates on a global level, with regions varying widely. Construction activity will likely continue to stabilize in western Europe. Low interest rates and increased real income will be a boon to housing construction in northwestern Europe. The branch has been shrinking for years in Italy and France and could bottom out. In the United States, the industry saw a significant upswing in 2015 and the number of construction starts increased sharply. We therefore anticipate robust growth in 2016, as

well. In China, however, production growth will probably continue to slow; the housing market in particular is suffering from oversupply. We expect the other Asian emerging markets to show stable growth rates in the construction industry. The South American market is likely to slightly shrink.

We assume that the **consumer goods industry** will grow somewhat faster than in the previous year. In Asia, demand for consumer goods is likely to remain stable: this prediction is supported by the realignment of China's economy toward a more consumer-oriented growth model and Japan's upcoming sales tax increase in 2017. We anticipate restrained growth in production in western Europe's consumer goods industries. In the United States, production growth will remain far behind private demand, as the strong U.S. dollar will favor the import of consumer goods.

The **electronics industry** is set to grow as fast in 2016 as it did in the previous year. We anticipate stable growth in Asia, the global center of the electronic industry. We foresee slight deceleration in China and South Korea, whereas Taiwan and Japan will probably show rising growth rates. Growth is expected to be slower in North America and stable in western Europe.

We predict solid global growth roughly comparable with prior-year levels for production in the **health and nutrition sector**. In Europe, we anticipate slightly higher growth rates overall. In North America, the industry is likely to be somewhat outpaced by the growth rate of gross domestic product. Growth rates in this sector will probably decline slightly in Asia, but at a high level. Production in South America will continue to decrease slightly.

For **agriculture**, we anticipate worldwide growth on par with the average rate of the past few years. Rising demand from China and India suggests solid production growth at home as well as in Brazil and the United States, two major exporting countries. In Europe, production growth will follow the weak regional trends in demand. The severe economic crisis in Ukraine and the ongoing conflict in the eastern part of the country will be reflected in decreasing agricultural production. The low price of oil will continue to curtail global demand for bioethanol. We expect prices for agricultural raw materials to remain under pressure in 2016.

## Outlook for the chemical industry

### ■ Global growth slightly below the level of 2015

Global chemical production (excluding pharmaceuticals) will probably grow by 3.4% in 2016, slightly slower than in 2015 (+3.6%). We expect production in the advanced economies to expand by 1.3%, somewhat slower than in the previous year (+1.6%). At 5.0%, overall growth in the emerging markets will also approximate prior-year levels.

The global growth rate of the chemical market will be largely determined by developments in China, which accounts for more than a third of worldwide production. China will presumably contribute more than two percentage points to the rate of global chemical industry growth in 2016. All growth forecasts for China are currently fraught with high levels of uncertainty; this applies to our prognosis for global chemical growth, as well.

Chemical production in the **European Union** is likely to grow only slowly in 2016. Demand from customer industries in the region will grow moderately, yet we do not anticipate any additional growth stimulus beyond this from the export business for Europe's chemical producers. Overall, competitive pressure could remain high on an international level, even as European chemical sites – as in the previous year – benefit from low oil prices compared with U.S. competitors whose production is based on gas.

We expect chemical production to expand in the **United States** against the backdrop of solidly growing demand overall from customer industries. However, momentum let up considerably over the course of 2015, which may be reflected in a lower growth rate for 2016.

Chemical growth will decelerate somewhat overall in the **emerging markets of Asia**. While it will probably continue to shrink in China, it will hover around prior-year levels in the region's other countries. The higher growth rates we expect for the automotive industry will support demand for chemicals. Slower construction activity in China will presumably have a dampening effect. In **Japan**, we anticipate a weak economic environment overall and minimal growth in chemical production.

The chemical industry in **South America** will stagnate overall. Demand is likely to remain weak in Argentina; in Brazil, it will continue to decline. In the other South American countries, however, we expect solid growth on average.

### Outlook for chemical production 2016 (excl. pharmaceuticals)

(Real change compared with previous year)

World	3.4%	
European Union	0.9%	
United States	1.7%	
Emerging markets of Asia	5.9%	
Japan	1.0%	
South America	(0.2%)	

### Trends in chemical production 2016–2018 (excl. pharmaceuticals)

(Average annual real change)

World	3.6%	
European Union	1.1%	
United States	2.5%	
Emerging markets of Asia	5.9%	
Japan	0.6%	
South America	1.3%	

## Outlook 2016

We expect conditions to remain challenging in 2016. The global economy and industrial production will presumably grow at a level approximating that of 2015. Chemical production is likely to grow at a slower rate than in 2015. For 2016, we assume an average price of \$40 for a barrel of Brent blend crude oil and an exchange rate of \$1.10 per euro. The global economy continues to face increasing risks. We nevertheless aim to raise sales volumes in all segments. BASF Group sales will decline considerably, however, especially as a result of the divestiture of the gas trading and storage business as well as lower oil and gas prices. We expect income from operations before special items to be slightly below 2015 levels. This is an ambitious goal in the current volatile and challenging environment, and is particularly dependent on oil price developments.

For more information on our expectations for the economic environment in 2016, see page 121 onward

### Sales and earnings forecast for the BASF Group

- Considerable sales decline due to divestiture of gas trading and storage business
- Income from operations before special items expected at level slightly below 2015

BASF Group sales will decrease considerably in 2016. As a consequence of the asset swap with Gazprom, contributions to the Oil & Gas segment have ceased from the natural gas trading and storage business in particular. In the first three quarters of 2015, these activities contributed a total of around €10.1 billion to sales. Sales will be furthermore reduced by lower prices for oil and gas. We want to increase sales volumes in all segments, excluding the effects of acquisitions and divestitures. Income from operations before special items is expected to be slightly below 2015 levels. This is an ambitious goal in the current volatile and challenging environment, and is particularly dependent on oil price developments. We anticipate considerably lower contributions from the Chemicals and Oil & Gas segments. In the other segments, we aim to slightly increase earnings.

We expect EBIT to decline slightly overall in 2016. In addition to a lower level of EBIT before special items, this assumption reflects the charges expected to arise from restructuring measures. The contribution from the Oil & Gas segment is

likely to shrink considerably in 2016; we anticipate a slight decrease in the chemicals business<sup>1</sup> and a slight gain in the Agricultural Solutions segment. In Other, EBIT is forecast to rise considerably. Yet because EBIT of Other is not factored into the calculation of our EBIT after cost of capital, the BASF Group's EBIT after cost of capital will presumably see a considerable decline. We will still earn a premium on our cost of capital. In the Performance Products, Functional Materials & Solutions, and Agricultural Solutions segments, we anticipate a considerable boost in EBIT after cost of capital.

The significant risks and opportunities that could affect our forecast are described on pages 113 to 120.

For more on the cost of capital percentage, see page 30

### Sales and earnings forecast for the segments

Sales in the **Chemicals** segment are likely to decline slightly in 2016. Higher volumes in the Monomers and Intermediates divisions due to the startup of plants will not be able to offset the lower prices resulting from decreased raw material costs. We continue to anticipate intense competitive pressure, especially in the markets for MDI, TDI, acrylic acid and caprolactam. Income from operations before special items is expected to fall considerably. We foresee higher fixed costs in the Monomers and Intermediates divisions from plant startups and shrinking margins, especially in the Petrochemicals division.

In an environment that remains challenging, we plan on sales in the **Performance Products** segment that match prior-year levels, despite lower prices. We want to raise sales volumes in all divisions. Factors supporting this endeavor include new production capacities in the Dispersions & Pigments and Care Chemicals divisions. Income from operations before special items should slightly exceed the level of 2015, supported by strict cost discipline and measures to increase competitiveness in all divisions.

In the **Functional Materials & Solutions** segment in 2016, we expect demand to remain high from our key customer sectors, the automotive and construction industries, and aim to raise sales volumes in all divisions. We nevertheless foresee negative effects from the continuing decrease in precious metal prices and overall sales that remain at a prior-year level. We aim to slightly raise our income from operations before special items.

<sup>1</sup> Our chemicals business comprises the Chemicals, Performance Products and Functional Materials & Solutions segments.



**Forecast by segment<sup>1</sup>** (in million €)

	Sales		Income from operations (EBIT) before special items	
	2015	Forecast 2016	2015	Forecast 2016
Chemicals	14,670	slight decrease	2,156	considerable decrease
Performance Products	15,648	at prior-year level	1,366	slight increase
Functional Materials & Solutions	18,523	at prior-year level	1,649	slight increase
Agricultural Solutions	5,820	slight increase	1,090	slight increase
Oil & Gas	12,998	considerable decrease	1,366	considerable decrease
Other	2,790	considerable decrease	(888)	considerable increase
<b>BASF Group</b>	<b>70,449</b>	<b>considerable decrease</b>	<b>6,739</b>	<b>slight decrease</b>

<sup>1</sup> For sales, "slight" represents a change of 1–5%, while "considerable" applies for changes of 6% and higher. "At prior-year level" indicates no change (+/-0%). For earnings, "slight" means a change of 1–10%, while "considerable" is used for changes of 11% and higher. "At prior-year level" indicates no change (+/-0%).

For 2016, we are anticipating continued slow market growth in the **Agricultural Solutions** segment and high exchange rate volatility in some of our key growth markets. Despite this difficult economic environment, we aim to increase our sales volumes, especially of innovative herbicides. Through increased sales and continued strict cost management, sales and income from operations before special items should both improve slightly.

The **Oil & Gas** segment is likely to see expanded production, but a considerable drop in sales and income from operations before special items compared with 2015. Lower prices for oil and gas, together with the divestiture of our gas trading and storage business, are the major factors behind this forecast. Moreover, we will achieve lower sales and earnings from our share in the Yuzhno Russkoye natural gas field: In 2016, the excess amounts produced over the last ten years will be compensated, as contractually agreed with our partner, Gazprom.

In **Other**, sales are likely to decline considerably due to supply contracts in Asia that expired at the end of 2015. A considerable rise is expected in income from operations before special items, which should result in part from an improved currency result.

**Investments<sup>1</sup>**■ **Investments of around €4.2 billion planned for 2016**

The bulk of our spending in 2015 was on major facilities that started operations during the reporting period, such as parts of the TDI production complex in Ludwigshafen, Germany; production plants for acrylic acid and superabsorbents in Camaçari, Brazil; and an MDI plant in Chongqing, China. We have planned capital expenditures totaling €19.5 billion for the period from 2016 to 2020 and will invest more than a quarter of this amount in emerging markets.

Projects currently being planned or underway include:

**Capital expenditures: Selected major projects**

Location	Project
Antwerp, Belgium	Modification for new superabsorbent technology platform
Beaumont, Texas	Expansion: dicamba and dimethenamid-P
Caojing, China	Construction: automotive coatings
	Construction: chemical catalysts
Geismar, Louisiana	Expansion: butanediol
Kuantan, Malaysia	Construction: aroma chemicals
	Construction: polyisobutene
	Construction: 2-ethylhexanoic acid
Rayong, Thailand	Construction: mobile emissions catalysts
Schwarzheide, Germany	Capacity expansion: compounding plant for Ultramid® and Ultradur®

<sup>1</sup> Excluding additions to property, plant and equipment from acquisitions, capitalized exploration, restoration obligations and IT investments

In the Oil & Gas segment, our currently planned investments of around €4.8 billion between 2016 and 2020 will focus mainly on the development of proven gas and oil deposits in Argentina, Norway and Russia. The actual amount of expenditure will depend on oil and gas price developments and be reduced as needed.

For 2016, we plan total investments of around €4.2 billion, particularly for the major projects in the countries listed above.

#### Capital expenditures by segment, 2016–2020

1	Chemicals	30%
2	Performance Products	16%
3	Functional Materials & Solutions	12%
4	Agricultural Solutions	4%
5	Oil & Gas	24%
6	Other (infrastructure, R&D)	14%



#### Capital expenditures by region, 2016–2020

1	Europe	46%
2	North America	26%
3	Asia Pacific	18%
4	South America, Africa, Middle East	9%
5	Alternative sites currently being investigated	1%



## Dividend

We stand by our ambitious dividend policy and offer our shareholders an attractive dividend yield. We continue to aim to increase our dividend each year, or at least maintain it at the previous year's level.

Information on the proposed dividend can be found from page 14 onward

## Financing

Our financing policy is aimed at ensuring our solvency at all times, limiting the risks associated with financing and optimizing our cost of capital. We strive to maintain at least a solid "A" rating, which allows the BASF Group unrestricted access to money and capital markets.

From the scheduled repayment of bonds, we expect cash outflows in the equivalent amount of around €900 million in 2016. To refinance mature bonds and to optimize our maturity profile, we continue to have medium to long-term corporate bonds and our U.S. dollar commercial paper program at our disposal.

Information on our financing policies can be found on page 59

## Events after the reporting period

On February 17, 2016, we announced that a general agreement had been reached with AkzoNobel on the sale of the Coatings division's industrial coatings business for €475 million. The transaction would include technologies, patents and trademarks, as well as the transfer of two production sites in England and South Africa. The planned transaction is subject to the required consultation with employee representatives and certain regulatory approvals. Our industrial coatings business generated sales of approximately €300 million in 2015. We intend to complete the transaction by the end of 2016.

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# Corporate governance report

## Board of Executive Directors

Manages company and represents BASF SE in business with third parties

## Supervisory Board

Appoints, monitors and advises Board of Executive Directors

## Shareholders

Exercise rights of co-administration and supervision at Annual Shareholders' Meeting

Corporate governance refers to the entire system for managing and supervising a company. This includes the organization, values, corporate principles and guidelines as well as internal and external control and monitoring mechanisms. Effective and transparent corporate governance guarantees that BASF is managed and monitored in a responsible manner focused on value creation. This fosters the confidence of our domestic and international investors, the financial markets, our customers and other business partners, employees, and the public in BASF.

The fundamental elements of BASF SE's corporate governance system are: its two-tier system, with a transparent and effective separation of company management and supervision between BASF's Board of Executive Directors and the Supervisory Board; the equal representation of shareholders and employees on the Supervisory Board; and the shareholders' rights of co-administration and supervision at the Annual Shareholders' Meeting.

### Direction and management by the Board of Executive Directors

- Board of Executive Directors strictly separated from the Supervisory Board
- Determines corporate goals and strategic orientation
- Reports to Supervisory Board

The Board of Executive Directors is responsible for the management of the company, and represents BASF SE in business undertakings with third parties. BASF's Board of Executive Directors is strictly separated from the Supervisory Board, which monitors the activity of the Board of Executive Directors and decides on its composition. A member of the Board of Executive Directors cannot simultaneously be a member of the Supervisory Board. As the central duty of company management, the Board of Executive Directors agrees on the corporate goals and strategic direction of the BASF Group as well as their individual business areas; determines the company's internal organization; and decides on the composition of management on the levels below the Board. It also manages and monitors BASF Group business through the planning and setting of the corporate budget, the allocation of resources and management capacities, the monitoring and decision-making regarding significant individual measures, and the control of the operational management.

The Board's actions and decisions are aligned with the company's best interests. It is committed to the goal of sustainably increasing the company's value. Among the Board's responsibilities is the preparation of the consolidated and individual financial statements of BASF SE. Furthermore, it must ensure that the company's activities comply with legal requirements and internal corporate directives. This includes the establishment of appropriate controls and risk management systems.

Decisions that are reserved for the Board as a whole by law, through the Board of Executive Directors' Rules of Procedure or through resolutions adopted by the Board, are made at regularly held Board meetings called by the Chairman of the Board of Executive Directors. Board decisions are generally based on detailed information and analyses provided by the business areas and specialist units, and, if deemed necessary, by external consultants. Board decisions can generally be made via a simple majority. In the case of a tied vote, the casting vote is given by the Chairman of the Board. However, the Chairman of the Board does not have the right to veto the decisions of the Board of Executive Directors. Members of the Board of Executive Directors are authorized to make decisions individually in their assigned areas of responsibility.

The Board can set up Board Committees to consult and decide on individual issues; these must include at least three members of the Board of Executive Directors. For the preparation of important decisions, such as those on acquisitions, divestitures, investments and personnel, the Board has various commissions at the level below the Board that carefully assess the planned measure and evaluate the associated opportunities and risks, and based on this information, report and make recommendations to the Board – independently of the affected business area.

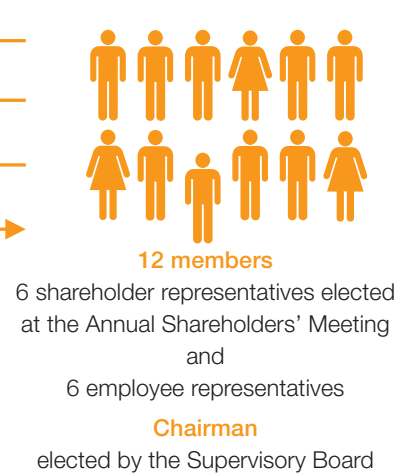
The Board of Executive Directors informs the Supervisory Board regularly, without delay and comprehensively, of all issues important to the company with regard to planning, business development, risk situation, risk management and compliance. Furthermore, the Board of Executive Directors coordinates the company's strategic orientation with the Supervisory Board.

**Two-tier management system of BASF SE**

**Board of Executive Directors**



**Supervisory Board**



The Statutes of BASF SE define certain transactions that require the Board of Executive Directors to obtain the Supervisory Board's approval prior to their conclusion. Such cases include the acquisition and disposal of enterprises and parts of enterprises, as well as the issue of bonds or comparable financial instruments. However, this is only necessary if the acquisition or disposal price or the amount of the issue in an individual case exceeds 3% of the equity reported in the last approved Consolidated Financial Statements of the BASF Group.

For more on risk management, see the Forecast from page 113 onward  
The members of the Board of Executive Directors, including their areas of responsibility and memberships on the supervisory bodies of other companies, are listed on page 138. Compensation of the Board of Executive Directors is described in detail in the Compensation Report from page 140 onward.

**Supervision of company management by the Supervisory Board**

- Supervisory Board appoints, monitors and advises Board of Executive Directors
- Four Supervisory Board committees

The Supervisory Board appoints the members of the Board of Executive Directors and supervises and advises the Board on management issues. As members of the Supervisory Board cannot simultaneously be on the Board of Executive Directors, a high level of autonomy is already structurally ensured with regard to the supervision of the Board of Executive Directors.

Together with the SE Council Regulation, the Statutes of BASF SE and the Agreement Concerning the Involvement of Employees in BASF SE (Employee Participation Agreement) constitute the relevant legal basis for the size and composition of the Supervisory Board. In November 2015, the Employee Participation Agreement was supplemented by several stipulations implementing the statutory regulations on the minimum percentage of women and men in the Supervisory Board as of January 1, 2016. The German Codetermination Act does not apply to BASF as a European stock corporation (Societas Europaea, SE).

The Supervisory Board of BASF SE comprises twelve members. Six members are elected by the shareholders at the Annual Shareholders' Meeting. The remaining six members are elected by the BASF Europa Betriebsrat (European Works Council), the European employee representation body of the BASF Group.

Resolutions of the Supervisory Board are passed by a simple majority vote of the participating members. In the event of a tie, the vote of the Chairman of the Supervisory Board, who must always be a shareholder representative, shall be the casting vote. This resolution process is also applicable for the appointment and dismissal of members of the Board of Executive Directors by the Supervisory Board.

BASF SE's Supervisory Board has established a total of four Supervisory Board Committees: the Personnel Committee, the Audit Committee, the Nomination Committee and, as of 2015, the Strategy Committee.

For more on the Statutes of BASF SE and the Employee Participation Agreement, see [basf.com/en/cg/investor](http://basf.com/en/cg/investor)

The members of the Supervisory Board of BASF SE, including their membership on the supervisory bodies of other companies, are listed on page 139.

Compensation of the Supervisory Board is described in the Compensation Report from page 146 onward.



## Personnel Committee

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### Members:

Dr. Jürgen Hambrecht (Chairman), Michael Diekmann, Robert Oswald, Michael Vassiliadis

### Duties:

- Prepares the appointment of members to the Board of Executive Directors by the Supervisory Board as well as the employment contracts to be entered into with members of the Board of Executive Directors
- When making recommendations for appointments to the Board of Executive Directors, considers professional qualifications, international experience and leadership skills as well as long-term succession planning, diversity, and especially the appropriate consideration of women
- Prepares the resolutions made by the Supervisory Board with regard to the system and determination of the amount of compensation paid to members of the Board of Executive Directors

## Audit Committee

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### Members:

Dame Alison Carnwath DBE (Chairwoman), Ralf-Gerd Bastian, Franz Fehrenbach, Michael Vassiliadis

### Duties:

- Prepares the negotiations and resolutions of the Supervisory Board for the approval of the Financial Statements and Consolidated Financial Statements, and discusses the quarterly and first-half financial reports with the Board of Executive Directors prior to their publication
- Deals with monitoring the financial reporting process, the annual audit, the effectiveness of the internal control system, the risk management system, and the internal auditing system as well as compliance issues
- Is responsible for business relations with the company's external auditor: prepares the Supervisory Board's proposal to the Annual Shareholders' Meeting regarding the selection of an auditor, monitors the auditor's independence, defines the focus areas of the audit together with the auditor, negotiates auditing fees and establishes the conditions for the provision of the auditor's nonaudit services
- Is authorized to request any information that it deems necessary from the auditor or Board of Executive Directors; can also view all of BASF's business documents and examine these and all other assets belonging to BASF. The Audit Committee can also engage experts such as auditors or lawyers to carry out these inspections

## Nomination Committee

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### Members:

Dr. Jürgen Hambrecht (Chairman), Dame Alison Carnwath DBE, Prof. Dr. François Diederich, Michael Diekmann, Franz Fehrenbach, Anke Schäferkordt

### Duties:

- Identifies suitable candidates for the Supervisory Board based on objectives for the composition decided on by the Supervisory Board
- Prepares the recommendations made by the Supervisory Board for the election of Supervisory Board members for the Annual Shareholders' Meeting

## Strategy Committee

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### Members:

Dr. Jürgen Hambrecht (Chairman), Dame Alison Carnwath DBE, Michael Diekmann, Robert Oswald, Michael Vassiliadis

### Duties:

- Handles the further development of the company's strategy and prepares approval resolutions of the Supervisory Board on the company's major acquisitions and divestitures

## Objectives for Supervisory Board composition

### ■ Composition criteria: professional and personal qualifications, diversity, and independence

One important concern of good corporate governance is to ensure that seats on the responsible corporate bodies, the Board of Executive Directors and the Supervisory Board, are appropriately filled. Seats on the Board of Executive Directors and Supervisory Board should be filled with members who ensure a well-balanced consideration of all the knowledge, skills and personal qualifications necessary to manage and supervise BASF as a large, globally operating, capital market-oriented company in the chemical industry.

On October 21, 2010, the Supervisory Board agreed upon objectives for the composition of the Supervisory Board in accordance with Section 5.4.1 of the German Corporate Governance Code; these were supplemented in the Supervisory Board meetings of December 20, 2012, and October 22, 2015. According to these objectives, the Supervisory Board shall be composed in such a way that the members as a group possess knowledge, ability and expert experience

- In the management of an internationally operating company
- In cross-industry value creation along different value chains
- In the application of accounting principles and internal control procedures
- In the field of technical and scientific innovations in the chemical sector and associated industries as well as in the sectors using chemical products.

At least one independent member of the Supervisory Board must have expertise in the fields of accounting or auditing as per Section 100(5) of the German Stock Corporation Act. With regard to diversity, the Supervisory Board shall consider a variety of professional and international experience as well as the participation of women. With regard to independence, the Supervisory Board aims to ensure that all Supervisory Board members are independent as defined by the terms of the Code. Individuals who may have a conflict of interest shall not be nominated for election to the Supervisory Board. The same applies to candidates who will have reached the age of 70 by the day of the election. Since October 2015, there has been an additional objective for the composition: Membership on the Supervisory Board should generally not exceed 15 years; this corresponds to three regular statutory periods in office. The members of the Supervisory Board elected at the Annual Shareholders' Meeting already fulfill this new objective with one exception.

In assessing independence, the Supervisory Board assumes that neither election as an employee representative, nor membership on the Board of Executive Directors more than two years in the past, taken together or in isolation, precludes the classification as independent.

On this basis, the Supervisory Board has determined that all of its current members can be considered independent. We firmly believe that the current composition fulfills the objectives with the aforementioned exception regarding the period of membership.

## Commitments to promote the participation of women in leadership positions at BASF SE

### ■ Minimum quota on Supervisory Board, target figures for Board of Executive Directors and top management

On April 24, 2015, the Law on Equal Participation of Women and Men in Leadership Positions in the Private and Public Sector came into force in Germany.

At BASF SE, this law is being put into practice as follows: According to Section 17(2) of the SE Implementation Act, the supervisory board of a publicly listed European society (SE) that is composed of the same number of shareholder and employee representatives must consist of at least 30% each of women and men. The Supervisory Board of BASF SE currently comprises nine men and three women. Two of the six shareholder representatives elected at the Annual Shareholders' Meeting are women. Should any reappointments be necessary on the Supervisory Board of BASF SE, legal regulations – and the stipulations of the BASF SE Employee Participation Agreement based on them – dictate that the percentage of women be increased from the current figure of 25% to at least 30%; that is, four women. The legal minimum quota will therefore be reached after the next regular Supervisory Board election in 2019 at the latest.

Furthermore, pursuant to Section 111(5) of the German Stock Corporation Act, the Supervisory Board determined as a target figure for the Board of Executive Directors of BASF SE that the Board of Executive Directors should have at least one female member. This represents 12.5% of currently eight members of the Board of Executive Directors; the goal had already been reached at the time the target figure was determined.

In addition, the Board of Executive Directors decided on target figures for the proportion of women in the two management levels below the Board of Executive Directors of BASF SE as per the legal requirements in Section 76(4) of the German Stock Corporation Act: Women are to make up 9.4% of the leadership level directly below the Board, and the level below that is to comprise 11.8% women. This corresponds to the status at the time these target figures were determined.

The deadline for achieving these goals for the Board of Executive Directors of BASF SE and both management levels below has been set for December 31, 2016. After that, the company will review the numbers and subsequently decide on new target figures for BASF SE.

📖 For more on women in executive positions in the BASF Group worldwide, see page 45

## Shareholders' rights

- Shareholders' rights of co-administration and supervision at the Annual Shareholders' Meeting
- One share, one vote

Shareholders exercise their rights of co-administration and supervision at the Annual Shareholders' Meeting. The Annual Shareholders' Meeting elects half of the members of the Supervisory Board and, in particular, decides on the formal discharge of the Board of Executive Directors and the Supervisory Board, the distribution of profits, capital measures, the authorization of share buybacks, changes to the Statutes and the selection of the auditor.

Each BASF SE share represents one vote. All of BASF SE's shares are registered shares. Shareholders are obliged to have themselves entered with their shares into the company share register and to provide the information necessary for registration in the share register according to the German Stock Corporation Act. There are no registration restrictions and there is no limit to the number of shares that can be registered to one shareholder. Only the persons listed in the share register are entitled to vote as shareholders. Listed shareholders may exercise their voting rights at the Annual Shareholders' Meeting either personally, through a representative of their choice or through a company-appointed proxy authorized by the shareholders to vote according to their instructions. There are neither voting caps to limit the number of votes a shareholder may cast nor special voting rights. BASF has fully implemented the principle of "one share, one vote."

All shareholders entered in the share register are entitled to participate in the Annual Shareholders' Meetings, to have their say concerning any item on the agenda and to request information about company issues insofar as this is necessary to make an informed judgment about the item on the agenda under discussion. Registered shareholders are also entitled to file motions pertaining to proposals for resolutions made by the Board of Executive Directors and Supervisory Board at the Annual Shareholders' Meeting and to contest resolutions of the Meeting and have them evaluated for their lawfulness in court.


Shareholders who hold at least €500,000 of the company's share capital, a quota corresponding to 390,625 shares, are furthermore entitled to request that additional items be added to the agenda of the Annual Shareholders' Meeting.


## Implementation of the German Corporate Governance Code

- BASF SE follows all recommendations of German Corporate Governance Code

BASF supports the German Corporate Governance Code, which is regarded as an important tool in the capital market-focused continuing development of corporate governance and control, and advocates responsible corporate governance that focuses on sustainably increasing the value of the company.

BASF SE follows all recommendations of the German Corporate Governance Code in its most recently revised version of May 2015. This also applies to the new recommendations regarding the Supervisory Board, for example, the determination of a maximum membership period on the Supervisory Board. In the same manner, BASF has followed nearly all of the nonobligatory suggestions of the German Corporate Governance Code. We have not implemented the suggestion to enable shareholders to follow the proceedings of the entire Annual Shareholders' Meeting online. The Annual Shareholders' Meeting is publicly accessible via online broadcast until the end of the speech by the Chairman of the Board of Executive Directors. The subsequent discussion of items on the agenda is not accessible online in order to preserve the character of the Annual Shareholders' Meeting as a meeting attended by our shareholders on-site.

 The joint Declaration of Conformity 2015 by the Board of Executive Directors and Supervisory Board of BASF SE is rendered on page 152.

 For more on the Declaration of Conformity 2015, the implementation of the Code's suggestions and the German Corporate Governance Code, see [basf.com/en/governance](http://basf.com/en/governance)

### **Disclosure according to Section 315(4) of the German Commercial Code and the explanatory report of the Board of Executive Directors according to Section 176(1) Sentence 1 of the German Stock Corporation Act**

As of December 31, 2015, the subscribed capital of BASF SE was €1,175,652,728.32 divided into 918,478,694 registered shares with no par value. Each share entitles the holder to one vote at the Annual Shareholders' Meeting. Restrictions on the right to vote or transfer shares do not exist. The same rights and duties apply to all shares. According to the Statutes, shareholders are not entitled to receive share certificates. There are neither different classes of shares nor shares with preferential voting rights (golden shares).

The appointment and dismissal of members of the Board of Executive Directors is legally governed by the regulations in Article 39 of the SE Council Regulation, Section 16 of the SE Implementation Act and Sections 84, 85 of the German Stock Corporation Act, as well as Article 7 of the BASF SE Statutes. Accordingly, the Supervisory Board determines the number of members of the Board of Executive Directors (at least two), appoints the members of the Board of Executive Directors, and can nominate a chairperson, as well as one or more vice-chairpersons. The members of the Board of Executive Directors are appointed for a maximum of five years, and reappointments are permissible. The Supervisory Board can dismiss a member of the Board of Executive Directors if there is serious cause to do so. Serious cause includes, in particular, a gross breach of the duties pertaining to the Board of Executive Directors and a vote of no confidence at the Annual Shareholders' Meeting. The Supervisory Board decides on appointments and dismissals according to its own best judgment.

According to Article 59(1) SE Council Regulation, amendments to the Statutes of BASF SE require a resolution of the Annual Shareholders' Meeting adopted with at least a two-thirds majority of the votes cast, provided that the legal provisions applicable to German stock corporations under the German Stock Corporation Act do not stipulate or allow for larger majority requirements. In the case of amendments to the Statutes, the Section 179(2) of the German Stock Corporation Act requires a majority of at least three-quarters of the subscribed capital represented. Pursuant to Article 12(6) of the Statutes of BASF SE, the Supervisory Board is authorized to resolve upon amendments to the Statutes that merely concern their wording. This applies in particular to the adjustment of the share capital and the number of shares after the redemption of repurchased BASF shares and after a new issue of shares from the authorized capital.

Until May 1, 2019, the Board of Executive Directors of BASF SE is empowered by a resolution passed at the Annual Shareholders' Meeting of May 2, 2014, to increase the subscribed capital – with the approval of the Supervisory Board – by a total amount of €500 million through the issue of new shares against cash or contributions in kind (authorized capital). A right to subscribe to the new shares shall be granted to shareholders. This can also be done by a credit institution acquiring the new shares with the obligation to offer these to shareholders (indirect subscription right). The Board of Executive Directors is authorized to exclude the statutory subscription right of shareholders to a maximum amount of a total of 20% of share capital in certain exceptional cases that are defined in Section 5(8) of the BASF SE Statutes. This applies in particular if, for capital increases in return for cash contributions, the issue price of the new shares is not substantially lower than the stock market price of BASF shares and the total number of shares issued under this authorization is not more than 10% of the stock of shares on the date of issue or, in eligible individual cases, to acquire companies or shares in companies in exchange for surrendering BASF shares.

At the Annual Shareholders' Meeting on April 27, 2012, the Board of Executive Directors was authorized to purchase up to 10% of the shares existing at the time of the resolution (10% of the company's share capital) until April 26, 2017. At the discretion of the Board of Executive Directors, the purchase can take place on the stock exchange or by way of a public purchase offer directed to all shareholders. The Board of Executive Directors is authorized to sell the repurchased company shares (a) through a stock exchange, (b) through a public offer directed to all shareholders and – with the approval of the Supervisory Board – to third parties, (c) for a cash payment that is not significantly lower than the stock exchange price at the time of sale and (d) for contributions in kind, particularly in connection with the acquisition of companies, parts of companies or shares in companies or in connection with mergers. In the cases specified under (c) and (d), the shareholders' subscription right is excluded. The Board of Executive Directors is furthermore authorized to redeem the shares bought back and to reduce the share capital by the proportion of the share capital accounted for by the redeemed shares.

Bonds issued by BASF SE grant the bearer the right to request early repayment of the bonds at nominal value if one person – or several persons acting in concert – hold or acquire a BASF SE share volume after the time of issuance which corresponds to more than 50% of the voting rights (change of control), and one of the rating agencies named in the bond's terms and conditions withdraws its rating of BASF SE or the bond, or reduces it to a noninvestment grade rating within 120 days after the change-of-control event.

In the event of a change of control, members of the Board of Executive Directors shall, under certain additional conditions, receive compensation (details of which are listed in the Compensation Report on page 146). A change of control is assumed when a shareholder informs BASF of a shareholding of at least 25% or the increase of such a holding. In addition, employees of BASF SE and its subsidiaries who are classed as senior executives will receive a severance payment if their contract of employment is terminated by BASF within 18 months of the occurrence of a change of control, provided the employee has not given cause for the termination. The employee whose service contract has been terminated in such a case will receive a maximum severance payment of 1.5 times the annual salary (fixed component) depending on the number of months that have passed since the change-of-control event.

The remaining specifications stipulated in Section 315(4) of the German Commercial Code refer to situations that are not applicable to BASF SE.

For more on bonds issued by BASF SE, see [basf.com/en/investor/bonds](http://basf.com/en/investor/bonds)

### Directors' and Officers' liability insurance

BASF SE has taken out liability insurance that covers the activities of members of the Board of Executive Directors and the Supervisory Board (D&O insurance). This policy provides for the level of deductibles for the Board of Executive Directors as prescribed by Section 93(2)(3) of the German Stock Corporation Act and for the level of deductibles for the Supervisory Board as recommended in Section 3.8(3) of the German Corporate Governance Code.

### Share ownership by Members of the Board of Executive Directors and the Supervisory Board

No member of the Board of Executive Directors or the Supervisory Board owns shares in BASF SE and related options or other derivatives that account for 1% or more of the share capital. Furthermore, the total volume of BASF SE shares and related financial instruments held by members of the Board of Executive Directors and the Supervisory Board accounts for less than 1% of the shares issued by the company.

### Share dealings of the Board of Executive Directors and Supervisory Board (Directors' Dealings under Section 15a of German Securities Trading Act)

In accordance with Section 15a of the German Securities Trading Act (*Wertpapierhandelsgesetz*), all members of the Board of Executive Directors and the Supervisory Board as well as certain members of their families are required to disclose the purchase or sale of BASF shares and other related rights to the Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) and to the company if transactions within the calendar year exceed the threshold of €5,000.

In 2015, a total of four purchases by members of the Board of Executive Directors and the Supervisory Board and members of their families subject to disclosure were reported as Directors' Dealings, involving between 338 and 10,500 BASF shares. The price per share was between \$75.99 and €85.92. The volume of the individual trades was between €28,184.13 and \$797,895.00. The disclosed share transactions are published on the website of BASF SE.

For more on securities transactions reported in 2015, see [basf.com/en/governance/sharedealings](http://basf.com/en/governance/sharedealings)

### Information on the auditor

The Annual Shareholders' Meeting of April 30, 2015, elected KPMG AG Wirtschaftsprüfungsgesellschaft as the auditor of the BASF Group Consolidated Financial Statements and Management's Report for the 2015 business year. KPMG is also auditor of the Financial Statements of BASF SE, and KPMG member firms audit the majority of companies included in the Consolidated Financial Statements. KPMG has been auditor of BASF SE since the 2006 Financial Statements. Hans-Dieter Krauß has been the responsible auditor since auditing the 2010 Financial Statements.

# Compliance

<p><b>Code of Conduct</b></p> <p>Forms core of our Compliance Program</p>	<p><b>More than 64,000</b></p> <p>Employees participated in compliance training</p>	<p><b>92 audits</b></p> <p>Conducted internally on compliance</p>
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With our Group-wide Compliance Program, we aim to ensure adherence to legal regulations and the company's internal guidelines. We have integrated compliance into our "We create chemistry" strategy. Our employee Code of Conduct firmly embeds these mandatory standards into everyday business. Members of the Board of Executive Directors are also expressly obligated to follow these principles.

## Compliance Program and Code of Conduct

- Compliance standards integrated into corporate values
- Regular compliance training for employees

Based on international standards, BASF's Compliance Program combines important laws and company-internal policies – themselves exceeding legal requirements – with external voluntary commitments to create a framework regulating how all BASF employees interact with business partners, officials, colleagues and society. At the core of our Compliance Program is the global, standardized Code of Conduct received by every employee. All employees and managers are obligated to adhere to its guidelines, which describe proper conduct not

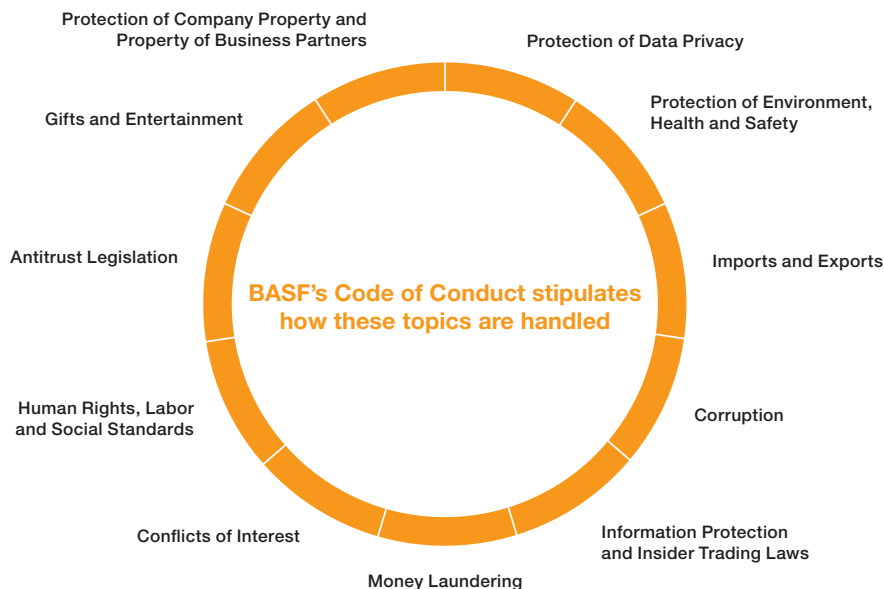
only in terms of corruption and antitrust legislation, but also topics like human rights, labor and social standards, conflicts of interest, trade control, and protection of data privacy.

Abiding by compliance standards is the foundation of responsible leadership. This has been expressly embedded in our values, where we state: "We strictly adhere to our compliance standards." We are convinced that compliance with these standards will not only prevent the disadvantages associated with violations, such as penalties and fines; we also view compliance as the right path toward securing our company's long-term success.

Our efforts are principally aimed at preventing violations from the outset. To this end, all employees are required within a prescribed time frame to take part in basic compliance training, refresher courses and special tutorials dealing with, for example, antitrust legislation or trade control regulations. Training takes place in different formats, including face-to-face training, e-learning or workshops. In addition, we introduced a new e-learning program on trade control in 2015, focusing on export controls and embargos. In total, more than 64,000 employees worldwide took part in around 70,000 hours of compliance training in 2015.

For more on the BASF Code of Conduct, see [basf.com/code\\_of\\_conduct](http://basf.com/code_of_conduct)

## BASF's Code of Conduct





## Compliance culture at BASF

We firmly believe that for corporate responsibility to be a success, there must be an active culture of living these guidelines within the company. This culture takes years to develop, and requires the consistent, reliable application of compliance standards. Because our Code of Conduct was introduced early on, these standards are already established and undisputed. In the Global Employee Survey conducted in 2015, the vast majority of our employees confirmed that their work environment places high value on proper conduct in alignment with internal company guidelines and standards. We consistently investigate any cases in which the answer to the corresponding question showed unit-specific anomalies.

## Monitoring adherence to our Compliance principles

- **Central role of Chief Compliance Officer and compliance officers**
- **50 external hotlines worldwide**
- **Numerous internal compliance audits**

BASF's Chief Compliance Officer (CCO) manages the implementation of our Compliance Management System, supported by 94 compliance officers worldwide. The CCO regularly reports to the Board of Executive Directors on progress in the program's implementation as well as on any significant findings. Furthermore, the CCO reports to the Supervisory Board's Audit Committee in at least one of its meetings each year on the status of the Compliance Program as well as any major developments. In the event of significant incidents, the Audit Committee is immediately informed by the Board of Executive Directors.

We particularly encourage our employees to actively and promptly seek guidance if in doubt. For this, they can consult not only their managers but also dedicated specialist departments and company compliance officers. We have also set up 50 external hotlines worldwide which our employees can turn to anonymously. We make sure that all concerns are processed and answered within a short amount of time.


In 2015, 357 calls and emails were received by our external hotlines (2014: 276). Concerns involved questions ranging from personnel management and handling of company property, to information on the behavior of business partners or human rights issues – such as labor and social standards. Increasing awareness was observed when it came to potential conflicts of interest. We launched case-specific investigations, in accordance with applicable law and internal regulations, into all cases of suspected misconduct that we became aware of. Confirmed violations were penalized, up to and including dismissal.

This involved making sure that the necessary action was taken in accordance with standardized company criteria. In the case of suspected corruption we reported to the relevant authorities in 2014, the penal proceedings against a former employee and the employee of a customer company did not confirm the corruption allegations.

BASF's Corporate Audit department monitors adherence to compliance principles, covering all areas in which compliance violations could occur. They check that employees uphold regulations and make sure that the established processes, procedures and monitoring tools are appropriate and sufficient to minimize potential risk or preclude violations in the first place. In 2015, 92 Group-wide audits of this kind were performed (2014: 104), predominantly in the areas of antitrust law, imports and exports, and gifts and entertainment. If compliance audits reveal a need to optimize procedures or hone control measures, we implement them immediately.

We introduced a new global guideline on April 1, 2015, on "Due Diligence with Business Partners." Based on this guideline, all of our business partners in sales and marketing are monitored for potential compliance risks. This is done by means of a checklist, a questionnaire distributed to the business partner, and an internet-based analysis; afterward, we document the results. We furthermore expect all suppliers to know of and act in accordance with our global Code of Conduct.

We support the United Nations' Guiding Principles on Business and Human Rights and are constantly working to enhance our internal guidelines and processes in keeping with these principles. For example, we established an interdisciplinary, BASF-internal work group on this topic in 2015 in order to pool responsibilities in this area. Also outside of our company, we support the respect of human rights and the fight against corruption: We are, for example; a founding member of the United Nations Global Compact. As a member of Transparency International Deutschland and the Partnering Against Corruption Initiative (PACI) of the World Economic Forum, we assist in the implementation of these organizations' objectives. As a member of the U.N. Global Compact LEAD, we report in accordance with the Blueprint for Corporate Sustainability Leadership.

 For more on human rights and labor and social standards, see [basf.com/human\\_rights](http://basf.com/human_rights)

 For more on suppliers, see page 94 onward



# Management and Supervisory Boards

## Board of Executive Directors

**There were eight members on the Board of Executive Directors of BASF SE as of December 31, 2015**

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### Dr. Kurt Bock

Chairman of the Board of Executive Directors  
Degree: Business Administration; 57 years old; 25 years at BASF

**Responsibilities:** Legal, Taxes, Insurance & Intellectual Property; Strategic Planning & Controlling; Communications & Government Relations; Global Executive Human Resources; Investor Relations; Compliance

**First appointed:** 2003, **Term expires:** 2021

### Dr. Martin Bruder Müller

Vice Chairman of the Board of Executive Directors  
Degree: Chemistry; 54 years old; 28 years at BASF

**Responsibilities:** Petrochemicals; Monomers; Intermediates; Process Research and Chemical Engineering; Corporate Technology & Operational Excellence; BASF New Business

**First appointed:** 2006, **Term expires:** 2021

### Dr. Hans-Ulrich Engel

Degree: Law; 56 years old; 28 years at BASF

**Responsibilities:** Finance; Oil & Gas; Procurement; Information Services & Supply Chain Operations; Corporate Controlling; Corporate Audit

**First appointed:** 2008, **Term expires:** 2021

#### **Internal memberships as defined in Section 100(2) of the German Stock Corporation Act:**

Wintershall Holding GmbH (Chairman of the Supervisory Board since May 1, 2015)  
Wintershall AG (Chairman of the Supervisory Board since May 1, 2015)

#### **Comparable German and non-German controlling bodies:**

Nord Stream AG (member of the Shareholders' Committee since May 1, 2015)

### Sanjeev Gandhi

Degrees: Chemical Engineering, Master of Business Administration (MBA); 49 years old; 22 years at BASF

**Responsibilities:** Greater China & Functions Asia Pacific; South & East Asia, ASEAN & Australia/New Zealand

**First appointed:** 2014, **Term expires:** 2018

### Michael Heinz

Degree: Business Administration (MBA); 51 years old; 32 years at BASF

**Responsibilities:** Dispersions & Pigments; Care Chemicals; Nutrition & Health; Performance Chemicals; Advanced Materials & Systems Research; Region South America; Perspectives

**First appointed:** 2011, **Term expires:** 2019

#### **Internal memberships as defined in Section 100(2) of the German Stock Corporation Act:**

BASF Coatings GmbH (member of the Supervisory Board until April 30, 2015)

### Dr. Harald Schwager

Degree: Chemistry; 55 years old; 28 years at BASF

**Responsibilities:** Construction Chemicals; Crop Protection; Bioscience Research; Region Europe

**First appointed:** 2008, **Term expires:** 2021

#### **Internal memberships as defined in Section 100(2) of the German Stock Corporation Act:**

Wintershall Holding GmbH (Chairman of the Supervisory Board until April 30, 2015)  
Wintershall AG (Chairman of the Supervisory Board until April 30, 2015)

#### **Comparable German and non-German controlling bodies:**

Nord Stream AG (member of the Shareholders' Committee until April 30, 2015)

### Wayne T. Smith

Degrees: Chemical Engineering, Business Administration (MBA); 55 years old; 12 years at BASF

**Responsibilities:** Catalysts; Coatings; Performance Materials; Market & Business Development North America; Regional Functions North America

**First appointed:** 2012, **Term expires:** 2020

### Margret Suckale

Degrees: Law, Business Administration (MBA); 59 years old; 7 years at BASF

**Responsibilities:** Engineering & Maintenance; Environment, Health & Safety; European Site & Verbund Management; Human Resources

**First appointed:** 2011, **Term expires:** 2017

#### **Comparable German and non-German controlling bodies:**

BASF Antwerpen N.V. (Chairwoman of the Administrative Council)

## The following member left the Board of Executive Directors on April 30, 2015

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### Dr. Andreas Kreimeyer

Degree: Biology; 60 years old; 29 years at BASF

**First appointed:** 2003, **Term expires:** 2015

#### **Internal memberships as defined in Section 100(2) of the German Stock Corporation Act:**

BASF Coatings GmbH (Chairman of the Supervisory Board until April 30, 2015)

# Supervisory Board

## In accordance with the Statutes, the Supervisory Board of BASF SE comprises twelve members

The term of office of the Supervisory Board commenced following the Annual Shareholders' Meeting on May 2, 2014, in which the shareholder representatives on the Supervisory Board were elected. It terminates upon conclusion of the Annual Shareholders' Meeting which resolves on the discharge of members of the Supervisory Board for the fourth complete financial year after the term of office commenced; this is the Annual Shareholders' Meeting in 2019. The Supervisory Board comprises the following members:

### Dr. Jürgen Hambrecht, Neustadt an der Weinstraße, Germany

Chairman of the Supervisory Board of BASF SE  
Former Chairman of the Board of Executive Directors of BASF SE (until May 2011)

**Member of the Supervisory Board since:** May 2, 2014

#### Supervisory Board memberships (excluding internal memberships):

Fuchs Petrolub SE (Chairman)  
Trumpf GmbH & Co. KG (Chairman)  
Daimler AG (member)

### Michael Diekmann, Munich, Germany

Vice Chairman of the Supervisory Board of BASF SE  
Former Chairman of the Board of Management of Allianz SE

**Member of the Supervisory Board since:** May 6, 2003

#### Supervisory Board memberships (excluding internal memberships):

Fresenius Management SE (member)  
Fresenius SE & CO. KGaA (Vice Chairman)  
Linde AG (Vice Chairman)  
Siemens AG (member)

#### Comparable German and non-German controlling bodies:

Allianz Australia Ltd. (non-executive Director)  
Allianz France S.A. (Vice Chairman of the Administrative Council until February 9, 2015)  
Allianz S.p.A. (member of the Administrative Council until February 6, 2015)

### Robert Oswald, Altrip, Germany

Vice Chairman of the Supervisory Board of BASF SE  
Chairman of the Works Council of the Ludwigshafen site of BASF SE and Chairman of BASF's Joint Works Council

**Member of the Supervisory Board since:** October 1, 2000

### Ralf-Gerd Bastian, Neuhofen, Germany

Member of the Works Council of the Ludwigshafen site of BASF SE

**Member of the Supervisory Board since:** May 6, 2003

### Dame Alison Carnwath DBE, Sidmouth, England

Senior Advisor Evercore Partners

**Member of the Supervisory Board since:** May 2, 2014

#### Comparable German and non-German controlling bodies:

Zurich Insurance Group AG (independent member of the Administrative Council)  
Zürich Versicherungs-Gesellschaft AG (independent member of the Administrative Council)  
Living Bridge Equity Partners LLP (non-executive Chairman of the Partnership Board)  
Land Securities Group plc (non-executive Chairman of the Board of Directors)  
PACCAR Inc. (independent member of the Board of Directors)  
Coller Capital Ltd. (non-executive member of the Board of Directors since May 2015)

### Wolfgang Daniel, Heidelberg, Germany

Vice Chairman of the Works Council of the Ludwigshafen site of BASF SE  
**Member of the Supervisory Board since:** September 9, 1996

### Prof. Dr. François Diederich, Zurich, Switzerland

Professor at the Swiss Federal Institute of Technology, Zurich, Switzerland  
**Member of the Supervisory Board since:** May 19, 1998

### Franz Fehrenbach, Stuttgart, Germany

Chairman of the Supervisory Board of Robert Bosch GmbH  
**Member of the Supervisory Board since:** January 14, 2008

#### Supervisory Board memberships (excluding internal memberships):

Robert Bosch GmbH (Chairman)  
Stihl AG (Vice Chairman)  
Linde AG (member)

#### Comparable German and non-German controlling bodies:

Robert Bosch Corporation (member of the Board of Directors)  
Stihl Holding AG & Co. KG (member of the Advisory Board)

### Francesco Grioli, Ronnenberg, Germany

Regional manager of the Rhineland-Palatinate/Saarland branch of the Mining, Chemical and Energy Industries Union

**Member of the Supervisory Board since:** May 2, 2014

#### Supervisory Board memberships (excluding internal memberships):

Gerresheimer AG (Vice Chairman)  
Villeroy & Boch AG (member)

#### Comparable German and non-German controlling bodies:

V & B Fliesen GmbH (member)  
Steag New Energies GmbH (Vice Chairman)

### Anke Schäferkordt, Cologne, Germany

Member of the Executive Board of Bertelsmann SE & Co. KGaA  
Co-CEO of RTL Group S.A.  
Chief Executive Officer of RTL Television GmbH

**Member of the Supervisory Board since:** December 17, 2010

#### Supervisory Board memberships (excluding internal memberships):

Software AG (member until May 13, 2015)

#### Comparable German and non-German controlling bodies:

Groupe M6 (member of the Supervisory Board since April 28, 2015)

### Denise Schellemans, Brecht, Belgium

Full-time trade union delegate

**Member of the Supervisory Board since:** January 14, 2008

### Michael Vassiliadis, Hannover, Germany

Chairman of the Mining, Chemical and Energy Industries Union

**Member of the Supervisory Board since:** August 1, 2004

#### Supervisory Board memberships (excluding internal memberships):

K+S Aktiengesellschaft (Vice Chairman)  
Steag GmbH (Vice Chairman)  
Evonik Industries AG (Vice Chairman)  
RAG AG (Vice Chairman)  
RAG DSK AG (Vice Chairman)

# Compensation report

This report outlines the main principles of the compensation for the Board of Executive Directors and discloses the amount and structure of the compensation of each Board member. Furthermore, it provides information on end-of-service undertakings with respect to Board members, as well as information on the compensation of Supervisory Board members.

## Compensation of the Board of Executive Directors

This report meets the disclosure requirements of the German Commercial Code, supplemented by the additional requirements based on the German Act on Disclosure of Management Board Remuneration (*Vorstandsvergütungs-Offenlegungsgesetz*) as well as the German Act on the Appropriateness of Management Board Remuneration (*Gesetz zur Angemessenheit der Vorstandsvergütung*), and is aligned with the recommendations of the German Corporate Governance Code (GCGC) in its version of May 5, 2015.

Based on a proposal by the Personnel Committee, the Supervisory Board determines the amount and structure of compensation of members of the Board of Executive Directors.

The amount and structure of compensation is determined by the company's size, complexity and financial position, as well as the performance of the Board of Executive Directors. Internal and external appropriateness of the Board's compensation is reviewed by external auditors on a regular basis. Globally operating companies based in Europe serve as an external reference. For internal comparison, compensation is considered in total as well as over time, especially for senior executives.

 For more on the Supervisory Board and its committees, see page 139 and from page 149 onward

## Principles

The compensation of the Board of Executive Directors is designed to promote sustainable corporate development. It is marked by a pronounced variability in relation to the performance of the Board of Executive Directors and BASF Group's return on assets.

## The compensation of the Board of Executive Directors comprises:

1. Fixed salary
2. Annual variable compensation
3. Share-price-based, long-term incentive (LTI) program
4. Nonmonetary compensation and other additional compensation
5. Company pension benefits

## The compensation components are shown in detail below:

1. The **fixed salary** is a set amount of yearly compensation paid out in even installments. It is regularly reviewed by the Supervisory Board and adjusted, if necessary.

2. The **actual annual variable compensation (variable bonus)** is based on the performance of the entire Board of Executive Directors and the return on assets. The return on assets is also used to determine the variable compensation of all other employee groups.

In order to assess the sustainable performance of the Board of Executive Directors, each year the Supervisory Board sets a target agreement with the entire Board of Executive Directors that primarily contains medium and long-term goals.

The Supervisory Board assesses the goal achievement of the current year and the previous two years. A performance factor with a value between 0 and 1.5 is determined on the basis of the goal achievement ascertained by the Supervisory Board. The variable bonus for the prior fiscal year is payable after the Annual Shareholders' Meeting.

Board members, like other employee groups, may contribute a portion of their annual variable bonus into a deferred compensation program. For members of the Board of Executive Directors, as well as for all other senior executives of the BASF Group in Germany, the maximum amount that can be contributed to this program is €30,000. Board members have taken advantage of this offer to varying degrees.


3. A **share-price-based, long-term incentive (LTI) program** exists for members of the Board of Executive Directors. It is also offered to all other senior executives of BASF Group. Members of the Board of Executive Directors are subject to a stricter set of rules than are contained in the general program conditions: They are required to participate in the program with at least 10% of their variable bonus. This mandatory investment consisting of BASF shares is subject to a holding period of four years. For any additional voluntary investment of up to 20% of the variable bonus, the general holding period of two years applies. Members of the Board of Executive Directors may only exercise their options at least four years after they have been granted (vesting period). This compensation component is limited, too, by the structure of the LTI program as well as by the upper limit on the options' exercise value. Because the exercise period spans multiple years, it can occur that gains allocated from several LTI program years all accumulate into one year; there can also be years in which no gains are allocated.

 For more on share ownership by members of the Board of Executive Directors, see page 135

For more on the LTI program, see page 47 and from page 218 onward

4. Included in **nonmonetary compensation and other additional compensation (fringe benefits)** are the following: delegation allowances, accident insurance premiums and other similar benefits, and benefits from means of transport and security measures provided by the company. The members of the Board did not receive loans or advances from the company in 2015.

The members of the Board are covered by a directors' and officers' liability insurance (D&O insurance) concluded by the company, which includes a deductible.

 For more on the D&O insurance of the Board of Executive Directors, see page 135

5. As part of the **pension benefits** granted to the Board of Executive Directors (Board Performance Pension), company pension benefits are intended to accrue annual pension units. The method used to determine the amount of the pension benefits generally corresponds to that used for the other senior executives of the BASF Group in Germany. The method is designed such that both the performance of the company and the progression of the individual Board member's career significantly affect the pension entitlement.

The annual pension benefits accruing to Board members in a given reporting year (pension unit) are composed of a fixed and a variable component. The fixed component is calculated by multiplying the annual fixed salary above the Social Security Contribution Ceiling by 32% (contribution factor). The variable component of the pension unit is the result of multiplying the fixed component with a factor that is dependent on the return on assets in the reporting year and the performance factor, which is decisive for the variable bonus. The amount resulting from the fixed and the variable component is converted into a pension unit (lifelong pension) using actuarial factors based on an actuarial interest rate (5%), the probability of death, invalidity and bereavement according to Heubeck Richttafeln, 2005G (modified), and an assumed pension increase (at least 1% per annum).

The sum of the pension units accumulated over the reporting years determines the respective Board member's pension benefit in the event of a claim. This is the amount that is payable upon retirement. Pension benefits take effect at the end of service after completion of the member's 60th year of age, or on account of disability or death. Pension payments are reviewed on a regular basis and adjusted by at least 1% each year.

The pension units also include survivor benefits. Upon the death of an active or former member of the Board, the surviving spouse receives a survivor pension amounting to 60% of the Board member's pension entitlement. The orphan pension amounts to 10% for each half-orphan, 33% for an orphan, 25% each for two orphans and 20% each for three or more orphans of the pension entitlement of the deceased (former) Board member. Total survivor benefits may not exceed 75% of the Board member's pension entitlement. If the survivor pensions exceed the upper limit, they will be proportionately reduced.

Board members are members of the BASF Pensionskasse VVaG, as are generally all employees of BASF SE. Contributions and benefits are determined by the Statutes of the BASF Pensionskasse VVaG and the General Conditions of Insurance.

## Amount of total compensation

The tables on pages 142 to 145 show the granted and allocated compensation as well as service cost of each member of the Board of Executive Directors in accordance with Section 4.2.5(3) of the German Corporate Governance Code (GCGC) in its version of May 5, 2015.

### Compensation granted in accordance with the German Corporate Governance Code (GCGC)

The table "Compensation granted in accordance with GCGC" shows: fixed salary, fringe benefits, annual variable target compensation, LTI program measured at fair value at the grant date, and service cost. The individual compensation components are supplemented by individually attainable minimum and maximum compensation.

Furthermore, a reconciliation statement for total compensation to be reported is provided below the table "Compensation granted in accordance with GCGC" due to the disclosures required by Section 314(1)(6a) of the German Commercial Code (HGB) in connection with the German Accounting Standard Number 17 (GAS 17).

The fixed salary and annual variable target compensation were last adjusted on January 1, 2014.

Compensation granted in accordance with the German Corporate Governance Code (GCGC) (in thousand €)

	Dr. Kurt Bock				Dr. Martin Brudermüller			
	Chairman of the Board of Executive Directors				Vice Chairman of the Board of Executive Directors			
	2014	2015	2015 (min)	2015 (max)	2014	2015	2015 (min)	2015 (max)
Fixed salary	1,300	1,300	1,300	1,300	864 <sup>1</sup>	866 <sup>1</sup>	866 <sup>1</sup>	866 <sup>1</sup>
Fringe benefits	173	215	215	215	754 <sup>2</sup>	389 <sup>2</sup>	389 <sup>2</sup>	389 <sup>2</sup>
<b>Total</b>	<b>1,473</b>	<b>1,515</b>	<b>1,515</b>	<b>1,515</b>	<b>1,618</b>	<b>1,255</b>	<b>1,255</b>	<b>1,255</b>
Annual variable target compensation	2,600	2,600	0	4,000	1,729	1,729	0	2,660
Multiple-year variable compensation	1,299	884	0	4,020	864	588	0	2,673
LTI program 2014 (2014–2022)	1,299	–	–	–	864	–	–	–
LTI program 2015 (2015–2023)	–	884	0	4,020	–	588	0	2,673
<b>Total</b>	<b>5,372</b>	<b>4,999</b>	<b>1,515</b>	<b>9,535</b>	<b>4,211</b>	<b>3,572</b>	<b>1,255</b>	<b>6,588</b>
Service cost	820	605	605	605	587	529	529	529
<b>Total compensation in accordance with GCGC</b>	<b>6,192</b>	<b>5,604</b>	<b>2,120</b>	<b>10,140</b>	<b>4,798</b>	<b>4,101</b>	<b>1,784</b>	<b>7,117</b>
<b>Reconciliation reporting of total compensation pursuant to Section 314(1)(6a) HGB in connection with GAS 17</b>								
less granted annual variable target compensation	(2,600)	(2,600)			(1,729)	(1,729)		
plus allocated actual annual variable compensation	2,680	2,046			1,782	1,361		
less service cost	(820)	(605)			(587)	(529)		
<b>Total compensation</b>	<b>5,452</b>	<b>4,445</b>			<b>4,264</b>	<b>3,204</b>		
<b>Dr. Andreas Kreimeyer</b>								
Until April 30, 2015								
	2014	2015	2015 (min)	2015 (max)	2014	2015	2015 (min)	2015 (max)
Fixed salary	650	217	217	217	650	650	650	650
Fringe benefits	96	55	55	55	106	155	155	155
<b>Total</b>	<b>746</b>	<b>272</b>	<b>272</b>	<b>272</b>	<b>756</b>	<b>805</b>	<b>805</b>	<b>805</b>
Annual variable target compensation	1,300	433	0	667	1,300	1,300	0	2,000
Multiple-year variable compensation	649	368	0	1,674	649	442	0	2,010
LTI program 2014 (2014–2022)	649	–	–	–	649	–	–	–
LTI program 2015 (2015–2023)	–	368	0	1,674	–	442	0	2,010
<b>Total</b>	<b>2,695</b>	<b>1,073</b>	<b>272</b>	<b>2,613</b>	<b>2,705</b>	<b>2,547</b>	<b>805</b>	<b>4,815</b>
Service cost	478	132	132	132	457	399	399	399
<b>Total compensation in accordance with GCGC</b>	<b>3,173</b>	<b>1,205</b>	<b>404</b>	<b>2,745</b>	<b>3,162</b>	<b>2,946</b>	<b>1,204</b>	<b>5,214</b>
<b>Reconciliation reporting of total compensation pursuant to Section 314(1)(6a) HGB in connection with GAS 17</b>								
less granted annual variable target compensation	(1,300)	(433)			(1,300)	(1,300)		
plus allocated actual annual variable compensation	1,340	341			1,340	1,023		
less service cost	(478)	(132)			(457)	(399)		
<b>Total compensation</b>	<b>2,735</b>	<b>981</b>			<b>2,745</b>	<b>2,270</b>		
<b>Dr. Harald Schwager</b>								

<sup>1</sup> Payment was made partly in local currency abroad based on a theoretical net salary in Germany.

<sup>2</sup> Includes payments to cover additional costs of transfers, such as assumption of prevailing local rental fees.





The table below shows the options granted to the Board of Executive Directors on July 1 of both reporting years.

#### Number of options granted

	2015	2014
Dr. Kurt Bock	36,248	41,412
Dr. Martin Bruder Müller	24,104	27,536
Dr. Hans-Ulrich Engel	18,124	20,704
Sanjeev Gandhi	7,000	- <sup>1</sup>
Michael Heinz	18,124	20,704
Dr. Andreas Kreimeyer	15,092 <sup>2</sup>	20,704
Dr. Harald Schwager	18,124	20,704
Wayne T. Smith	18,124	20,704
Margret Suckale	18,124	20,704
<b>Total</b>	<b>173,064</b>	<b>193,172</b>

<sup>1</sup> Sanjeev Gandhi was not yet a member of the Board of Executive Directors on July 1, 2014.

<sup>2</sup> Dr. Andreas Kreimeyer was entitled to proportional participation in the LTI program on the options grant date of July 1, 2015, due to his departure from the Board of Executive Directors on April 30, 2015.

#### Compensation allocated in accordance with the German Corporate Governance Code (GCGC)

The "Compensation allocated in accordance with the GCGC" shown for 2014 and 2015 is comprised of the fixed and variable compensation components actually allocated, plus the service cost calculated for each member of the Board of Executive Directors in the reporting years even though this does not actually represent payment in the narrower sense.

#### Compensation allocated in accordance with the German Corporate Governance Code (GCGC) (in thousand €)

	Dr. Kurt Bock		Dr. Martin Bruder Müller		Dr. Hans-Ulrich Engel	
	2015	2014	2015	2014	2015	2014
	Chairman of the Board of Executive Directors		Vice Chairman of the Board of Executive Directors			
Fixed salary	1,300	1,300	866 <sup>2</sup>	864 <sup>2</sup>	662 <sup>2</sup>	616 <sup>2</sup>
Fringe benefits	215	173	389 <sup>3</sup>	754 <sup>3</sup>	412 <sup>3</sup>	812 <sup>3</sup>
<b>Total</b>	<b>1,515</b>	<b>1,473</b>	<b>1,255</b>	<b>1,618</b>	<b>1,074</b>	<b>1,428</b>
Actual annual variable compensation <sup>1</sup>	2,046	2,680	1,361	1,782	1,023	1,340
Multiple-year variable compensation	2,683 <sup>5</sup>	2,825 <sup>4</sup>	-	-	2,071 <sup>5</sup>	1,897 <sup>4</sup>
LTI program 2006 (2006–2014)	-	2,825 <sup>4</sup>	-	-	-	1,897 <sup>4</sup>
LTI program 2007 (2007–2015)	2,683 <sup>5</sup>	-	-	-	2,071 <sup>5</sup>	-
LTI program 2008 (2008–2016)	-	-	-	-	-	-
LTI program 2009 (2009–2017)	-	-	-	-	-	-
LTI program 2010 (2010–2018)	-	-	-	-	-	-
LTI program 2011 (2011–2019)	-	-	-	-	-	-
<b>Total</b>	<b>6,244</b>	<b>6,978</b>	<b>2,616</b>	<b>3,400</b>	<b>4,168</b>	<b>4,665</b>
Service cost	605	820	529	587	402	482
<b>Total compensation in accordance with GCGC</b>	<b>6,849</b>	<b>7,798</b>	<b>3,145</b>	<b>3,987</b>	<b>4,570</b>	<b>5,147</b>

<sup>1</sup> The basis for the allocated actual annual variable compensation is the return on assets adjusted for special items and the performance factor. This includes contributions made to the deferred compensation program.

<sup>2</sup> Payment was made partly in local currency abroad based on a theoretical net salary in Germany.

<sup>3</sup> Includes payments to cover additional costs of transfers, such as assumption of prevailing local rental fees.

<sup>4</sup> At the end of the regular term of the LTI program 2006, exercise gains which were realized in 2010 or 2011 were allocated to Dr. Kurt Bock and Dr. Hans-Ulrich Engel in 2014 in accordance with the special conditions of the U.S. LTI program.

<sup>5</sup> At the end of the regular term of the LTI program 2007, exercise gains which were realized in 2009, 2012 or 2013 were allocated to Dr. Kurt Bock, Dr. Hans-Ulrich Engel and Wayne T. Smith in 2015 in accordance with the special conditions of the U.S. LTI program.

**Compensation allocated in accordance with the German Corporate Governance Code (GCGC) (in thousand €)**

	Sanjeev Gandhi		Michael Heinz		Dr. Andreas Kreimeyer	
	Since December 1, 2014				Until April 30, 2015	
	2015	2014	2015	2014	2015	2014
Fixed salary	514 <sup>2</sup>	54	650	650	217	650
Fringe benefits	598 <sup>3</sup>	5	150	168	55	96
<b>Total</b>	<b>1,112</b>	<b>59</b>	<b>800</b>	<b>818</b>	<b>272</b>	<b>746</b>
Actual annual variable compensation <sup>1</sup>	1,023	112	1,023	1,340	341	1,340
Multiple-year variable compensation	–	–	–	–	686	437
LTI program 2006 (2006–2014)	–	–	–	–	–	–
LTI program 2007 (2007–2015)	–	–	–	–	–	–
LTI program 2008 (2008–2016)	–	–	–	–	–	–
LTI program 2009 (2009–2017)	–	–	–	–	–	–
LTI program 2010 (2010–2018)	–	–	–	–	686	437
LTI program 2011 (2011–2019)	–	–	–	–	–	–
<b>Total</b>	<b>2,135</b>	<b>171</b>	<b>1,823</b>	<b>2,158</b>	<b>1,299</b>	<b>2,523</b>
Service cost	489	37	421	445	132	478
<b>Total compensation in accordance with GCGC</b>	<b>2,624</b>	<b>208</b>	<b>2,244</b>	<b>2,603</b>	<b>1,431</b>	<b>3,001</b>

	Dr. Harald Schwager		Wayne T. Smith		Margret Suckale	
	2015	2014	2015	2014	2015	2014
Fixed salary	650	650	668 <sup>2</sup>	650	650	650
Fringe benefits	155	106	256 <sup>3</sup>	583 <sup>3</sup>	80	71
<b>Total</b>	<b>805</b>	<b>756</b>	<b>924</b>	<b>1,233</b>	<b>730</b>	<b>721</b>
Actual annual variable compensation <sup>1</sup>	1,023	1,340	1,023	1,340	1,023	1,340
Multiple-year variable compensation	–	–	151 <sup>5</sup>	–	–	–
LTI program 2006 (2006–2014)	–	–	–	–	–	–
LTI program 2007 (2007–2015)	–	–	151 <sup>5</sup>	–	–	–
LTI program 2008 (2008–2016)	–	–	–	–	–	–
LTI program 2009 (2009–2017)	–	–	–	–	–	–
LTI program 2010 (2010–2018)	–	–	–	–	–	–
LTI program 2011 (2011–2019)	–	–	–	–	–	–
<b>Total</b>	<b>1,828</b>	<b>2,096</b>	<b>2,098</b>	<b>2,573</b>	<b>1,753</b>	<b>2,061</b>
Service cost	399	457	478	477	326	391
<b>Total compensation in accordance with GCGC</b>	<b>2,227</b>	<b>2,553</b>	<b>2,576</b>	<b>3,050</b>	<b>2,079</b>	<b>2,452</b>

<sup>1</sup> The basis for the allocated actual annual variable compensation is the return on assets adjusted for special items and the performance factor. This includes contributions made to the deferred compensation program.

<sup>2</sup> Payment was made partly in local currency abroad based on a theoretical net salary in Germany.

<sup>3</sup> Includes payments to cover additional costs of transfers, such as assumption of prevailing local rental fees.

<sup>4</sup> At the end of the regular term of the LTI program 2006, exercise gains which were realized in 2010 or 2011 were allocated to Dr. Kurt Bock and Dr. Hans-Ulrich Engel in 2014 in accordance with the special conditions of the U.S. LTI program.

<sup>5</sup> At the end of the regular term of the LTI program 2007, exercise gains which were realized in 2009, 2012 or 2013 were allocated to Dr. Kurt Bock, Dr. Hans-Ulrich Engel and Wayne T. Smith in 2015 in accordance with the special conditions of the U.S. LTI program.

### Accounting valuation of multiple-year variable compensation (LTI programs)

While the options granted had resulted in a gain for BASF in 2014 – except in the case of Dr. Andreas Kreimeyer – they led to an expense in 2015. This expense refers to the total of all options from the LTI programs 2007 to 2015 and is calculated as the difference in the value of the options on December 31, 2015, compared with the value on December 31, 2014, considering the options exercised and granted in 2015. The value of the options is based primarily on the development of the BASF share price and its relative performance compared with the benchmark index specified for the LTI programs 2007 to 2015. Because the value of options on December 31, 2015,

was greater than that of December 31, 2014, an expense rather than a gain arose for 2015.

The expenses reported below are purely accounting figures which do not equate with the allocated actual gains should options be exercised. Each member of the Board may decide individually on the timing and scope of the exercise of options of the LTI programs, while taking into account the terms and conditions of the program.

The expenses for 2015 relating to all options issued were as follows: Dr. Kurt Bock €1,058 thousand (2014: gain of €97 thousand); Dr. Martin Brudermüller €788 thousand (2014: gain of €333 thousand); Dr. Hans-Ulrich Engel €660 thousand (2014: gain of €90 thousand); Sanjeev Gandhi €17 thousand; Michael Heinz €517 thousand (2014: gain of €146 thousand);

Dr. Andreas Kreimeyer €1,023 thousand (2014: expense of €446 thousand); Dr. Harald Schwager €642 thousand (2014: gain of €388 thousand); Wayne T. Smith €616 thousand (2014: gain of €165 thousand); and Margret Suckale €419 thousand (2014: gain of €145 thousand).

For more on the LTI program, see page 47 and from page 218 onward

## Pension benefits

The values for service cost incurred in 2015 contain service cost for BASF Pensionskasse VVaG and Board Performance Pension. Service cost for the members of the Board of Executive Directors is shown individually in the tables "Compensation granted in accordance with GCGC" and "Compensation allocated in accordance with GCGC."

The present value of pension benefits (defined benefit obligation) is an accounting figure for the entitlements that the Board members have accumulated in their years of service at BASF. The defined benefit obligations up to and including 2015 were as follows: Dr. Kurt Bock €15,684 thousand (2014: €18,571 thousand); Dr. Martin Brudermüller €13,148 thousand (2014: €13,259 thousand); Dr. Hans-Ulrich Engel €9,068 thousand (2014: €10,165 thousand); Sanjeev Gandhi €1,588 thousand (2014: €1,193 thousand); Michael Heinz €8,226 thousand (2014: €8,295 thousand); Dr. Andreas Kreimeyer €13,502 thousand (2014: €14,582 thousand); Dr. Harald Schwager €9,157 thousand (2014: €9,680 thousand); Wayne T. Smith €2,355 thousand (2014: €1,933 thousand); and Margret Suckale €3,518 thousand (2014: €3,290 thousand).

## End-of-service benefits

In the event that a member of the Board of Executive Directors retires from employment before the age of 60, either because their appointment was not extended or was revoked for an important reason, they are entitled to pension benefits if they have served on the Board for at least ten years or if the time needed to reach legal retirement age is less than ten years. The company is entitled to offset compensation received for any other work done against pension benefits until the legal retirement age is reached.

The following applies to end of service due to a change-of-control event: A change-of-control event, in terms of this provision, occurs when a shareholder informs BASF of a shareholding of at least 25%, or the increase of such a holding. If a Board member's appointment is revoked within one year following a change-of-control event, the Board member will receive the contractually agreed payments for the remaining contractual term of office as a one-off payment (fixed salary and annual variable target compensation). The Board member may also receive the fair value of the option rights acquired in connection with the LTI program within a period of three months or may continue to hold the existing rights under the terms of the program. For the determination of the accrued pension benefits from the Board Performance Pension, the time up to the regular expiry of office is taken into consideration.

There is a general limit on severance pay (severance payment cap) for all Board members. Accordingly, payments made to a Board member upon premature termination of their contract, without serious cause, may not exceed the value of two years' compensation, including fringe benefits, nor compensate more than the remaining term of the contract. The severance payment cap is to be calculated on the basis of the total compensation for the past business year and, if appropriate, also the expected total compensation for the current business year. If the appointment to the Board of Executive Directors is prematurely terminated as the result of a change-of-control event, the payments may not exceed 150% of the severance compensation cap.

## Former members of the Board of Executive Directors

Total compensation for previous Board members and their surviving dependents amounted to €10.4 million in 2015 (2014: €6.5 million). This figure also contains payments that previous Board members have themselves financed through the deferred compensation program and the expense or gain for 2015 relating to options that previous members of the Board still hold from the time of their active service period.

The continuation of the options that have not yet been exercised at the time of retirement, along with the continuation of the associated holding period for individual investment in BASF shares under the conditions of the program, is intended in order to particularly emphasize how sustainability is incorporated into the compensation for the Board members. Pension provisions for previous Board members and their surviving dependents amounted to €126.5 million (2014: €143.5 million).

## Compensation of Supervisory Board members

The disclosure of compensation of the Supervisory Board is based on the German Commercial Code and is aligned with the recommendations of the German Corporate Governance Code (GCGC). The compensation of the Supervisory Board is regulated by the Statutes of BASF SE passed by the Annual Shareholders' Meeting.

Each member of the Supervisory Board receives an annual fixed compensation of €60,000 and a performance-related variable compensation for each full €0.01 by which the earnings per share of the BASF Group, as declared in the BASF Group Consolidated Financial Statements for the year for which the remuneration is paid, exceeds the minimum earnings per share. For the 2015 business year, minimum earnings per share amounted to €1.70 (2014: €1.65). The performance-related variable remuneration is €800 for each €0.01 of earnings per share up to an earnings per share of €2.45, €600 for each further €0.01 of earnings per share up to an earnings per share of €2.95, and €400 for each €0.01 beyond this. The minimum earnings per share and the corresponding thresholds shall increase by €0.05 for each subsequent business year. The performance-related variable compensation is limited to a maximum amount of €120,000.

Based on the earnings per share of €4.34 published in the BASF Group Consolidated Financial Statements 2015, the performance-related compensation reached the maximum amount of €120,000 (2014: €120,000).

The chairman of the Supervisory Board receives two-and-a-half times and a vice chairman one-and-a-half times the compensation of an ordinary member. Members of the Supervisory Board who are members of a committee, except for the Nomination Committee, receive a further fixed compensation for this purpose in the amount of €12,500. For the Audit Committee, the further fixed compensation is €50,000. The chairman of a committee shall receive twice and a vice chairman one-and-a-half times the further fixed compensation.

The company reimburses members of the Supervisory Board for out-of-pocket expenses and value-added tax to be

paid with regard to their activities as members of the Supervisory Board or of a committee. The company further grants the members of the Supervisory Board a fee of €500 for attending a meeting of the Supervisory Board or one of its committees to which they belong and includes the performance of the duties of the members of the Supervisory Board in the cover of a directors' and officers' liability insurance (D&O insurance) concluded by it, which includes a deductible.

For more on the D&O insurance of the Supervisory Board, see page 135

Total compensation of the Supervisory Board for activities in 2015, including attendance fees, was around €3 million (2014: around €3 million). The compensation of the individual Supervisory Board members was as follows.

#### Compensation of the Supervisory Board of BASF SE (in thousand €)

	Fixed salary		Performance-related variable compensation		Compensation for committee memberships		Total compensation	
	2015	2014	2015	2014	2015	2014	2015	2014
Dr. Jürgen Hambrecht, Chairman since May 2, 2014 <sup>1,5</sup>	150.0	100.0	300.0	200.0	31.3	16.7	481.3	316.7
Dr. h. c. Eggert Voscherau, Chairman until May 2, 2014 <sup>1</sup>	–	62.5	–	125.0	–	10.4	–	197.9
Michael Diekmann, Vice Chairman <sup>2,6</sup>	90.0	90.0	180.0	180.0	17.2	12.5	287.2	282.5
Robert Oswald, Vice Chairman <sup>2,7</sup>	90.0	90.0	180.0	180.0	15.6	12.5	285.6	282.5
Ralf-Gerd Bastian <sup>4</sup>	60.0	60.0	120.0	120.0	50.0	50.0	230.0	230.0
Dame Alison Carnwath DBE, Supervisory Board member since May 2, 2014 <sup>3,7</sup>	60.0	40.0	120.0	80.0	103.1	66.7	283.1	186.7
Wolfgang Daniel	60.0	60.0	120.0	120.0	–	–	180.0	180.0
Prof. Dr. François Diederich	60.0	60.0	120.0	120.0	–	–	180.0	180.0
Franz Fehrenbach <sup>4</sup>	60.0	60.0	120.0	120.0	50.0	50.0	230.0	230.0
Francesco Grioli, Supervisory Board member since May 2, 2014	60.0	40.0	120.0	80.0	–	–	180.0	120.0
Max Dietrich Kley, Supervisory Board member until May 2, 2014 <sup>3</sup>	–	25.0	–	50.0	–	41.7	–	116.7
Anke Schäferkordt	60.0	60.0	120.0	120.0	–	–	180.0	180.0
Denise Schellemans	60.0	60.0	120.0	120.0	–	–	180.0	180.0
Ralf Sikorski, Supervisory Board member until May 2, 2014	–	25.0	–	50.0	–	–	–	75.0
Michael Vassiliadis <sup>2,4,7</sup>	60.0	60.0	120.0	120.0	65.6	62.5	245.6	242.5
<b>Total</b>	<b>870.0</b>	<b>892.5</b>	<b>1,740.0</b>	<b>1,785.0</b>	<b>332.8</b>	<b>323.0</b>	<b>2,942.8</b>	<b>3,000.5</b>

<sup>1</sup> Chairman of the Personnel Committee

<sup>2</sup> Member of the Personnel Committee

<sup>3</sup> Chairwoman/Chairman of the Audit Committee

<sup>4</sup> Member of the Audit Committee

<sup>5</sup> Chairman of the Strategy Committee (since October 1, 2015)

<sup>6</sup> Vice Chairman of the Strategy Committee (since October 1, 2015)

<sup>7</sup> Member of the Strategy Committee (since October 1, 2015)

Compensation for Supervisory Board membership and membership of Supervisory Board committees is payable after the Annual Shareholders' Meeting, which approves the Consolidated Financial Statements upon which the variable compensation is based. Accordingly, compensation relating to the year 2015 will be paid following the Annual Shareholders' Meeting on April 29, 2016.

In 2015, as in 2014, the company paid the Supervisory Board member Prof. Dr. François Diederich a total of CHF 38,400 (2015: approximately €36,000; 2014: approxi-

mately €31,600) for consulting work in the area of chemical research based on a consulting contract approved by the Supervisory Board.

Beyond this, no other Supervisory Board members received any compensation in 2015 for services rendered personally, in particular, the rendering of advisory and agency services.

For more on share ownership by members of the Supervisory Board, see page 135

## Report of the Supervisory Board



*Dear Shareholders,*

For our anniversary in 2015 celebrating BASF's 150 years of existence, we had expected more favorable conditions. Over the course of the year, the business environment deteriorated as political and macroeconomic challenges increased. Oil prices and growth both dropped sharply. Sales and earnings fell in this difficult environment, primarily from the divestiture of our natural gas trading and storage business; cash flow was increased. The entrepreneurially demanding journey to further shape the "We create chemistry" strategy will be continued, and has the full support of the Supervisory Board.

### **Monitoring and consultation in an ongoing dialog with the Board of Executive Directors**

In 2015, the Supervisory Board of BASF SE exercised its duties as required by law and the Statutes with the utmost care. We regularly monitored the management of the Board of Executive Directors and provided advice on the company's strategic development and important individual measures, about which the Supervisory Board was regularly and thoroughly informed by the Board of Executive Directors. This occurred in the form of written and oral reports on, for example, all of the company's and the segments' major financial KPIs for the general economic situation in the main sales and procurement markets, and on deviations in business developments from original plans. Furthermore, the Supervisory Board tackled fundamental questions of corporate planning, including financial, investment, sales volumes and personnel planning, as well as measures for designing the future of research and development.

The Supervisory Board discussed in detail the reports from the Board of Executive Directors, and also deliberated on prospects for the company and its individual business areas with the Board of Executive Directors. Outside of Supervisory Board meetings, the Chairman of the Board of Executive Directors also promptly informed the Chairman of the Super-

visory Board regarding current developments and significant items. The Supervisory Board was always involved at an early stage in decisions of major importance. The Supervisory Board passed resolutions on all of those individual measures taken by the Board of Executive Directors which by law or the Statutes required the approval of the Supervisory Board. In the 2015 business year, these concerned approval for the swap with Gazprom of investments in WINGAS's natural gas trading and storage business for further shares in a gas field in western Siberia, as well as the completion guarantee for the Nord Stream 2 natural gas pipeline project.

### **Supervisory Board meetings**

The Supervisory Board held five meetings in the 2015 reporting year. With the exception of one meeting at which one member of the Supervisory Board was absent, all Supervisory Board members attended all Supervisory Board meetings in 2015. The members of the Supervisory Board elected by shareholders and those elected by the employees prepared for the meetings in separate preliminary discussions.

A significant component of all Supervisory Board meetings was the Board of Executive Directors' reports on the current business situation with detailed information on sales and earnings growth, as well as on opportunities and risks for business development, the status of important current and planned investment projects, developments on the capital markets, and significant managerial measures taken by the Board of Executive Directors. Innovation projects were also discussed, including science symposia and the Creator Space tour as part of the activities in honor of BASF's 150th anniversary.

In its meetings, the Supervisory Board additionally discussed the further development of the BASF Group's business activities through acquisitions, divestitures and investment projects. Significant matters of consultation comprised the divestiture of the pharmaceutical custom synthesis business as well as portions of the active pharmaceutical ingredients business to Siegfried Holding AG; the above-mentioned BASF stake in the Nord Stream 2 project company for constructing an additional natural gas pipeline through the Baltic Sea with Gazprom, E.ON, ENGIE, Shell and OMC; the divestiture of the industrial coatings business; and the conclusion of the sale of the 25% share in the SolVin joint venture. Ongoing topics in the Board of Executive Directors' reports furthermore included major capital-intensive investment projects, such as the construction of a TDI complex in Ludwigshafen, Germany; an MDI plant in Chongqing, China; and an acrylic acid plant in Camaçari, Brazil, all of which began operations in 2015. Changes in the regulatory environment and their implications for the company's business activities were also discussed.

At its meeting of February 25, 2015, the Supervisory Board reviewed and approved the Consolidated Financial Statements, Management's Report and the proposal for the appropriation of profit for the 2014 business year as presented by the Board of Executive Directors. The meeting on April 30, 2015, served to prepare for the Annual Shareholders' Meeting.



In addition to strategically significant individual measures, the Supervisory Board also addressed BASF's strategy and long-term business prospects in individual business areas and regions. At its meeting on July 22, 2015, the Supervisory Board, together with the Board of Executive Directors, reassessed the implementation of the "We create chemistry" strategy established in 2011. Focus areas included the Agricultural Solutions and Oil & Gas segments, the further development of research and development, and the opportunities and risks for the company posed by Industry 4.0. The restructuring of the pigments business was also conferred upon.

At the meeting on October 22, 2015, the Board of Executive Directors reported on the region Europe's organizational and business-model enhancement as well as on the restructuring of the business with paper, water, oilfield and mining chemicals.


At its meeting of December 17, 2015, the Supervisory Board discussed the Board of Executive Directors' operative and financial planning including the investment budget for 2016, and as usual empowered the Board of Executive Directors to procure necessary financing in 2016. An additional focus topic was consultation on the further development of the Agricultural Solutions segment.

The Supervisory Board thoroughly considered the personnel issues of the Board of Executive Directors during the meetings of February 25, July 22, and December 17, 2015. Based on preparations conducted by the Personnel Committee, the Supervisory Board determined the targets for the Board of Executive Directors for the 2015 business year at its meeting on February 25, 2015. The meeting on July 22, 2015, dealt with the composition of the Board of Executive Directors. The terms of office expiring on April 29, 2016, for Chairman Dr. Kurt Bock, Vice Chairman Dr. Martin Bruder Müller, and members Dr. Hans-Ulrich Engel and Dr. Harald Schwager were each extended by five years, up to the conclusion of the Annual Shareholders' Meeting in 2021. According to preparations made by the Personnel Committee, the Supervisory Board determined the performance evaluation of the Board of Executive Directors for the 2015 business year at its meeting on December 17, 2015.

At its meetings on October 22 and December 17, 2015, the Supervisory Board also addressed topics pertaining to its own organization. For example, the Strategy Committee was deployed at the meeting on October 22, 2015. At both meetings, the Supervisory Board also advised on the change in BASF SE's Employee Participation Agreement, which provides the material legal foundation for the Supervisory Board. The changes made to the Employee Participation Agreement mainly concerned the implementation of the law introducing a minimum percentage of women and men on the Supervisory Board.

## Committees

The Supervisory Board of BASF SE has four committees: 1. the committee for personnel matters of the Board of Executive Directors and the granting of loans in accordance with Section 89(4) of the German Stock Corporation Act (Personnel Committee); 2. the Audit Committee; 3. the Nomination Committee; and 4. the Strategy Committee, newly established in 2015. Following each Committee meeting, the chairpersons of the Committees reported in detail about the meetings and the activities of the Committees at the subsequent meeting of the Supervisory Board.

 For more on the composition of the committees and the tasks assigned them by the Supervisory Board, see the Corporate Governance Report on page 131

The **Personnel Committee** met three times during the reporting period. With the exception of one meeting at which one member was absent, all committee members participated in the meetings. At its meeting on February 25, 2015, the Personnel Committee advised on the targets for the Board of Executive Directors for the 2015 business year. Topics at the meeting on July 22, 2015, included succession planning for the Board of Executive Directors, including the extension of their terms for Dr. Kurt Bock, Dr. Martin Bruder Müller, Dr. Hans-Ulrich Engel and Dr. Harald Schwager, and the determination of target figures for the proportion of women on the Board of Executive Directors of BASF SE. At the meeting on December 17, 2015, the Personnel Committee particularly focused on the Board of Executive Directors' performance evaluation and matters concerning their compensation.

The **Audit Committee** is responsible for all the tasks listed in Section 107(3)(2) of the German Stock Corporation Act and in Subsection 5.3.2 of the German Corporate Governance Code in its version of June 24, 2014. The Audit Committee met five times during the reporting period. All committee members attended all meetings. Its core duties were to review BASF SE's Financial Statements and Consolidated Financial Statements, as well as to discuss the quarterly and first-half financial reports with the Board of Executive Directors prior to their publication.

At the meeting on July 21, 2015, KPMG – the auditor elected at the Annual Shareholders' Meeting – was charged with the audit for the 2015 reporting year and auditing fees were agreed upon. The focus areas for the annual audit were discussed and defined together with the auditor. The Audit Committee categorically excluded any service relationships between auditor and BASF Group companies outside of the audit of the annual financial statements, including beyond prevailing legal limitations. These services may only be performed upon approval by the Audit Committee. For certain nonaudit services beyond the scope of the audit of the financial reports, the Audit Committee either granted approval for individual cases or authorized the Board of Executive Directors to engage KPMG for such services. The authorization of each service applies for one reporting year and is limited in amount.

One of the Committee's core tasks in 2015 was preparing a proposal for the Annual Shareholders' Meeting on April 29, 2016, on the election of the auditor for the 2016 business year. From August to December 2015, the Audit Committee selected the auditor to be recommended at the Annual Shareholders' Meeting by means of a tendering process conducted in line with the regulations set forth by the new E.U. regulatory framework on statutory audit, effective as of 2016. After assessment and extensive discussion of the tenders submitted through the tendering process by a total of five auditing firms, the Audit Committee decided to recommend to the Supervisory Board that the previous auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, once again be nominated for election at the Annual Shareholders' Meeting. KPMG has been auditor of BASF SE's separate and consolidated financial statements since the 2006 business year.

Other important activities included advising the Board of Executive Directors on accounting issues and the internal control system. The internal auditing system and compliance in the BASF Group were each a focus at one meeting of the Audit Committee. In these meetings, the head of the Corporate Audit department and the Chief Compliance Officer reported to the Audit Committee and answered its questions.

At the meeting on February 23, 2016, the auditor reported in detail on its audits of BASF SE's consolidated and separate financial statements for the 2015 business year and discussed the audit's results with the Audit Committee.

The Audit Committee once again conducted a self-evaluation of its activities in 2015. No new steps were found to be necessary in terms of the duties of the committee or the content, frequency and procedure of meetings.

The **Nomination Committee** is responsible for preparing candidate proposals for the election of those Supervisory Board members who are elected by the Annual Shareholders' Meeting. The Nomination Committee is guided by the objectives for the composition of the Supervisory Board adopted by the Supervisory Board. No appointments to the Supervisory Board, or reappointments of former Supervisory Board members, took place in 2015. The Nomination Committee nevertheless met once in 2015 in order to focus especially on risk provision for succession planning for the Supervisory Board, and determine a control limit for the term of membership on the Supervisory Board as recommended by the revised German Corporate Governance Code. All committee members attended the meeting.

Newly established in 2015, the **Strategy Committee** held one meeting during the reporting period, attended by all members. The discussion centered on possible significant individual measures for the internal implementation of BASF's "We create chemistry" strategy and strategic options for the further development of the BASF Group. Following this, the Strategy Committee was informed of progress in the preparation of potential individual measures that may require Supervisory Board approval should they be carried out.

## Corporate governance and Declaration of Conformity

The Supervisory Board places great value on ensuring good corporate governance: In 2015, it was therefore once again intensely occupied with the corporate governance standards practiced in the company, the implementation of the German Corporate Governance Code's recommendations and suggestions, and the implementation of the new law on the participation of women on the Supervisory Board and the Board of Executive Directors. At our meeting of October 22, 2015, we discussed the current recommendations and proposals made for the German Corporate Governance Code and their implementation at BASF.

At its meeting of December 17, 2015, the Supervisory Board approved the joint Declaration of Conformity by the Supervisory Board and the Board of Executive Directors in accordance with Section 161 of the German Stock Corporation Act, and carried out assessments of efficiency and independence. BASF complies with the recommendations of the German Corporate Governance Code in its version of May 5, 2015, without exception. This also applies to the Code's recommendations made in 2015, such as the determination of a control limit for the term of membership on the Supervisory Board, which was fixed by the Supervisory Board at three regular statutory periods in office, or around 15 years.

 The entire Declaration of Conformity is rendered on page 152 and can also be found at [basf.com/en/governance](http://basf.com/en/governance)

An important aspect of good corporate governance is the independence of Supervisory Board members and their freedom from conflicts of interest. According to estimations of the Supervisory Board, all of its members can be considered independent as defined by the German Corporate Governance Code. The criteria used for this evaluation can be found in the Corporate Governance Report on page 132. In cases where Supervisory Board members hold supervisory or management positions at companies with which BASF has business relations, we see no impairment of their independence. The scope of these businesses is relatively marginal and furthermore takes place under conditions similar to those of a third party. To avoid an individual case of potential conflict of interest, one Supervisory Board member refrained from participating in consultation on a particular matter at a Supervisory Board meeting in 2015. The Corporate Governance Report of the BASF Group provides extensive information on BASF's corporate governance. It also includes the Compensation Report, containing full details on the compensation for the Board of Executive Directors and the Supervisory Board.

## Annual Financial Statements of BASF SE and Consolidated Financial Statements

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KPMG AG Wirtschaftsprüfungsgesellschaft, the auditor elected by the Annual Shareholders' Meeting for the 2015 reporting year, has audited the Financial Statements of BASF SE and the BASF Group Consolidated Financial Statements, including the Management's Report and the accounting records from which they were prepared, and have approved them free of qualification. Furthermore, the auditor certified that the Board of Executive Directors had taken the measures incumbent on it under Section 91(2) of the German Stock Corporation Act in an appropriate manner. In particular, it had instituted an appropriate information and monitoring system that fulfilled the requirements of the company and is applicable for the early identification of developments that could pose a risk to the continued existence of the BASF Group.

The documents to be examined and the auditor's reports were sent in a timely manner to every member of the Supervisory Board. The auditor attended the accounts review meeting of the Audit Committee on February 23, 2016, as well as the accounts meeting of the Supervisory Board on February 24, 2016, and reported on the main findings of the audit. The auditor also provided detailed explanations of the reports on the day before the accounts meeting of the Supervisory Board.

The Audit Committee reviewed the Financial Statements and Management's Report at its meeting on February 23, 2016, and discussed them in detail with the auditor. The Chairwoman of the Audit Committee gave a detailed account of the preliminary review at the Supervisory Board meeting on February 24, 2016. On the basis of this preliminary review by the Audit Committee, the Supervisory Board has examined the Financial Statements and Management's Report of BASF SE for 2015, the proposal by the Board of Executive Directors for the appropriation of profit as well as the Consolidated Financial Statements and Management's Report for the BASF Group for 2015. The Supervisory Board has reviewed, acknowledged and approved the auditor's reports. The results of the preliminary review by the Audit Committee and the results of the Supervisory Board's examination fully concur with those of the audit. The Supervisory Board sees no grounds for objection to the management and submitted reports.

At the Supervisory Board's accounts meeting on February 24, 2016, we approved the Financial Statements of BASF SE and the Consolidated Financial Statements of the BASF Group prepared by the Board of Executive Directors, making the BASF SE Financial Statements final. We concur with the proposal of the Board of Executive Directors regarding the appropriation of profit and the payment of a dividend of €2.90 per share.

## Thanks

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The Supervisory Board thanks all employees of the BASF Group worldwide and the management for their personal contribution in the 2015 business year.

Dr. Andreas Kreimeyer left the Board of Executive Directors at the conclusion of the Annual Shareholders' Meeting on April 30, 2015. He had been a member since 2003 and served in the end as Research Executive Director. The Supervisory Board expresses its very sincere thanks to him.

Ludwigshafen, February 24, 2016

The Supervisory Board



Jürgen Hambrecht  
Chairman of the Supervisory Board

# Declaration of Conformity as per Section 161 AktG (Stock Corporation Act)

## Declaration of Conformity 2015 of the Board of Executive Directors and the Supervisory Board of BASF SE

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**The Board of Executive Directors and the Supervisory Board of BASF SE hereby declare pursuant to Section 161 AktG (Stock Corporation Act)**

1. The recommendations of the Government Commission on the German Corporate Governance Code as amended on June 24, 2014, published by the Federal Ministry of Justice on September 30, 2014, in the official section of the electronic Federal Gazette, have been complied with since the submission of the last Declaration of Conformity in December 2014.

2. The recommendations of the Government Commission on the German Corporate Governance Code as amended on May 5, 2015, published by the Federal Ministry of Justice on June 12, 2015, in the official section of the electronic Federal Gazette, are complied with and will be complied with.

Ludwigshafen, December 2015

**The Supervisory Board**  
of BASF SE

**The Board of Executive Directors**  
of BASF SE

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## Statement by the Board of Executive Directors and assurance pursuant to Sections 297(2) and 315(1) of the German Commercial Code (HGB)

The Board of Executive Directors of BASF SE is responsible for preparing the Consolidated Financial Statements and Management's Report of the BASF Group.

The Consolidated Financial Statements for 2015 were prepared according to the International Financial Reporting Standards (IFRS), which are published by the International Accounting Standards Board (IASB), London, and have been endorsed by the European Union.

We have established effective internal control and steering systems in order to ensure that the BASF Group's Consolidated Financial Statements and Management's Report comply with applicable accounting rules and to ensure proper corporate reporting.

The risk management system we have set up is designed such that the Board of Executive Directors can identify material risks early on and take appropriate defensive measures as necessary. The reliability and effectiveness of the internal control and risk management system are continually audited throughout the Group by our internal audit department.

To the best of our knowledge, and in accordance with the applicable reporting principles, the Consolidated Financial Statements of the BASF Group give a true and fair view of the net assets, financial position and results of operations of the Group, and the Management's Report of the BASF Group includes a fair review of the development and performance of the business as well as position of the BASF Group, together with a description of the principal opportunities and risks associated with the expected development of the BASF Group.

Ludwigshafen am Rhein, February 23, 2016



**Dr. Kurt Bock**  
Chairman



**Dr. Martin Brudermüller**  
Vice Chairman



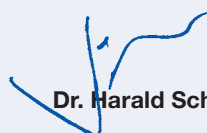
**Dr. Hans-Ulrich Engel**  
Chief Financial Officer



**Sanjeev Gandhi**



**Michael Heinz**



**Dr. Harald Schwager**



**Wayne T. Smith**



**Margret Suckale**

## Auditor's report

We have audited the consolidated financial statements prepared by BASF SE, Ludwigshafen am Rhein, Germany, comprising the statement of income, statement of income and expense recognized in equity, balance sheet, statement of cash flows, statement of equity and the Notes to the Consolidated Financial Statements together with the Group Management's Report for the business year from January 1 to December 31, 2015. The preparation of the Consolidated Financial Statements and the Group Management's Report in accordance with IFRSs as adopted by the European Union, and the additional requirements of German commercial law pursuant to Section 315a(1) of the German Commercial Code (HGB) are the responsibility of the parent company's management. Our responsibility is to express an opinion on the Consolidated Financial Statements and on the Group Management's Report based on our audit. In addition, we have been instructed to express an opinion as to whether the consolidated financial statements comply with full IFRS.

We conducted our audit of the Consolidated Financial Statements in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (*Institut der Wirtschaftsprüfer*, IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the Consolidated Financial Statements in accordance with the applicable financial reporting framework and in the Group Management's Report are detected with reasonable

assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the Consolidated Financial Statements and the Group Management's Report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by the Board of Executive Directors, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRSs as adopted by the E.U., the additional requirements of German commercial law pursuant to Section 315a(1) HGB and full IFRS and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The Group Management's Report is consistent with the Consolidated Financial Statements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Frankfurt am Main, February 23, 2016

KPMG AG  
Wirtschaftsprüfungsgesellschaft

**Rega**  
Wirtschaftsprüfer

**KrauB**  
Wirtschaftsprüfer

# Statement of income

## BASF Group

### Statement of income (in million €)

	Explanations in Note	2015	2014
<b>Sales revenue</b>	[4]	<b>70,449</b>	<b>74,326</b>
Cost of sales	[6]	(51,372)	(55,839)
<b>Gross profit on sales</b>		<b>19,077</b>	<b>18,487</b>
Selling expenses	[6]	(8,062)	(7,493)
General administrative expenses	[6]	(1,429)	(1,359)
Research expenses	[6]	(1,953)	(1,884)
Other operating income	[7]	2,004	2,231
Other operating expenses	[8]	(3,640)	(2,629)
Income from companies accounted for using the equity method	[9]	251	273
<b>Income from operations</b>	<b>[4]</b>	<b>6,248</b>	<b>7,626</b>
Income from other shareholdings		80	303
Expenses from other shareholdings		(71)	(25)
Interest income		213	207
Interest expenses		(638)	(711)
Other financial income		152	158
Other financial expenses		(436)	(355)
<b>Financial result</b>	<b>[10]</b>	<b>(700)</b>	<b>(423)</b>
<b>Income before taxes and minority interests</b>		<b>5,548</b>	<b>7,203</b>
Income taxes	[11]	(1,247)	(1,711)
<b>Income before minority interests</b>		<b>4,301</b>	<b>5,492</b>
Minority interests	[12]	(314)	(337)
<b>Net income</b>		<b>3,987</b>	<b>5,155</b>
<b>Earnings per share (€)</b>	<b>[5]</b>	<b>4.34</b>	<b>5.61</b>
Dilution effect (€)	[5]	(0.01)	(0.01)
<b>Diluted earnings per share (€)</b>	<b>[5]</b>	<b>4.33</b>	<b>5.60</b>

# Statement of income and expense recognized in equity

## BASF Group

### Income before minority interests and income and expense recognized in equity<sup>1</sup> (in million €)

	2015	2014
<b>Income before minority interests</b>	<b>4,301</b>	<b>5,492</b>
Remeasurement of defined benefit plans <sup>2</sup>	961	(3,491)
Deferred taxes for items that will not be reclassified to the statement of income	(273)	1,095
<b>Income and expense recognized in equity that will not be reclassified to the statement of income at a later date</b>	<b>688</b>	<b>(2,396)</b>
Unrealized gains/losses from fair value changes in available-for-sale securities	1	7
Reclassifications of realized gains/losses recognized in the income statement	(1)	(1)
<b>Fair value changes in available-for-sale securities, net<sup>3</sup></b>	<b>-</b>	<b>6</b>
Unrealized gains/losses from cash flow hedges	38	(510)
Reclassifications of realized gains/losses recognized in the income statement	347	47
<b>Cash flow hedges, net<sup>3</sup></b>	<b>385</b>	<b>(463)</b>
Foreign currency translation adjustment	924	668
Deferred taxes for items that will be reclassified to the statement of income	(104)	103
<b>Income and expense recognized in equity that will be reclassified to the statement of income at a later date</b>	<b>1,205</b>	<b>314</b>
Minority interests	202	(163)
<b>Total income and expense recognized in equity</b>	<b>2,095</b>	<b>(2,245)</b>
<b>Income before minority interests and income and expense recognized in equity</b>	<b>6,396</b>	<b>3,247</b>
Thereof attributable to shareholders of BASF SE	5,880	3,073
attributable to minority interests	516	174

<sup>1</sup> For more information on other comprehensive income, see Note 20 on page 198.

<sup>2</sup> For more information, see Note 22, "Provisions for pensions and similar obligations," from page 199 onward.

<sup>3</sup> For more information, see Note 27, "Supplementary information on financial instruments," from page 210 onward.

### Development of income and expense recognized in equity of shareholders of BASF SE (in million €)

	Other comprehensive income				Total income and expense recognized in equity
	Remeasurement of defined benefit plans	Foreign currency translation adjustment	Measurement of securities at fair value	Cash flow hedges	
<b>As of January 1, 2015</b>	<b>(4,840)</b>	<b>(259)</b>	<b>20</b>	<b>(403)</b>	<b>(5,482)</b>
Additions	961	924	0	385	2,270
Releases	68 <sup>1</sup>	-	-	-	68
Deferred taxes	(273)	(13)	0	(91)	(377)
<b>As of December 31, 2015</b>	<b>(4,084)</b>	<b>652</b>	<b>20</b>	<b>(109)</b>	<b>(3,521)</b>
<b>As of January 1, 2014</b>	<b>(2,444)</b>	<b>(917)</b>	<b>15</b>	<b>(54)</b>	<b>(3,400)</b>
Additions	(3,491)	668	6	(463)	(3,280)
Releases	-	-	-	-	-
Deferred taxes	1,095	(10)	(1)	114	1,198
<b>As of December 31, 2014</b>	<b>(4,840)</b>	<b>(259)</b>	<b>20</b>	<b>(403)</b>	<b>(5,482)</b>

<sup>1</sup> Reclassification to retained earnings in accordance with IAS 19.122; for more information, see Note 20 on page 198

# Balance sheet

## BASF Group

### Assets (in million €)

	Explanations in Note	Dec. 31, 2015	Dec. 31, 2014
Intangible assets	[14]	12,537	12,967
Property, plant and equipment	[15]	25,260	23,496
Investments accounted for using the equity method	[16]	4,436	3,245
Other financial assets	[16]	526	540
Deferred tax assets	[11]	1,791	2,193
Other receivables and miscellaneous assets	[18]	1,720	1,498
<b>Noncurrent assets</b>		<b>46,270</b>	<b>43,939</b>
Inventories	[17]	9,693	11,266
Accounts receivable, trade	[18]	9,516	10,385
Other receivables and miscellaneous assets	[18]	3,095	4,032
Marketable securities		21	19
Cash and cash equivalents <sup>1</sup>	[1]	2,241	1,718
<b>Current assets</b>		<b>24,566</b>	<b>27,420</b>
<b>Total assets</b>		<b>70,836</b>	<b>71,359</b>

### Equity and liabilities (in million €)

	Explanations in Note	Dec. 31, 2015	Dec. 31, 2014
Subscribed capital	[19]	1,176	1,176
Capital surplus	[19]	3,141	3,143
Retained earnings	[19]	30,120	28,777
Other comprehensive income	[20]	(3,521)	(5,482)
<b>Equity of shareholders of BASF SE</b>		<b>30,916</b>	<b>27,614</b>
Minority interests	[21]	629	581
<b>Equity</b>		<b>31,545</b>	<b>28,195</b>
Provisions for pensions and similar obligations	[22]	6,313	7,313
Other provisions	[23]	3,369	3,502
Deferred tax liabilities	[11]	3,381	3,420
Financial indebtedness	[24]	11,123	11,839
Other liabilities	[24]	869	1,197
<b>Noncurrent liabilities</b>		<b>25,055</b>	<b>27,271</b>
Accounts payable, trade		4,020	4,861
Provisions	[23]	2,540	2,844
Tax liabilities	[11]	1,082	1,079
Financial indebtedness	[24]	4,074	3,545
Other liabilities	[24]	2,520	3,564
<b>Current liabilities</b>		<b>14,236</b>	<b>15,893</b>
<b>Total equity and liabilities</b>		<b>70,836</b>	<b>71,359</b>

<sup>1</sup> For a reconciliation of the amounts in the statement of cash flows with the balance sheet item "cash and cash equivalents," see page 160

# Statement of cash flows

## BASF Group

### Statement of cash flows<sup>1</sup> (in million €)

	2015	2014
Net income	3,987	5,155
Depreciation and amortization of intangible assets, property, plant and equipment and financial assets	4,448	3,455
Changes in inventories	1,094	(606)
Changes in receivables	1,463	173
Changes in operating liabilities and other provisions	(1,210)	(190)
Changes in pension provisions, defined benefit assets and other items	(317)	(773)
Gains (-) / losses (+) from disposal of noncurrent assets and securities	(19)	(256)
<b>Cash provided by operating activities</b>	<b>9,446</b>	<b>6,958</b>
Payments for property, plant and equipment and intangible assets	(5,812)	(5,296)
Payments for financial assets and securities	(920)	(1,131)
Payments for acquisitions	(215)	(963)
Payments from divestitures	651	1,336
Payments from the disposal of noncurrent assets and securities	1,061	1,558
<b>Cash used in investing activities</b>	<b>(5,235)</b>	<b>(4,496)</b>
Capital increases/repayments and other equity transactions	66	-
Additions to financial and similar liabilities	6,937	6,048
Repayment of financial and similar liabilities	(7,870)	(5,760)
Dividends paid		
To shareholders of BASF SE	(2,572)	(2,480)
minority shareholders	(234)	(286)
<b>Cash used in financing activities</b>	<b>(3,673)</b>	<b>(2,478)</b>
<b>Net changes in cash and cash equivalents</b>	<b>538</b>	<b>(16)</b>
Change in cash and cash equivalents		
From foreign exchange rates	(19)	(90)
changes in scope of consolidation	4	(3)
<b>Cash and cash equivalents at the beginning of the year</b>	<b>1,718</b>	<b>1,827</b>
<b>Cash and cash equivalents at the end of the year</b>	<b>2,241</b>	<b>1,718</b>

<sup>1</sup> More information on the statement of cash flows can be found in the Management's Report (Financial Position) from page 60 onward. Other information on cash flows can be found in Note 29 on page 217.



# Statement of equity

## BASF Group

### Statement of equity<sup>1</sup> (in million €)

	Number of shares outstanding	Subscribed capital	Capital surplus	Retained earnings	Other comprehensive income <sup>2</sup>	Equity of shareholders of BASF SE	Minority interests	Equity
<b>January 1, 2015</b>	<b>918,478,694</b>	<b>1,176</b>	<b>3,143</b>	<b>28,777</b>	<b>(5,482)</b>	<b>27,614</b>	<b>581</b>	<b>28,195</b>
Effects of acquisitions achieved in stages	–	–	–	–	–	–	–	–
Dividend paid	–	–	–	(2,572)	–	(2,572)	(234) <sup>3</sup>	(2,806)
Net income	–	–	–	3,987	–	3,987	314	4,301
Changes to income and expense recognized directly in equity	–	–	–	–	1,893	1,893	202	2,095
Changes in scope of consolidation and other changes	–	–	(2) <sup>4</sup>	(72) <sup>5</sup>	68 <sup>6</sup>	(6)	(234)	(240)
<b>December 31, 2015</b>	<b>918,478,694</b>	<b>1,176</b>	<b>3,141</b>	<b>30,120</b>	<b>(3,521)</b>	<b>30,916</b>	<b>629</b>	<b>31,545</b>
<b>January 1, 2014</b>	<b>918,478,694</b>	<b>1,176</b>	<b>3,165</b>	<b>26,102</b>	<b>(3,400)</b>	<b>27,043</b>	<b>630</b>	<b>27,673</b>
Effects of acquisitions achieved in stages	–	–	–	–	–	–	–	–
Dividend paid	–	–	–	(2,480)	–	(2,480)	(286) <sup>3</sup>	(2,766)
Net income	–	–	–	5,155	–	5,155	337	5,492
Changes to income and expense recognized directly in equity	–	–	–	–	(2,082)	(2,082)	(163)	(2,245)
Changes in scope of consolidation and other changes	–	–	(22) <sup>4</sup>	–	–	(22)	63	41
<b>December 31, 2014</b>	<b>918,478,694</b>	<b>1,176</b>	<b>3,143</b>	<b>28,777</b>	<b>(5,482)</b>	<b>27,614</b>	<b>581</b>	<b>28,195</b>

<sup>1</sup> For more information on the items relating to equity, see Notes 19 and 20 from page 198 onward.

<sup>2</sup> Details are provided in the table "Income and expense recognized in equity" on page 158.

<sup>3</sup> Including profit and loss transfers

<sup>4</sup> Granting of BASF shares under the BASF share program "plus"

<sup>5</sup> Including reclassification to retained earnings in accordance with IAS 19.122; for more information, see Note 19 on page 198

<sup>6</sup> Reclassification to retained earnings in accordance with IAS 19.122; for more information, see Note 20 on page 198

## 1 Summary of accounting policies

### 1.1 General information

BASF SE is a publicly listed corporation headquartered in Ludwigshafen am Rhein, Germany. Its official address is Carl-Bosch-Str. 38, 67056 Ludwigshafen am Rhein, Germany.

The Consolidated Financial Statements of BASF SE as of December 31, 2015, have been prepared in accordance with the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB) and Section 315a (1) of the German Commercial Code (HGB). IFRSs are generally only applied after they have been endorsed by the European Union. For the 2015 fiscal year, all of the binding IFRSs and pronouncements of the International Financial Reporting Interpretations Committee (IFRIC) were applied.

The Consolidated Financial Statements are presented in euros. All amounts, including the figures for previous years, are given in million euros unless otherwise indicated.

The individual financial statements of the consolidated companies are prepared as of the balance sheet date of the Consolidated Financial Statements. The accounting policies that have been applied are largely the same as those in 2014, with the exception of any changes arising from the application of new or revised standards.

In its meeting on February 22, 2016, the Board of Executive Directors prepared the Consolidated Financial Statements, submitted them to the Supervisory Board for approval, and released them for publication.

### 1.2 Changes in accounting principles

#### Change in presentation of joint operation sales in BASF Group Financial Statements

At its meeting on March 24, 2015, the IFRS Interpretation Committee determined that, according to IFRS 11.20(d), a joint operator's share of the output purchased by another partner cannot be recognized as revenue as long as these sales correspond to the operator's share of ownership interest in the joint operation. As a consequence of this determination, this portion of the joint operation's sales to other partners ceased to be recognized as of January 1, 2015. Partners' share of the output purchased in excess of their ownership interest will continue to be shown as sales to third parties in the BASF Group Financial Statements. Sales by the joint operation to BASF Group companies will also continue to be eliminated.

Sales revenue for 2014 contained sales of €415 million that, according to the new recognition method, would have been eliminated against cost of sales. If the recognition method had remained unchanged, sales and cost of sales for 2015 would each have been €76 million higher. A restatement of the prior-year figures was not necessary, as this change in recognition would have had no material impact on the presentation of the net assets, financial position and results of operations of the BASF Group in 2014.

#### Change in presentation of hedges for financial receivables and payables in the statement of cash flows

The presentation in the statement of cash flows of hedges for financial receivables and payables was adjusted as of January 1, 2015. Without changing cash provided by operating activities, hedging is now better reflected by offsetting adjustment effects from underlying transactions with changes in the market value of hedging transactions. The effects from hedging transactions were previously contained in the item "changes in receivables" and those from underlying transactions in the item "changes in pension provisions, defined benefit assets and other items." The figures for 2014 have been adjusted accordingly.

In 2014, this led to an increase of €76 million in the line item changes in receivables and a decrease in the line item changes in pension provisions, defined benefit assets and other items in the amount of €76 million.

#### Changes in the measurement of emission right certificates granted free of charge

To improve the presentation of net assets and the financial position, the measurement of emission right certificates granted free of charge was conducted according to the net method for the first time as of December 31, 2015. According to this method, emission right certificates are no longer recognized at the applicable market prices (fair value) at the time they are credited to the electronic register run by the relevant governmental authority, but are recognized on the balance sheet with a value of zero. Accordingly, the counter items (deferred income and provisions for emission right certificates) are also reported with a value of zero. The conversion from gross method to the net method led to balance sheet contraction in the amount of €153 million with no effect on income.

#### IFRSs and IFRICs not yet to be considered

The effects on the BASF Group financial statements of the IFRSs and IFRICs not yet in force or not yet endorsed by the European Union in 2015 were reviewed and are explained below. Other new standards or interpretations and amendments of existing standards and interpretations have no material impact on the BASF Group. Early adoption of the standards before endorsement by the European Union is not planned.

#### IFRS 9 – Financial Instruments

On July 24, 2014, the IASB issued the final version of IFRS 9 – Financial Instruments, concluding the multiyear project to replace IAS 39 – Financial Instruments: Recognition and Measurement. IFRS 9 contains new requirements for the classification and measurement of financial instruments, fundamental changes regarding the accounting treatment of financial asset impairments, and a reformed approach to hedge accounting.

IFRS 9 retains “amortized cost” and “fair value” as the criteria for measuring financial instruments. Whether financial assets are measured at amortized cost or fair value will depend on two factors: the entity’s business model for managing the portfolio to which the financial asset belongs and the contractual cash flow characteristics of the financial asset.

In the future, the recognition of financial asset impairments is based on expected losses according to IFRS 9. The general approach adopts a three-stage model to assess the provisions for risks. The model requires different degrees of impairment based on the credit default risk of the counterparties. For certain financial instruments, such as trade accounts receivable, operational simplifications for recognizing impairment losses apply.

The IFRS 9 regulations on hedge accounting aim for a closer alignment of hedge accounting with the entity’s risk management strategy.

The new standard will be effective for reporting periods beginning on or after January 1, 2018. An endorsement by the European Union is still pending. The new requirements could have an impact on the accounting treatment of other shareholdings. The further potential impact on BASF is currently being analyzed.

#### **IFRS 15 – Revenues from Contracts with Customers**

The IASB published the new standard on revenue recognition, IFRS 15 – Revenues from Contracts with Customers, on May 28, 2014. The revised standard particularly aims to standardize existing regulations and thus improve transparency and the comparability of financial information. The rules and definitions of IFRS 15 supersede the content of IAS 11, IAS 18, IFRIC 13, IFRIC 15, IFRIC 18, and SIC 31.

The new standard does not differentiate between different types of contracts and services, but rather introduces uniform criteria for the timing of revenue recognition. According to IFRS 15, sales revenue is recognized when control of the agreed-upon goods or services and the benefits obtainable from them are transferred to the customer. The transfer of major risks and rewards of ownership of the goods is no longer the deciding factor. Sales revenue is measured as the amount the entity expects to receive in exchange for goods and services.

The new model for the determination of revenue recognition is based on five steps, whereby the contract with the customer and the individual performance obligations within the contract are initially identified. The transaction price is then determined and allocated to the performance obligations in the contract. Finally, sales are recognized for each performance obligation in the amount of the allocated portion of the transaction price as soon as the agreed-upon good or service has been provided or the customer receives control over it. Principles are set out for determining whether the good or service has been provided over time or at one point in time.

The new standard will be effective for reporting periods beginning on or after January 1, 2018. An endorsement by the European Union is still pending. The potential impact on BASF is currently being analyzed.

#### **IFRS 16 – Leasing**

The IASB published standard IFRS 16 Leases on January 13, 2016. The rules and definitions of IFRS 16 supersede the content of IAS 17, IFRIC 4, SIC 15 and SIC 27. The new standard introduces a single lessee accounting model. It requires a lessee to recognize assets and liabilities for all leases with a term of more than twelve months, unless the underlying asset is of low value. As for the lessor, the new standard substantially carries forward the lessor accounting requirements of IAS 17. The new standard will be effective for reporting periods beginning on or after January 1, 2019. An endorsement by the European Union is still pending. The potential impact on BASF is currently being analyzed.

#### **Disclosure Initiative (Amendments to IAS 1)**

On December 18, 2014, the IASB issued amendments made to IAS 1. The revisions pertain to various disclosure requirements, and clarify that information needs to be disclosed in the notes only if it is material for the company. This explicitly applies if a standard calls for a list of minimum disclosures. Explanations are moreover provided on the aggregation and disaggregation of line items in the balance sheet and income statement. Furthermore, the revised standard clarifies how an entity’s share of the other comprehensive income of equity-accounted companies is to be presented in the income statement. The changes will be effective for reporting periods beginning on or after January 1, 2016. An endorsement by the European Union was issued on December 19, 2015. The amendments are not expected to have a material effect on BASF.

#### **Amendments to IAS 16 and IAS 38: Clarification of Acceptable Methods of Depreciation and Amortization**

The IASB issued amendments to IAS 16 and IAS 38 on May 12, 2014. These revisions provide further guidance on determining an acceptable method of depreciation and amortization. Revenue-based methods are not permissible for property, plant and equipment and are only permissible for intangible assets in specific exceptional cases (rebuttable presumption of inappropriateness). The changes will be effective for reporting periods beginning on or after January 1, 2016. The European Union’s endorsement was issued on December 3, 2015. The amendments are not expected to have a material effect on BASF.

### Amendments to IAS 19 – Employee Contributions to Defined Benefit Plans

The IASB issued amendments to IAS 19 on November 11, 2013. The revisions clarify the requirements that relate to how contributions from employees or third parties that are linked to service should be attributed to periods of service. In addition, practical expedients are permitted if the amount of the contributions is independent of the number of years of service. The European Union endorsed the changes on January 9, 2015. In a deviation from the IASB's effective date (reporting periods beginning on or after July 1, 2014), IFRS-based financial statements of the European Union must apply the changes for reporting periods beginning on or after February 1, 2015. The amendments are not expected to have a material effect on BASF.

### Amendments to IFRS 10 and IAS 28 – Sale or Contribution of Assets between an Investor and its Associate or Joint Venture

The IASB issued amendments to IFRS 10 and IAS 28 on September 11, 2014. The amendments address a known inconsistency between the requirements of IFRS 10 and IAS 28 (2011) in the case of the sale of an asset to an associated company or a joint venture or the contribution of an asset to an associated company or a joint venture. According to IFRS 10, if the disposal of a subsidiary by a parent company results in a loss of control, it recognizes the gain or loss on the sale of the subsidiary in the full amount in the income statement. In contrast, the currently applicable IAS 28.28 requires that a gain on sales transactions between an investor and an investment accounted for using the equity method – whether it be an associated company or joint venture – is recognized only to the extent of the investor's interests in the associated company or joint venture. In the future, the entire gain or loss arising from a transaction shall only be recognized when the assets sold or contributed constitute a business combination according to IFRS 3. This applies regardless of whether the transaction is a share or asset deal. Only a pro rata recognition of gain is permissible if the assets do not constitute a business combination. IASB has postponed the effective date of the changes indefinitely. The potential impact on BASF is currently being analyzed.

### Amendments to IFRS 11 – Accounting for Acquisitions of Interests in Joint Operations

The IASB issued amendments to IFRS 11 on May 6, 2014. IFRS 11 includes regulations on the recognition of assets and liabilities and gains or losses of joint ventures and joint operations. Whereas joint ventures are accounted for using the equity method, joint operations, according to IFRS 11, are recognized in a similar fashion to proportional consolidation. With the changes in IFRS 11, IASB regulates the accounting for the acquisition of shares in a joint operation, which constitutes a business according to IFRS 3 – Business Combinations. In such cases, the acquirer shall apply the principles of the accounting for business combinations according to IFRS 3.

Furthermore, the disclosure requirements in IFRS 3 also apply in such cases. The changes will be effective for reporting periods beginning on or after January 1, 2016. An endorsement by the European Union was issued on November 25, 2015. The amendments are not expected to have a material effect on BASF.

### IFRS Annual Improvements Cycle 2010–2012

Under its Annual Improvement Project, the IASB issued amendments to several standards on December 12, 2013. The affected standards are IFRS 2, IFRS 3, IFRS 8, IAS 16, IAS 24, and IAS 38. The amendments address details of the recognition, measurement and disclosure of business transactions or serve to standardize terminology. The European Union endorsed the changes on January 9, 2015. In a deviation from the IASB's effective date (reporting periods beginning on or after July 1, 2014), IFRS-based financial statements in the European Union must apply the changes for reporting periods beginning on or after February 1, 2015. The amendments are not expected to have a material effect on BASF.

### IFRS Annual Improvements Cycle 2012–2014

Under its Annual Improvement Project, the IASB issued amendments to several standards on September 25, 2014. The affected standards are IAS 19, IAS 34, IFRS 5 and IFRS 7. The amendments address details of the recognition, measurement and disclosure of business transactions or serve to standardize terminology. The changes will be effective for reporting periods beginning on or after January 1, 2016. An endorsement by the European Union was issued on December 16, 2015. The amendments are not expected to have a material effect on BASF.

## 1.3 Group accounting principles

**Scope of consolidation:** The scope of consolidation is based on the application of the standards IFRS 10 and 11.

According to IFRS 10, a group consists of a parent entity and the subsidiaries controlled by the parent. "Control" of an investee assumes the simultaneous fulfillment of the following three criteria:

- The parent company holds decision-making power over the relevant activities of the investee,
- The parent company has rights to variable returns from the investee, and
- The parent company can use its decision-making power to affect the variable returns.

Based on corporate governance and potential supplementary agreements, companies are analyzed for their relevant activities and variable returns, and the link between the variable returns and the extent to which their relevant activities could be influenced.

According to IFRS 11, which regulates the accounting of joint arrangements, a distinction must be made between joint ventures and joint operations. In the case of a joint venture, the parties that have joint control of a legally independent company have rights to the net assets of that arrangement. In joint operations, the parties that have joint control have direct rights to the assets and obligations for the liabilities relating to the arrangement. This requirement is particularly fulfilled if the production output of the joint arrangement is almost entirely transferred to the partners, through which the partners guarantee the joint arrangements' ongoing financing.

Companies whose corporate governance structures classify them as joint arrangements are analyzed to determine if they meet the criteria for joint ventures or joint operations as per IFRS 11. This requires an analysis of the joint arrangement's structure and, if the arrangement is structured through a separate vehicle, its legal form, contractual arrangements and all other facts and circumstances are reviewed.

**Consolidation:** In addition to BASF SE, the Consolidated Financial Statements include all material subsidiaries on a fully consolidated and all material joint operations on a proportionally consolidated basis. Companies whose business is dormant or of low volume, and are of secondary importance for the presentation of a true and fair view of the net assets, financial position and results of operations, are not consolidated, but rather are reported under other shareholdings. These companies are carried at amortized cost and are written down in the case of an impairment. The aggregate assets and equity of these companies amount to less than 1% of the corresponding value at the Group level.

Joint ventures and associated companies are accounted for using the **equity method** in the Consolidated Financial Statements. Associated companies are entities in which significant influence can be exercised over their operating and financial policies and which are not subsidiaries, joint ventures or joint operations. In general, this applies to companies in which BASF has an investment of between 20% and 50%. Equity-accounted income is reported as part of income from operations (EBIT).

**Consolidation methods:** Assets and liabilities of consolidated companies are uniformly recognized and measured in accordance with the principles described herein. For equity-accounted companies, material deviations in measurement resulting from the application of other accounting principles are adjusted for.

Transactions between consolidated companies as well as intercompany profits resulting from trade between consolidated companies are eliminated in full; for joint operations, they are proportionally eliminated. Material intercompany profits related to companies accounted for using the equity method are eliminated.

Capital consolidation is conducted at the acquisition date according to the purchase method. Initially, all assets, liabilities and additional intangible assets that are to be capitalized are measured at fair value. Finally, the acquisition cost is compared with the proportional share of the net assets acquired at fair value. The resulting positive differences are capitalized as goodwill. Negative differences are reviewed once more, then recognized directly in the income statement.

The incidental acquisition costs of a business combination are recognized in the income statement under other operating expenses.

**Foreign currency translations:** The cost of assets acquired in foreign currencies and revenue from sales in foreign currencies are determined by the exchange rate on the date of the transaction. Foreign currency receivables and liabilities are valued at the exchange rates on the balance sheet date. Changes in assets and liabilities arising from foreign currency translation are recognized in the income statement and reported under other operating expenses or income, other financial result, and available-for-sale financial assets in other comprehensive income.

**Translation of foreign currency financial statements:** The translation of foreign currency financial statements depends on the functional currency of the consolidated companies. For companies whose functional currency is not the euro but a local currency, translation into the reporting currency is based on the closing rate method: Balance sheet items are translated into euros using closing rates on the balance sheet date; expenses and income are translated into euros at monthly average rates and accumulated for the year. The difference between a company's translated equity at historical rates at the time of acquisition and its equity at closing rates on the balance sheet date is reported separately in equity under other comprehensive income (translation adjustments) and is recognized in income only upon the company's disposal.

For certain companies outside the eurozone or U.S. dollar zone, the euro or U.S. dollar is the functional currency. In such cases the translation into the functional currency of financial statements prepared in the local currency is done according to the temporal method: All nonmonetary assets and related depreciation and amortization as well as equity are translated at the exchange rate applying to the respective transactions. All other balance sheet items are translated using closing rates on the balance sheet date; other expenses and income are translated at monthly average rates. The resulting translation differences are recognized in the income statement under other operating income or expenses. If necessary, financial statements in the functional currency are translated into the presentation currency according to the closing rate method.

**Selected exchange rates** (€1 equals)

	Closing rates		Average rates	
	Dec. 31, 2015	Dec. 31, 2014	2015	2014
Brazil (BRL)	4.31	3.22	3.70	3.12
China (CNY)	7.06	7.54	6.97	8.19
Great Britain (GBP)	0.73	0.78	0.73	0.81
Japan (JPY)	131.07	145.23	134.28	140.31
Malaysia (MYR)	4.70	4.25	4.33	4.34
Mexico (MXN)	18.91	17.87	17.61	17.66
Russia (RUB)	80.67	72.34	68.02	50.95
Switzerland (CHF)	1.08	1.20	1.07	1.21
South Korea (KRW)	1,280.78	1,324.80	1,255.98	1,398.14
United States (USD)	1.09	1.21	1.11	1.33

## 1.4 Accounting policies

### Revenue recognition

Revenues from the sale of goods or the rendering of services are recognized upon the transfer of ownership and risk to the buyer. They are measured at the fair value of the consideration received. Sales revenues are reported without sales tax. Expected rebates and other trade discounts are accrued or deducted. Provisions are recognized according to the principle of individual measurement to cover probable risks related to the return of products, future warranty obligations and other claims.

Revenues from the sale of precious metals to industrial customers as well as revenues from natural gas trading are recognized at the time of shipment and the corresponding purchase prices are recorded at cost of sales. In the trading of precious metals and their derivatives with broker-traders, where there is usually no physical delivery, revenues are netted against their corresponding costs. Revenues from marketing the natural gas from the Yuzhno Russkoye gas field are treated in the same manner.

Income relating to the sale or licensing of technologies or technological expertise are recognized in the income statement according to the contractually agreed-upon transfer of the rights and obligations associated with those technologies.

### Assets

**Acquired intangible assets (excluding goodwill)** with defined useful lives are valued at cost less scheduled straight-line amortization. The useful life is determined using the period of the underlying contract or the period of time over which the intangible asset can be expected to be used.

Impairments are recognized if the recoverable amount of the asset is lower than the carrying amount. The recoverable amount is the higher of either fair value less costs to sell or the value in use. The value in use is determined on the basis of future cash inflows and outflows and the weighted average cost of capital after taxes, depending on tax rates and country-related risks. If the reasons for an impairment no longer exist, the write-downs are reversed up to the value of the asset, had an impairment not been recognized. Depending on the type of intangible asset, amortization is reported under cost of sales, selling expenses, research expenses or other operating expenses.

Intangible assets with indefinite useful lives are trade names and trademarks that have been acquired as part of acquisitions. These are measured at cost and tested for impairment annually, or if there is an indication that their value has declined.

**Internally generated intangible assets** primarily comprise internally developed software. Such software and other internally generated assets are measured at cost and amortized over their estimated useful lives. Impairments are recognized if the carrying amount of an asset exceeds the recoverable amount. In addition to those costs directly attributable to the asset, costs of internally generated intangible assets also include an appropriate portion of overhead costs. Borrowing costs are capitalized to the extent that they apply to the purchase or the period of construction of qualifying assets.

The estimated useful lives and amortization methods of intangible assets are based on historical values, plans and estimates. These estimates also consider the period and distribution of future cash inflows and outflows. The amortization methods, useful lives and residual values are reviewed at each balance sheet date. The weighted average amortization periods of intangible assets amounted to:

#### Average amortization in years

	2015	2014
Distribution, supply and similar rights	14	14
Product rights, licenses and trademarks	18	18
Know-how, patents and production technologies	12	12
Internally generated intangible assets	4	4
Other rights and values	7	8

**Emission rights:** Emission right certificates, granted free of charge by the German Emissions Trading Authority (Deutsche Emissionshandelsstelle) or a similar authority in other countries, are recognized on the balance sheet with a value of zero. Certificates purchased on the market are capitalized at cost as intangible assets. Emissions generated create an obligation to surrender the emission certificates. Emission certificates purchased on the market are subsequently measured at fair value, up to a maximum of the amount of the acquisition costs. If the fair value is lower than the carrying amount on the balance sheet date, the emission rights are impaired.



**Goodwill** is only written down if there is an impairment. Impairment testing takes place once a year and whenever there is an indication of an impairment.

**Property, plant and equipment** are measured at cost less depreciation and impairment over their useful lives. The revaluation method is not applied. Low-value assets are fully written off in the year of acquisition.

The cost of self-constructed plants includes direct costs, appropriate allocations of material and manufacturing costs, and a share of the general administrative costs of the divisions involved in the construction of the plants. Borrowing costs are capitalized to the extent that they apply to the purchase or the period of construction of qualifying assets.

Expenditures related to the scheduled maintenance of large-scale plants are separately capitalized and depreciated using the straight-line method over the period until the next planned turnaround. Costs for the replacement of components are recognized as assets when an additional future benefit is expected. The carrying amount of the replaced components is derecognized. Costs for maintenance and repair as part of normal business operations are recognized as an expense.

Both movable and immovable fixed assets are for the most part depreciated using the straight-line method, with the exception of production licenses and plants in the Oil & Gas segment, which are primarily depreciated based on use in accordance with the unit of production method. The estimated useful lives and depreciation methods applied are based on historical values, plans and estimates. These estimates also consider the period and distribution of future cash inflows and outflows. The depreciation methods, useful lives and residual values are reviewed at each balance sheet date. The weighted average depreciation periods were as follows:

#### Average depreciation in years

	2015	2014
Buildings and structural installations	23	24
Machinery and technical equipment	10	11
Long-distance natural gas pipelines	25	25
Miscellaneous equipment and fixtures	7	7

Impairments are recognized if the recoverable amount of the asset is lower than the carrying amount. The measurement is based on fair value less costs to sell or the value in use. The value in use is determined on the basis of future cash inflows and outflows, and the weighted average cost of capital after taxes, depending on tax rates and country-related risks. An impairment is recognized for the difference between the carrying amount and the recoverable amount. If the reasons for an impairment no longer exist, the write-downs are reversed up to the value of the asset, had an impairment not been recognized.

Investment properties held to realize capital gains or rental income are immaterial. They are valued at the lower of fair value or acquisition cost less depreciation.

**Leases:** A lease is an agreement whereby the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or series of payments. Leasing contracts are classified as either finance or operating leases.

Assets subject to operating leases are not capitalized. Lease payments are recognized in the income statement in the period they are incurred.

A lease is classified as a finance lease if it substantially transfers all the risks and rewards related to the leased asset. Assets subject to a finance lease are capitalized at the lower of the fair value of the leased assets or the present value of the minimum lease payments. A leasing liability is recorded in the same amount. The periodic lease payments must be divided into principal and interest components. The principal component reduces the outstanding liability, while the interest component represents an interest expense. Depreciation takes place over the shorter of the useful life of the asset or the period of the lease.

Leases can be embedded within other contracts. If separation is required under IFRS, then the embedded lease is recorded separately from its host contract and each component of the contract is carried and measured in accordance with the applicable regulations.

**Borrowing costs:** Borrowing costs directly incurred as part of the acquisition, construction or production of a qualifying asset are capitalized as part of the acquisition or production cost of that asset. A qualifying asset is an asset for which the time period necessary to make it ready for its intended use or sale is longer than one year. Borrowing costs are capitalized up to the date the asset is ready for its intended use. The borrowing costs were calculated based on a rate of 3.0% (2014: 4.0%), adjusted on a country-specific basis. All other borrowing costs are recognized as an expense in the period in which they are incurred.

**Government grants:** Government grants related to the acquisition or construction of property, plant and equipment reduce the acquisition or construction cost of the respective assets. Other government grants or government assistance are recognized immediately as other operating income or treated as deferred income and reversed over the underlying period.

**Investments accounted for using the equity-method:** The carrying amounts of these companies are adjusted annually based on the pro rata share of net income, dividends and other changes in equity. Should there be indications of a permanent reduction in the value of an investment, an impairment is recognized in the income statement.

**Inventories** are measured at acquisition cost or cost of conversion based on the weighted average method. If the market price or fair value of the sales product which forms the basis for the net realizable value is lower, then the sales products are written down to this lower value. The net realizable value is the estimated price in the ordinary course of business less the estimated costs of completion and the estimated selling costs.

In addition to direct costs, cost of conversion includes an appropriate allocation of production overhead costs based on normal utilization rates of the production plants, provided that they are related to the production process. Pensions, social services and voluntary social benefits are also included, as well as allocations for administrative costs, provided they relate to the production. Borrowing costs are not included in cost of conversion.

Inventories may be written down if the prices for the sales products decline, or in cases of a high rate of days sales of inventory (DSI). Write-downs on inventories are reversed if the reasons for them no longer apply.

The exception made by IAS 2 for traders is applied to the measurement of precious metal inventories. Accordingly, inventories held exclusively for trading purposes are to be measured at fair value less costs to sell. All changes in value are recognized in the income statement.

**Deferred taxes:** Deferred taxes are recorded for temporary differences between the carrying amount of assets and liabilities in the financial statements and the carrying amounts for tax purposes as well as for tax loss carryforwards and unused tax credits. This also comprises temporary differences arising from business combinations, with the exception of goodwill. Deferred tax assets and liabilities are calculated using the respective country-specific tax rates applicable for the period in which the asset or liability is realized or settled. Tax rate changes enacted or substantively enacted on or before the balance sheet date are taken into consideration.

Deferred tax assets are offset against deferred tax liabilities provided they are related to the same taxation authority and have the same maturities. Surpluses of deferred tax assets are only recognized provided that the tax benefits are likely to be realized. The valuation of deferred tax assets is based on the estimated probability of a reversal of the differences and the ability to utilize tax loss carryforwards and unused tax credits. This depends on whether future taxable profits will exist during the period in which temporary differences are reversed and in which tax loss carryforwards and unused tax credits can be claimed. Based on experience and the expected development of taxable income, it is assumed that the benefits of the recognized deferred tax assets will be realized. The valuation of deferred tax assets is based on internal projections of the future earnings of the particular Group company.

Changes in deferred taxes in the balance sheet are recorded as deferred tax expense or income if the underlying transaction is not to be recognized directly in equity or in income and expenses recognized in equity. For those effects which have been recognized in equity, changes to deferred tax assets and tax liabilities are also recognized directly in equity.

Deferred tax liabilities are recognized for differences between the proportional IFRS equity and the tax base of the investment in a consolidated subsidiary if a reversal of these differences is expected in the foreseeable future. Deferred tax liabilities are recognized for dividend distributions which are planned for the following year if these distributions lead to a reversal of temporary differences.

 For more information, see Note 11 from page 186 onward

### Financial instruments

Financial assets and financial liabilities are recognized in the balance sheet when the BASF Group becomes a party to a financial instrument. Financial assets are derecognized when the contractual rights to the cash flows from the financial asset expire or when the financial asset, with all risks and rewards of ownership, is transferred. Financial liabilities are derecognized when the contractual obligation expires, is discharged or cancelled. Regular way purchases and sales of financial instruments are accounted for using the settlement date; in precious metals trading, the day of trading is used.

The fair value of a financial instrument is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When pricing on an active market is available, for example on a stock exchange, this price is used for the measurement. Otherwise, the measurement is based on internal measurement models using current market parameters or external measurements, for example, from banks. These internal measurements predominantly use the net present value method and option pricing models.

If there is objective evidence of a permanent impairment of a financial instrument that is not measured at fair value through profit or loss, an impairment loss is recognized. If the reason for the impairment of loans and receivables as well as held-to-maturity financial instruments no longer exists, the impairment is reversed up to the amortized cost and recognized in the income statement. Impairments on financial instruments are booked in separate accounts.

Financial assets and liabilities are divided into the following measurement categories:

- **Financial assets and liabilities at fair value recognized in the income statement** consist of derivatives and other trading instruments. At BASF, this measurement category only includes derivatives. Derivatives are reported in other receivables and miscellaneous assets or other liabilities. BASF does not make use of the fair value option under IAS 39. The calculation of fair values is based on market parameters or measurement models based on such parameters. In some exceptional cases, the fair value is calculated using parameters which are not observable on the market.
- **Loans and receivables** comprise financial assets with fixed or determinable payments, which are not quoted on an active market and are not derivatives or classified as available-for-sale. This measurement category includes trade accounts receivable as well as other receivables and loans reported under other receivables and miscellaneous assets. Initial measurement is done at fair value, which generally matches the nominal value of the receivable or loan. Interest-free and low-interest long-term loans and receivables are recorded at present value. Subsequent measurement recognized in income is generally made at amortized cost using the effective interest method.

If there is objective evidence for an impairment of a receivable or loan, an individual valuation allowance is made. When assessing the need for a valuation allowance, regional and sector-specific conditions are considered. In addition, use is made of internal and external ratings as well as the assessments of debt collection agencies and credit insurers, when available. A portion of receivables is covered by credit insurance. Bank guarantees and letters of credit are used to an insignificant extent. Valuation allowances are only recognized for those receivables which are not covered by insurance or other collateral. The valuation allowances for receivables whose insurance includes a deductible are not recognized in excess of the amount of the deductible. Write-downs are based on historical values relating to customer solvency and the age, period overdue, insurance policies and customer-specific risks. In addition, a valuation allowance must be recognized when the contractual conditions which form the basis for the receivable are changed through renegotiation in such a way that the present value of the future cash flows decreases.

In addition, valuation allowances are made on receivables based on transfer risks for certain countries.

If, in a subsequent period, the amount of the valuation allowance decreases and the decrease can be related objectively to an event occurring after the valuation allowance was made, then it must be reversed in the income statement. Reversals of valuation allowances may not exceed amortized cost. Loans and receivables are derecognized when they are definitively found to be uncollectible.

- **Held-to-maturity financial assets** consist of nonderivative financial assets with fixed or determinable payments and a fixed term, for which there is the ability and intent to hold until maturity, and which do not fall under other valuation categories. Initial measurement is done at fair value, which matches the nominal value in most cases. Subsequent measurement is carried out at amortized cost, using the effective interest method.

For BASF, there are no material financial assets that fall under this category.

- **Available-for-sale financial assets** comprise financial assets which are not derivatives and do not fall under any of the previously stated valuation categories. This measurement category comprises shareholdings reported under the item other financial assets which are not accounted for using the equity method as well as short and long-term securities.

The measurement is carried out at fair value. Changes in fair value are recognized directly in equity under the item other comprehensive income and are only recognized in the income statement when the assets are disposed of or have been impaired. Subsequent reversals are recognized directly in equity (other comprehensive income). Only in the case of debt instruments are reversals up to the amount of the original impairment recognized in the income statement; reversals above this amount are recognized directly in equity. If the fair value of available-for-sale financial assets drops below acquisition costs, the assets are impaired if the decline in value is significant and can be considered lasting. The fair values are determined using market prices. Shareholdings whose fair value cannot be reliably determined are carried at acquisition cost and are written down in the case of an impairment. When determining the value of these shareholdings, the acquisition costs constitute the best estimate of their fair value. This category of shareholdings includes investments in other shareholdings, provided that these shares are not publicly traded. There are no plans to sell significant stakes in these shareholdings.

- **Financial liabilities which are not derivatives** are initially measured at fair value, which normally corresponds to the amount received. Subsequent measurement is carried out at amortized cost, using the effective interest method.
- **Cash and cash equivalents** consist primarily of cash on hand and bank balances with maturities of less than three months.

There were no reclassifications from one measurement category to another in 2015 and 2014. The same applies for transfers between levels in the fair value hierarchy.

Revenue from interest-bearing assets is recognized on the outstanding receivables on the balance sheet date using interest rates calculated by means of the effective interest method. Dividends from shareholdings not accounted for using the equity method are recognized when the shareholders' right to receive payment is established.

Derivative financial instruments can be embedded within other contracts. If IFRS requires separation, then the embedded derivative is accounted for separately from its host contract and measured at fair value.

**Financial guarantees** of the BASF Group are contracts that require compensation payments to be made to the guarantee holder if a debtor fails to make payment when due under the terms of the financial guarantee. Financial guarantees given by BASF are measured at fair value upon initial recognition. In subsequent periods, financial guarantees are carried at the higher of amortized cost or the best estimate of the present obligation on the financial reporting date.

**Cash flow hedge accounting** is applied for selected deals to hedge future transactions. The effective portion of the change in fair value of the derivative is thereby recognized directly in equity under other comprehensive income, taking deferred taxes into account. The ineffective portion is recognized immediately in the income statement. In the case of future transactions that will lead to a nonfinancial asset or a nonfinancial debt, the cumulative fair value changes in equity are either charged against the acquisition costs on initial recognition or recognized in profit or loss in the reporting period in which the hedged item is recorded in the income statement. For hedges based on financial assets or debts, the cumulative fair value changes of the hedges are transferred from equity to the income statement in the reporting period in which the hedged item is recognized in the income statement. The maturity of the hedging instrument is determined based on the effective date of the future transaction.

When **fair value hedges** are used, the asset or liability is hedged against the risk of a change in fair value. Here, changes in the market value of the derivative financial instruments are recognized in the income statement. Furthermore, the carrying amount of the underlying transaction is adjusted by the profit or loss resulting from the hedged risk, offsetting the effect in the income statement.

The derivatives employed by BASF for hedging purposes are effective hedges from an economic point of view. Changes in the fair value of the derivatives almost completely offset the changes in the value of the underlying transactions.

### Other comprehensive income

The income and expenses shown in other comprehensive income are divided into two categories. Items that will be recognized in the income statement in the future (known as “recycling”) and those that will not. The first category includes translation adjustments, the measurement of securities at fair value, and changes in the fair value of derivatives held to hedge future cash flows and net investments in a foreign operation. Items in other comprehensive income that will not be reclassified to the income statement at a future date include effects from the remeasurement of defined benefit plans.


### Debt

**Provisions for pensions and similar obligations:** Provisions for pensions are based on actuarial computations made according to the projected unit credit method, which applies valuation parameters that include: future developments in compensation, pensions and inflation, employee turnover and the life expectancy of beneficiaries. The resulting obligations are discounted on the balance sheet date using the market yields on high-quality corporate fixed-rate bonds with a minimum of one AA rating.

Similar obligations, especially those arising from commitments by North American Group companies to pay the healthcare costs and life insurance premiums of retired staff and their dependents, are reported under provisions for similar obligations.

The calculation of pension provisions is based on actuarial reports.

Actuarial gains and losses from changed estimations with regard to the actuarial assumptions used for calculating defined benefit obligations, the difference between standardized and actual returns on plan assets as well as the effects of the asset ceiling are recognized directly in equity as other comprehensive income.

 For more information on provisions for pensions and similar obligations, see Note 22 from page 199 onward

**Other provisions:** Other provisions are recognized when there is a present obligation as a result of a past event and when there is a probable outflow of resources whose amount can be reliably estimated. Provisions are recognized at the probable settlement value.

Provisions for German trade income tax, German corporate income tax and similar income taxes are determined and recognized in the amount necessary to meet the expected payment obligations less any prepayments that have been made. Other taxes to be assessed are considered accordingly.


Provisions are established for certain environmental protection measures and risks if there exist present legal or constructive obligations arising from a past event, and the expected cash outflow can be estimated with sufficient reliability. Provisions for restoration obligations primarily concern the filling of wells and the removal of production facilities upon the termination of production in the Oil & Gas segment. When the obligation arises, the provision is measured at the present value of the future restoration costs. An asset is capitalized for the same amount as part of the carrying amount of the plant concerned and is depreciated along with the plant. The discount on the provision is unwound annually until the time of the planned restoration.

Other provisions also include expected charges for the rehabilitation of contaminated sites, the recultivation of landfills, the removal of environmental contamination at existing production or storage facilities and other similar measures. If BASF is the only responsible party that can be identified, the provision covers the entire expected claim. At sites operated together with one or more partners, the provision generally covers only BASF's share of the expected claim. The determination of the amount of the provision is based on the available technical information on the site, the technology used, legal regulations, and official obligations.

Provisions are recognized for expected severance payments or similar personnel expenses as well as for demolition expenses and other charges related to restructuring measures that have been planned and publicly announced by management.

Provisions for long-service and anniversary bonuses are predominantly calculated based on actuarial principles. For contracts signed under the early retirement programs, approved supplemental payments are accrued in installments until the end of the exemption phase at the latest. Accounting and measurement follow the German Accounting Standards Committee e.V.'s Application Note 1 (IFRS) of December 2012.

Other provisions also cover risks resulting from legal disputes and proceedings, provided the criteria for recognizing a provision are fulfilled. In order to determine the amount of the provisions, the Company takes into consideration the facts related to each case, the size of the claim, claims awarded in similar cases and independent expert advice as well as assumptions regarding the probability of a successful claim and the range of possible claims. The actual costs can deviate from these estimates.

 For more information, see Note 26 from page 209 onward

The probable amount required to settle noncurrent provisions is discounted if the effect of discounting is material. In this case, the provision is recognized at present value. Assumptions must be made in determining the discount rate used for calculating noncurrent provisions. Financing costs related to unwinding the discount on provisions in subsequent periods are shown in other financial result.

## Other accounting policies

**Business combinations:** In business combinations, the acquired assets and liabilities are recognized at fair value on the date the acquirer effectively obtains control. The fair value of acquired assets and assumed liabilities at the date of exchange, as well as the useful lives of the acquired assets, are determined on the basis of assumptions. The measurement is largely based on projected cash flows. The actual cash flows can differ significantly from the cash flows used to determine the fair values. Independent external appraisals are used for the purchase price allocation of business combinations. Valuations in the course of business combinations are based on existing information as of the acquisition date.

**Groups of assets and liabilities held for disposal or disposal groups:** These comprise those assets and directly associated liabilities shown on the balance sheet whose sale in the context of a single transaction is highly probable. The assets and liabilities of disposal groups are recognized at the lower of the sum of their carrying amounts or fair value less costs to sell; this does not apply to assets which do not fall under the valuation principles of IFRS 5. Scheduled depreciation of noncurrent assets and the use of the equity method are suspended.

**Oil and gas production:** Exploration and development expenditures are accounted for using the successful efforts method. Under this method, costs of successful exploratory drilling as well as successful and dry development wells are capitalized.

An exploration well is a well located outside of an area with proven oil and gas reserves. A development well is a well which is drilled to the depth of a reservoir of oil or gas within an area with proven reserves.

Exploratory drilling is generally reported under construction in progress until its success can be determined. When the presence of hydrocarbons is proven such that the economic development of the field is probable, the costs remain capitalized as suspended well costs. At least once a year, all suspended wells are assessed from an economic, technical and strategic viewpoint to see if development is still intended. If this is not the case, the capitalized costs for the well in question are impaired. When reserves are proven, the exploration wells are reclassified as machinery and technical equipment when production begins.

Production costs include all costs incurred to operate, repair and maintain the wells as well as the associated plant and ancillary production equipment, including the associated depreciation.

The unit of production method is used to depreciate assets from oil and gas production at the field or reservoir level. Depreciation is generally calculated on the basis of the production of the period in relation to the proven, developed reserves.

Exploration expenses pertain exclusively to the Oil & Gas segment and include all costs related to areas with unproven oil or gas deposits. These include costs for the exploration of areas with possible oil or gas deposits, among others. Costs for geological and geophysical investigations are always reported under exploration expenses. In addition, this item includes valuation allowances for capitalized expenses for exploration wells which did not encounter proven reserves. Depreciation of successful exploratory drilling is reported under cost of sales.



An Exploration and Production Sharing Agreement is a type of contract in crude oil and gas concessions whereby the expenses and profits from the exploration, development and production phases are divided between the state and one or more exploration and production companies using defined keys. The revenue BASF is entitled to under such contracts is reported as sales.

The intangible asset from the marketing contract for natural gas from the Yuzhno Russkoye natural gas field is amortized based on BASF's share of the produced and distributed volumes.

Intangible assets in the Oil & Gas segment relate primarily to exploration and production rights. During the exploration phase, these are not subject to scheduled amortization but are tested for impairment annually. When economic success is determined, the rights are amortized in accordance with the unit of production method.

### Use of estimates and assumptions in the preparation of the Consolidated Financial Statements

The carrying amount of assets, liabilities and provisions, contingent liabilities and other financial obligations in the Consolidated Financial Statements depends on the use of estimates, assumptions and use of discretionary scope. Specific estimates or assumptions used in individual accounting or valuation methods are disclosed in their respective sections. They are based on the circumstances and estimates on the balance sheet date and affect the reported amounts of income and expenses during the reporting periods. These assumptions particularly concern discounted cash flows in the context of impairment tests and purchase price allocations; the determination of useful lives of property, plant and equipment and intangible assets; the carrying amount of investments; and the measurement of provisions for such things as employee benefits, warranties, trade discounts, environmental protection and taxes. Although uncertainty is appropriately incorporated in the valuation factors, actual results can differ from these estimates.

The assumptions for oil and gas prices concern internal company projections. The projections are based on an empirical analysis of the global oil and gas supply and demand. Short-term estimates up to three years consider the current prices on active markets or forward transactions. In long-term estimates, assumptions are made regarding factors such as inflation, production quantities and costs as well as energy efficiency and the substitution of energy sources. Using external sources and reports, the oil and gas price estimates are regularly checked for plausibility.

**Impairment tests** on assets are carried out whenever certain triggering events indicate that an impairment may be necessary. External triggering events include, for example, changes in customer industries, technologies used and economic downturns. Internal triggering events for an impairment test include lower product profitability, planned restructuring measures or physical damage to assets.

Impairment tests are based on a comparison of the carrying amount and the recoverable amount. The recoverable amount is the higher of fair value less costs to sell and the value in use. Value in use is generally determined using the discounted cash flow method. The estimation of cash flows and the assumptions used consider all information available on the respective balance sheet date on the future development of the operating business. Actual future developments may vary. Impairment testing relies upon the cash-generating unit's long-term earnings forecasts, which are based on economic trends. The weighted average cost of capital (WACC) based on the Capital Asset Pricing Model plays an important role in impairment testing. It comprises a risk-free rate, the market risk premium and the spread for the credit risk. Additional important assumptions are the forecasts for the detailed planning period and the terminal growth rates used.

 For more information, see Note 14 from page 189 onward

An impairment is recognized if the recoverable amount of the asset is lower than the carrying amount. The impairment of the asset (excluding goodwill) is made in the amount of the difference between these amounts.

The goodwill impairment test is based on cash-generating units. At BASF, the cash-generating units are predominantly the business units, or in certain cases, the divisions. If there is a need for a valuation allowance, the existing goodwill is, if necessary, completely written off as a first step. If there is further need for a valuation allowance, this is allocated to the remaining assets of the cash-generating unit. Goodwill impairments are reported under other operating expenses. Impairment reversals are not conducted for goodwill.



## 2 Scope of consolidation

### 2.1 Changes in scope of consolidation

In 2015, the scope of consolidation for the Consolidated Financial Statements encompassed 258 companies (2014: 281). Of this number, five companies were first-time consolidations (2014: four). Since the beginning of 2015, a total of 28 companies (2014: 32) were deconsolidated due to divestiture, merger, liquidation or immateriality.

First-time consolidations in 2015 comprised:

- A newly acquired company headquartered in Japan
- An additional four companies which had previously not been consolidated, headquartered in Germany, China, India and Pakistan

First-time consolidations in 2014 comprised:

- Two newly established companies with headquarters in Germany and China
- Two additional companies which had previously not been consolidated, headquartered in Germany and Peru

While BASF does not hold majority shares in ZAO Gazprom YRGM Trading, BASF is entitled to the earnings of the company due to profit distribution arrangements, so that the company is fully consolidated in the Group Consolidated Financial Statements.

A list of companies included in the Consolidated Financial Statements and a list of all companies in which BASF SE has a shareholding as required by Section 313(2) of the German Commercial Code is provided in the List of Shares Held.

For more information, see Note 3 on page 179

#### Scope of consolidation

	Europe	Thereof Germany	North America	Asia Pacific	South America, Africa, Middle East	2015	2014
<b>As of January 1</b>	<b>164</b>	<b>65</b>	<b>39</b>	<b>54</b>	<b>24</b>	<b>281</b>	<b>309</b>
Thereof proportionally consolidated	6	–	–	1	–	7	8
First-time consolidations	1	1	–	4	–	5	4
Thereof proportionally consolidated	–	–	–	–	–	–	–
Deconsolidations	24	11	2	1	1	28	32
Thereof proportionally consolidated	–	–	–	–	–	–	1
<b>As of December 31</b>	<b>141</b>	<b>55</b>	<b>37</b>	<b>57</b>	<b>23</b>	<b>258</b>	<b>281</b>
Thereof proportionally consolidated	6	–	–	1	–	7	7

#### Overview of impact of changes to the scope of consolidation (excluding acquisitions and divestitures)<sup>1</sup>

	2015		2014	
	Million €	%	Million €	%
<b>Sales</b>	<b>48</b>	<b>0.1</b>	<b>15</b>	<b>0.0</b>
Noncurrent assets	29	0.1	3	0.0
Thereof property, plant and equipment	15	0.1	3	0.0
Current assets	41	0.2	16	0.1
Thereof cash and cash equivalents	4	0.2	(3)	(0.2)
<b>Assets</b>	<b>70</b>	<b>0.1</b>	<b>19</b>	<b>0.0</b>
Equity	(7)	0.0	8	0.0
Noncurrent liabilities	(3)	0.0	0	0.0
Thereof financial indebtedness	–	–	0	0.0
Current liabilities	80	0.6	11	0.1
Thereof financial indebtedness	9	0.2	9	0.3
<b>Total equity and liabilities</b>	<b>70</b>	<b>0.1</b>	<b>19</b>	<b>0.0</b>
Other financial obligations	41	0.1	7	0.1

<sup>1</sup> The totals of the amounts from the deconsolidation of Wintershall Noordzee B.V. in connection with the asset swap with Gazprom are not shown in this table, but included in the table of assets and liabilities transferred as a result of the asset swap with Gazprom in Note 2.4 on page 178.

## 2.2 Joint operations

Proportionally consolidated joint operations particularly comprise:

- Ellba C.V., Rotterdam, Netherlands, which is operated jointly with Shell and produces propylene oxide and styrene monomer
- BASF DOW HPPO Production B.V.B.A., Antwerp, Belgium, which is operated jointly with The Dow Chemical Company to produce propylene oxide
- AO Achimgaz, Novy Urengoy, Russia, which is jointly operated with Gazprom for the production of natural gas and condensate

BASF holds a 50% share in each of these companies and controls them jointly with the respective partner. The companies sell their products directly to the partners. The partners ensure the ongoing financing of the companies by purchasing the production. They were therefore classified as joint operations in accordance with IFRS 11.

In the following table, the previous year's income statement and statement of cash flows include the share in Ellba Eastern Private Ltd., Singapore, which was sold on December 31, 2014.

### Financial information on proportionally consolidated companies (BASF stake, unconsolidated) (in million €)

	2015	2014
<b>Income statement</b>		
Sales	370	1,088
Income from operations	195	220
Income before taxes and minority interests	202	222
Net income	159	189
<b>Balance sheet</b>		
Noncurrent assets	540	446
Thereof property, plant and equipment	523	431
Current assets	152	172
Thereof marketable securities, cash and cash equivalents	53	41
<b>Assets</b>	<b>692</b>	<b>618</b>
Equity	515	453
Noncurrent liabilities	84	54
Thereof financial indebtedness	–	–
Current liabilities	93	111
Thereof financial indebtedness	–	–
<b>Total equity and liabilities</b>	<b>692</b>	<b>618</b>
Other financial obligations	479	412
<b>Statement of cash flows</b>		
Cash provided by operating activities	205	252
Cash used in investing activities	(159)	(224)
Cash used in / provided by financing activities	(36)	14
Net changes in cash and cash equivalents	10	42

A majority of the activities in the Oil & Gas segment's Exploration & Production business sector take place through joint activities which are not incorporated in separate companies. This primarily relates to activities in Germany, Norway and Argentina. These are generally accounted for as joint operations in accordance with IFRS 11 and contribute the largest part of the sales, depreciation and amortization, and fixed assets in the Oil & Gas segment.

## 2.3 Joint ventures and associated companies

Equity-accounted joint ventures particularly comprise:

- BASF-YPC Company Ltd., Nanjing, China, Verbund site operated together with Sinopec (BASF stake: 50%)
- Heesung Catalysts Corporation, Seoul, South Korea, which is operated jointly with Heesung (BASF stake: 50%)
- N.E. Chemcat Corporation, Tokyo, Japan, which is operated jointly with Sumitomo Metal Mining Co. Ltd. (BASF stake: 50%)
- Wintershall Noordzee B.V., Rijswijk, Netherlands, which is operated jointly with Gazprom (BASF stake: 50%) (effective September 30, 2015)

### Joint ventures accounted for using the equity method (BASF stake) (in million €)

	2015	2014
<b>Investments accounted for using the equity method as of the beginning of the year</b>	<b>1,263</b>	<b>1,218</b>
Proportional net income	25	87
Proportional change of other comprehensive income	80	96
<b>Total comprehensive income</b>	<b>105</b>	<b>183</b>
Capital measures/dividends/changes in the scope of consolidation/other adjustments	260	(119)
Other adjustments of income and expense	(35)	(19)
<b>Investments accounted for using the equity method as of the end of the year</b>	<b>1,593</b>	<b>1,263</b>

Equity-accounted associated companies particularly comprise:

- Achim Development, a limited liability company in Novy Urengoy, Russia (BASF stake: 25.01%) and Achim Trading, a closed joint stock company in Moscow, Russia (BASF stake 18.01%, economic share 25.01%), which together with Gazprom, develop and market the output from blocks IV and V of the Achimov formation
- Wintershall AG, Kassel, Germany, which operates Libyan exploration and production activities together with Gazprom Libyen Verwaltungs GmbH (BASF stake: 51%). Despite an investment of 51%, BASF does not exercise control according to IFRS 10, as contractual arrangements with the Libyan government strictly limit influence on variable returns after income taxes.
- Although BASF only has a 15.5% share in Nord Stream AG, Zug, Switzerland, this was classified as associated company, as BASF exercises significant influence over the company as its approval is required for relevant board resolutions

- OAO Severneftegazprom, Krasnoselkup, Russia (BASF stake: 25%, economic share: 35%)
- Shanghai Lianheng Isocyanate Co. Ltd., Shanghai, China (BASF stake: 35%)
- GASCADE Gastransport GmbH, Kassel, Germany (BASF stake: 50.02%)
- NEL Gastransport GmbH, Kassel, Germany (BASF stake: 50.02%). Due to the corporate governance structure of GASCADE Gastransport GmbH, Kassel, Germany, and NEL Gastransport GmbH in connection with requirements of Section 10 of the Energy Management Act (EnWG), BASF only exercises significant influence over both companies, despite an investment of more than 50%.

Effective July 1, 2015, BASF sold its 25% share in SolVin to its partner, Solvay.

**Associated companies accounted for using the equity method (BASF stake) (in million €)**

	2015	2014
<b>Investments accounted for using the equity method as of the beginning of the year</b>	<b>1,982</b>	<b>2,956</b>
Proportional net income	250	196
Proportional change of other comprehensive income	(21)	(213)
<b>Total comprehensive income</b>	<b>229</b>	<b>(17)</b>
Capital measures/dividends/changes in the scope of consolidation/other adjustments	621	(966)
Other adjustments of income and expense	11	9
<b>Investments accounted for using the equity method as of the end of the year</b>	<b>2,843</b>	<b>1,982</b>

**Financial information on companies accounted for using the equity method (BASF stake) (in million €)**

	2015	2014
<b>Income statement information</b>		
Sales	4,686	9,133
Income from operations	427	455
Income before taxes and minority interests	338	383
Net income	275	283
<b>Balance sheet information</b>		
Noncurrent assets	5,998	4,083
Thereof property, plant and equipment	3,791	3,393
Current assets	1,819	1,971
Thereof marketable securities, cash and cash equivalents	334	299
<b>Assets</b>	<b>7,817</b>	<b>6,054</b>
Equity	4,494	2,605
Noncurrent liabilities	2,285	2,152
Thereof financial indebtedness	813	1,148
Current liabilities	1,038	1,297
Thereof financial indebtedness	248	367
<b>Total equity and liabilities</b>	<b>7,817</b>	<b>6,054</b>

Neither of the companies accounted for using the equity method are deemed material for BASF. The table therefore includes the totals of the amounts from the financial statements of the companies accounted for using the equity method. Deviations between proportional equity and the carrying

amount of shareholdings accounted for using the equity method are mainly a consequence of changes in equity not affecting profit or loss.

## 2.4 Acquisitions and divestitures

### Acquisitions

In 2015, BASF acquired the following activities:

- On February 12, 2015, BASF concluded the acquisition, announced on December 8, 2014, of the business from Taiwan Sheen Soon Co., Ltd. (TWSS), Lukang Town, Taiwan. TWSS is a leading manufacturer of precursors for adhesives based on thermoplastic polyurethanes (TPU). Following receipt of the official approval, BASF also took over TWSS's activities on the Chinese mainland, effective December 1, 2015. The takeover consolidated BASF's market position in the areas of TPU extrusion and injection molding for various

industries. BASF can now offer its customers complete solutions for TPUs and TPU adhesives. At BASF, the activities have been integrated in the Performance Materials division.

- On February 18, 2015, BASF took over technologies, patents and know-how for silver nanowires from Seashell Technology LLC, based in San Diego, California. Through this acquisition, BASF has extended its product portfolio for displays in the Electronic Materials business unit, which is part of the Monomers division.

- On February 24, 2015, BASF acquired a 66% share from TODA KOGYO CORP., based in Hiroshima, Japan, in a company to which TODA had contributed its business with cathode materials for lithium-ion batteries, patents and production capacities in Japan. The transaction had been announced on October 30, 2014. The company focuses on the research, development, production, marketing and sales of a number of cathode materials. At BASF, the activities were assigned to the Catalysts division.
- On March 31, 2015, BASF concluded the acquisition of the polyurethane (PU) business from Polioles, S.A. de C.V., based in Lerma, Mexico, that was announced on July 10, 2014. Polioles is a joint venture with the Alpek Group. BASF holds a 50% share, which is accounted for using the equity method. The acquisition comprised marketing and selling rights, current assets, and to a minor extent, production facilities. The business has been assigned to the Performance Materials division.
- On April 23, 2015, BASF concluded an agreement with Lanxess Aktiengesellschaft, Cologne, Germany, on the acquisition and use of technologies and patents for the production of high-molecular-weight polyisobutene (HM PIB). The transaction furthermore included the acquisition of selling rights and current assets as well as a manufacturing agreement in which Lanxess will produce HM PIB exclusively for BASF. The activities were allocated to the Performance Chemicals division.

The purchase prices for businesses acquired in 2015 totaled €224 million; as of December 31, 2015, payments made for these amounted to €142 million. The purchase price allocations were carried out in accordance with IFRS 3. The resulting goodwill amounted to €19 million. In the course of the acquisition from TODA, minority interests in the amount of €42 million were recognized, measured at fair value. The purchase price allocations consider all the facts and circumstances prevailing as of the respective dates of acquisition which were known prior to the preparation of the Consolidated Financial Statements. In accordance with IFRS 3, should further facts and circumstances become known within the 12-month evaluation period, the purchase price allocation will be adjusted accordingly.

In 2014, BASF acquired the following activities:

- On October 31, 2014, BASF completed the acquisition of a 2.5% share in the Brage production field in the Norwegian North Sea from Tullow Oil Norge AS, Oslo, Norway, in the Oil & Gas segment. With this acquisition, BASF increased its investment in Brage to a total of 35.2%.
- On December 1, 2014, in its Oil & Gas segment, BASF concluded the acquisition agreed upon with Statoil Petroleum AS (Stavanger, Norway) on September 12, 2014, of shares in the Gjoa (5%) and Vega (24.5%) production fields, the Aasta Hansteen development project (24%), the Asterix discovery (19%) and the Polarled pipeline project (13.2%), in addition to four exploration licenses near Aasta Hansteen.

Along with Gjoa and Vega, Aasta Hansteen – with Polarled as its technical link to the European gas distribution network – and Asterix were also classified as businesses according to IFRS 3. Together with the exploration licenses, they were measured in accordance with IFRS 3. The purchase price amounted to \$1.25 billion, or €1.0 billion. Furthermore, BASF agreed to pay up to an additional \$50 million if the Aasta Hansteen field is developed according to the project plan.

The preliminary purchase price allocation from the previous year for the acquisition of assets from Statoil on December 1, 2014, was reviewed at the end of the 12-month evaluation period as per IFRS 3; parts were adjusted on the basis of more detailed information on the production and cost profiles of the acquired fields and licenses. This led to a €74 million reduction in noncurrent assets to €1,089 million, and a €57 million reduction in noncurrent liabilities to €517 million. Furthermore, the expected value of the payment obligation to Statoil in connection with the development of the Aasta Hansteen field was reduced by €10 million to zero. Taking into account a cash-effective adjustment of €4 million, the total purchase price was €961 million. The adjustments led to a total increase of goodwill in the amount of €7 million to €590 million. The goodwill recognized was nearly entirely due to deferred tax liabilities.

The purchase price allocation in connection with the acquisition of a 2.5% stake in Brage from the previous year was not adjusted.

The following overview shows the effects of the acquisitions conducted in 2015 and 2014 on the Consolidated Financial Statements. If acquisitions resulted in the transfer of assets or the assumption of additional liabilities, these are shown as a net impact.

**Effects of acquisitions and changes in the preliminary purchase price allocations**

	2015		2014	
	Million €	%	Million €	%
Goodwill	26	0.3	623	7.7
Other intangible assets	62	1.5	109	2.3
Property, plant and equipment	72	0.3	1,001	4.3
Financial assets	–	–	–	–
Other noncurrent assets	9	0.5	67	1.8
<b>Noncurrent assets</b>	<b>169</b>	<b>0.4</b>	<b>1,800</b>	<b>4.1</b>
<b>Current assets</b>	<b>74</b>	<b>0.3</b>	<b>4</b>	<b>0.0</b>
Thereof cash and cash equivalents	–	–	–	–
<b>Total assets</b>	<b>243</b>	<b>0.3</b>	<b>1,804</b>	<b>2.5</b>
<b>Equity</b>	<b>42</b>	<b>0.1</b>	<b>2</b>	<b>0.0</b>
<b>Noncurrent liabilities</b>	<b>(40)</b>	<b>(0.2)</b>	<b>621</b>	<b>2.3</b>
Thereof financial indebtedness	–	–	–	–
<b>Current liabilities</b>	<b>95</b>	<b>0.7</b>	<b>218</b>	<b>1.4</b>
Thereof financial indebtedness	–	–	–	–
<b>Total equity and liabilities</b>	<b>97</b>	<b>0.1</b>	<b>841</b>	<b>1.2</b>
<b>Payments related to acquisitions</b>	<b>146</b>		<b>963</b>	

**Divestitures**

In 2015, BASF divested the following activities:

- On March 31, 2015, BASF sold its white expandable polystyrene (EPS) business in North and South America to Alpek S.A.B. de C.V., Monterrey, Mexico. The sale comprised customer lists and current assets in addition to production facilities in Canada, Brazil, Argentina and the United States. The disposed activities had been part of BASF's Performance Materials division. The shares in Aislapol S.A., based in Santiago de Chile, Chile, were also sold. Polioles, a joint venture accounted for using the equity method, transferred its white EPS business to Alpek.
- On June 30, 2015, BASF concluded the divestiture announced on October 16, 2014, of its global textile chemicals business to Archroma Textiles S.à r.l., Luxembourg. The portfolio comprised products for pretreatment, printing and coating. The transaction furthermore involved the transfer of the subsidiary BASF Pakistan (Private) Ltd., based in Karachi, Pakistan, completed in the third quarter of 2015. The textile chemicals business had been part of the Performance Chemicals division.
- Effective July 1, 2015, BASF sold its 25% share in SolVin to its partner, Solvay. SolVin was established in 1999 by Solvay and BASF for the production of polyvinylchloride (PVC). At BASF, the SolVin investment and the income associated with it had been allocated to the Monomers division.
- On September 30, 2015, BASF concluded the agreed-upon sale of portions of its pharmaceutical ingredients and services business to Siegfried Holding AG, based in Zofingen, Switzerland. This involved the custom synthesis business and parts of the active pharmaceutical ingredients portfolio. The transaction comprised the divestiture of the production sites in Minden, Germany; Evionnaz, Switzerland; and Saint-Vulbas, France. At BASF, the activities had been allocated to the Nutrition & Health division.

- On November 1, 2015, BASF divested its global paper hydrous kaolin business to Imerys Kaolin, Inc., Roswell, Georgia, as announced on June 8, 2015. The divestiture included the kaolin processing production site in Wilkinson County, Georgia. For a limited period of time, BASF will take care of the order production for the paper hydrous kaolin business on behalf of Imerys, in order to smooth the transfer for the customers. The activities at BASF had been allocated to the Performance Chemicals division.

In the first-half and third quarter interim reports for 2015, an agreement was reported with Tellus Petroleum AS, Oslo, Norway, to sell shares in several fields and exploration licenses on the Norwegian continental shelf. On December 22, 2015, BASF complied with the request from Tellus Petroleum to release it from its obligation arising from the purchase contract, announced on June 18, 2015. The disposal group created for this planned transaction was dissolved.

**Asset swap with Gazprom**

In its Oil & Gas segment, BASF concluded the swap of assets of equal value with Gazprom on September 30, 2015, with retroactive economic effect to April 1, 2013. As a result of the transaction, BASF received an economic share of 25.01% in blocks IV and V of the Achimov formation of the Urengoy natural gas and condensate field in western Siberia. According to the development plan originally confirmed by Russian authorities, blocks IV and V have total hydrocarbon resources of 274 billion cubic meters of natural gas and 74 million metric tons of condensate. As these figures are still undergoing review, new findings may give rise to adjustments. Production is scheduled to start up in 2018.

In return, BASF transferred its shares in the previously jointly run natural gas trading and storage business to Gazprom. This included the 50.02% shares in the following: the natural gas trading company WINGAS GmbH, Kassel, Germany; the storage company astora GmbH & Co. KG, Kassel, Germany, which operates natural gas storage facilities in Rehden and Jemgum, Germany; and WINGAS Holding GmbH, Kassel, Germany, including its share in the natural gas storage facility in Haidach, Austria. BASF also transferred its 50% share in each of the natural gas trading companies Wintershall Erdgas Handelshaus GmbH & Co. KG, Berlin, Germany, and Wintershall Erdgas Handelshaus Zug AG, Zug, Switzerland. Gazprom furthermore became a 50% shareholder in Wintershall Noordzee B.V. in Rijswijk, Netherlands, which is active in the exploration and production of natural gas and crude oil deposits in the North Sea. Because the transaction is economically retroactive to April 1, 2013, BASF will pay Gazprom a cash compensation estimated to total €50 million.

As a result of the disposal of its 50% share in Wintershall Noordzee B.V., BASF no longer exerts control over the company alone, but rather shares joint control with Gazprom. In accordance with IFRS 10, Wintershall Noordzee B.V. was reclassified in the Consolidated Financial Statements from a fully consolidated company to a joint venture accounted for using the equity method from this point in time.

The following table shows the balance sheet values of the assets and liabilities that went to Gazprom as a result of the swap, taking into account 100% of the balance sheet values of Wintershall Noordzee B.V., as of the point of transfer from full consolidation to the equity method:

**Assets and liabilities retired as part of the asset swap with Gazprom (Wintershall Noordzee B.V. included at 100%)** (in million €)

	Sep. 30, 2015
Intangible assets	192
Property, plant and equipment	1,157
Inventories	710
Accounts receivable, trade	569
Positive fair values of derivatives	328
Other receivables and miscellaneous assets	261
Cash and cash equivalents	284
<b>Total assets</b>	<b>3,501</b>
Provisions for pensions and similar obligations	29
Other provisions	394
Accounts payable, trade	573
Negative fair values of derivatives	376
Other liabilities	1,079
<b>Liabilities</b>	<b>2,451</b>
Income and expense recognized directly in equity (recycled to income upon disposal)	102
<b>Net assets</b>	<b>1,152</b>
Minority interests	(344)
<b>Proportion of net assets</b>	<b>808</b>

The swap of assets of equal value is treated in accordance with IAS 16.26. As per this regulation, the fair value of the assets received is deemed to constitute their acquisition cost.

The acquisition of the 25.01% economic share in blocks IV and V of the Achimov formation was conducted through a capital share in two Russian companies that will be equity accounted as associated companies in BASF's Consolidated Financial Statements due to the material influence BASF exercises over them. As of September 30, 2015, both companies, together with the now-50% share in Wintershall Noordzee B.V., were measured at fair value and reported as investments accounted for using the equity method.

The following overview shows the individual components of BASF's profit realization from the asset swap with Gazprom and the reclassification of Wintershall Noordzee B.V.:

**Profit realization from asset swap with Gazprom and reclassification of Wintershall Noordzee B.V.**

(in million €)

	Sep. 30, 2015
Fair value 25.01% Achimov IV/V	779
Fair value 50% Wintershall Noordzee B.V.	407
Disposed proportion of net assets	(808)
Expected compensation payment and other expenses	(64)
<b>Income from swap and reclassification</b>	<b>314</b>

To determine the fair value of the investments in Achimov IV/V and Wintershall Noordzee B.V. as per IAS 28, the proportional share of assets and liabilities was measured in accordance with IFRS 3. As per IFRS 3, the purchase price allocation is to be adjusted accordingly if facts and circumstances become known within the 12-month evaluation period that apply at the time of sale or transfer. Accordingly, the determined fair values and the resulting earnings arising from the asset swap and the transfer from Wintershall Noordzee B.V. are to be seen as preliminary.

In 2014, BASF divested the following activities:

- On March 25, 2014, BASF concluded the sale of selected oil and gas investments in the North Sea to the Hungarian MOL Group, as agreed upon on December 12, 2013. In addition to 14 licenses, MOL also purchased BASF's shares in the infrastructure of the Sullom Voe Terminal and in the Brent Pipeline System.
- On June 2, 2014, BASF completed the sale of its PolyAd Services business to Edgewater Capital Partners, L.P. The activities had been allocated to the Performance Chemicals division.
- Effective as of November 17, 2014, BASF sold its 50% share in Styrolution Holding GmbH, Frankfurt am Main, Germany, to the INEOS Group. The partnership agreement of 2011 already included a cross option, giving BASF the option to sell its share in Styrolution and INEOS the option to buy BASF's share in Styrolution. The share in Styrolution and the related income had been allocated to Other.
- On December 31, 2014, BASF completed the sale of its 50% stake in the joint operation Ellba Eastern Private Ltd., Singapore, which produces propylene oxide and styrene monomers, to its partner Shell. The activities of Ellba Eastern had been allocated to BASF's Petrochemicals division as well as to Other.



The following overview shows the effects on the Consolidated Financial Statements of the asset swap with Gazprom and the divestitures conducted in 2015 and 2014. The line item sales

reflects the year-on-year decline resulting from divestitures. The impact on equity relates mainly to gains and losses from divestitures.

#### Effects of divestitures and asset swap with Gazprom

	2015		2014	
	Million €	%	Million €	%
<b>Sales</b>	<b>(3,948)</b>	<b>(5.6)</b>	<b>(157)</b>	<b>(0.2)</b>
<b>Noncurrent assets</b>	<b>(408)</b>	<b>(0.9)</b>	<b>(343)</b>	<b>(0.8)</b>
Thereof property, plant and equipment	(1,276)	(5.1)	(250)	(1.1)
<b>Current assets</b>	<b>(2,199)</b>	<b>(9.0)</b>	<b>(644)</b>	<b>(2.3)</b>
Thereof cash and cash equivalents	(285)	(12.7)	(1)	0.0
<b>Total assets</b>	<b>(2,607)</b>	<b>(3.7)</b>	<b>(987)</b>	<b>(1.4)</b>
<b>Equity</b>	<b>185</b>	<b>0.6</b>	<b>763</b>	<b>2.7</b>
<b>Noncurrent liabilities</b>	<b>(942)</b>	<b>(3.8)</b>	<b>(104)</b>	<b>(0.4)</b>
Thereof financial indebtedness	–	–	–	–
<b>Current liabilities</b>	<b>(1,148)</b>	<b>(8.1)</b>	<b>(309)</b>	<b>(1.9)</b>
Thereof financial indebtedness	(1)	0.0	–	–
<b>Total equity and liabilities</b>	<b>(1,905)</b>	<b>(2.7)</b>	<b>350</b>	<b>0.5</b>
<b>Proceeds from divestitures</b>	<b>702</b>		<b>1,337</b>	

### 3 BASF Group List of Shares Held in accordance with Section 313(2) of the German Commercial Code

The list of consolidated companies and the complete list of all companies in which BASF SE has a share as required by Section 313(2) of the German Commercial Code and information for exemption of subsidiaries from accounting and

disclosure obligations are an integral component of the audited Consolidated Financial Statements submitted to the electronic Federal Gazette. The list of shares held is also published online.

For more information, see [basf.com/en/governance](http://basf.com/en/governance)

### 4 Reporting by segment and region

Since January 1, 2015, BASF's business has been conducted by 13 operating divisions aggregated into five segments for reporting purposes. The divisions are allocated to the segments based on their business models.

The Chemicals segment entails the classical chemicals business with basic chemicals and intermediates. It forms the core of BASF's Production Verbund and is the starting point for a majority of the value chains. In addition to supplying the chemical industry and other sectors, the segment ensures that other BASF divisions are supplied with chemicals for producing downstream products. The Chemicals segment comprises the Petrochemicals, Monomers and Intermediates divisions.

Until the end of 2014, the Performance Products segment consisted of the Dispersions & Pigments, Care Chemicals, Nutrition & Health, Paper Chemicals and Performance Chemicals divisions. Customized products allow customers to make their production processes more efficient or to give their products improved application properties. The Paper Chemicals division was dissolved as of January 1, 2015. The paper chemicals business is being continued in the Performance Chemicals and Dispersions & Pigments divisions.

The Functional Materials & Solutions segment bundles system solutions, services and innovative products for specific sectors and customers, in particular for the automotive, electronic, chemical and construction industries. It is made up of the Catalysts, Construction Chemicals, Coatings, and Performance Materials divisions.

The Agricultural Solutions segment consists of the Crop Protection division, whose products secure yields and guard crops against fungal infections, insects and weeds, in addition to serving as biological and chemical seed treatments. Plant biotechnology research is not assigned to this segment; it is reported in Other.

Until September 30, 2015, the Oil & Gas segment comprised the Oil & Gas division with its Exploration & Production and Natural Gas Trading business sectors. At the end of the third quarter of 2015, BASF exited the natural gas trading and storage business, operated together with Gazprom to that point in time, and as of October 1, 2015, has concentrated on the exploration and production of oil and gas as well as on the transport of natural gas.

Activities not assigned to a particular division are reported under Other. These include the sale of raw materials, engineering and other services, rental income and leases, the production of precursors not assigned to a particular segment, the steering of the BASF Group by corporate headquarters, and corporate research.

With cross-divisional corporate research, BASF is creating new businesses and ensuring its long-term competence with regard to technology and methods. This includes plant biotechnology research.

Earnings from currency conversion that are not allocated to the segments are also reported under Other, as are earnings from the hedging of raw material prices and foreign currency

exchange risks. Furthermore, revenues and expenses from the long-term incentive (LTI) program are reported here.

Transfers between the segments are generally executed at adjusted market-based prices which take into account the higher cost efficiency and lower risk of Group-internal transactions. Assets, as well as their depreciation and amortization, are allocated to the segments based on economic control. Assets used by more than one segment are allocated based on the percentage of usage.

**Income from operations (EBIT) of Other** (in million €)

	2015	2014
Corporate research costs	(402)	(389)
Costs of corporate headquarters	(233)	(218)
Other businesses	170	590
Foreign currency results, hedging and other measurement effects	(220)	(2)
Miscellaneous income and expenses	(300)	(114)
<b>Income from operations of Other</b>	<b>(985)</b>	<b>(133)</b>

**Income from operations of Other** decreased by €852 million year-on-year to minus €985 million.

The previous year had primarily included disposal gains of €458 million, shown under **other businesses**, from BASF's share in Styrolution Holding GmbH, Frankfurt am Main, Germany.

Furthermore, the item **foreign currency results, hedging and other measurement effects** declined in comparison with 2014. This was partly due to higher currency losses. It was

also the result of expenses arising from the addition to provisions for the long-term incentive program in the amount of €49 million in 2015; in the previous year, by contrast, income in the amount of €54 million had been recognized from the reversal of such provisions.

**Miscellaneous income and expenses** decreased especially as a result of expenses for BASF's 150th anniversary celebrations in 2015.

**Assets of Other** (in million €)

	December 31, 2015	December 31, 2014
Assets of businesses included in Other	2,097	2,241
Financial assets	526	540
Deferred tax assets	1,791	2,193
Cash and cash equivalents/marketable securities	2,262	1,737
Net interest income from overfunded pensions	133	91
Other liabilities/deferrals	2,823	3,027
<b>Assets of Other</b>	<b>9,632</b>	<b>9,829</b>

**Reconciliation reporting Oil & Gas** (in million €)

	2015	2014
<b>Income from operations</b>	<b>1,072</b>	<b>1,688</b>
Net income from shareholdings	(6)	246
Other income	267	124
<b>Income before taxes and minority interests</b>	<b>1,333</b>	<b>2,058</b>
Income taxes	(168)	(519)
<b>Income before minority interests</b>	<b>1,165</b>	<b>1,539</b>
Minority interests	(115)	(75)
<b>Net income</b>	<b>1,050</b>	<b>1,464</b>

The reconciliation reporting Oil & Gas reconciles the income from operations in the Oil & Gas segment with the contribution of the segment to the net income of the BASF Group.

**Income from operations** declined due to lower oil and gas prices, and the currency-related decrease in earnings contributions from BASF's share in the Yuzhno Russkoye natural gas field. Impairments for exploration and production licenses dampened earnings by €609 million in 2015 and €230 million in 2014.

In 2015, the asset swap with Gazprom led to income in the amount of €314 million. In 2014, the sale of oil and gas investments in the North Sea to the MOL Group resulted in income of €132 million. As a result of the asset swap with Gazprom on September 30, 2015, the share of earnings from the exited natural gas trading and storage business as well as from the

50% share in Wintershall Noordzee B.V., Rijswijk, Netherlands, was no longer included in the income from operations in the fourth quarter of 2015.

**Income from shareholdings** in the Oil & Gas segment decreased significantly. This was due to the sale of VNG – Verbundnetz Gas AG, Leipzig, Germany, to EWE AG in 2014.

**Other income** in the oil and gas business relates to income and expenses not included in the segment's income from operations, interest result and other financial result. As in the previous year, other income largely consisted of currency effects from Group loans.

Significantly lower earnings contributions from Norway, due in part to the impairments recognized there as well as to currency effects, led to a considerable decline in **income tax** and the tax rate.

#### Segments 2015 (in million €)

	Chemicals	Performance Products	Functional Materials & Solutions	Agricultural Solutions	Oil & Gas	Other	BASF Group
Sales	14,670	15,648	18,523	5,820	12,998	2,790	70,449
Intersegmental transfers	5,300	463	873	28	766	(3)	7,427
Sales including intersegmental transfers	19,970	16,111	19,396	5,848	13,764	2,787	77,876
Income from operations	2,131	1,340	1,607	1,083	1,072	(985)	6,248
Assets	12,823	14,232	13,341	8,435	12,373	9,632	70,836
Thereof goodwill	58	2,201	2,326	2,048	1,660	70	8,363
other intangible assets	155	1,428	1,181	342	1,030	38	4,174
property, plant and equipment	7,933	4,958	3,645	1,488	6,421	815	25,260
investments accounted for using the equity method	840	195	387	–	2,589	425	4,436
Debt	3,550	4,639	3,511	1,628	2,214	23,749	39,291
Research expenses	207	383	392	514	50	407	1,953
Additions to property, plant and equipment and intangible assets	1,859	964	854	402	1,823	111	6,013
Amortization of intangible assets and depreciation of property, plant and equipment	959	949	621	238	1,515	119	4,401
Thereof impairments	24	86	67	10	500	3	690

#### Segments 2014 (in million €)

	Chemicals	Performance Products	Functional Materials & Solutions	Agricultural Solutions	Oil & Gas	Other	BASF Group
Sales	16,968	15,433	17,725	5,446	15,145	3,609	74,326
Intersegmental transfers	6,135	489	832	37	907	16	8,416
Sales including intersegmental transfers	23,103	15,922	18,557	5,483	16,052	3,625	82,742
Income from operations	2,396	1,417	1,150	1,108	1,688	(133)	7,626
Assets	12,498	14,502	12,987	7,857	13,686	9,829	71,359
Thereof goodwill	59	2,099	2,218	1,931	1,765	69	8,141
other intangible assets	284	1,653	1,220	364	1,248	57	4,826
property, plant and equipment	6,898	4,637	3,166	1,240	6,676	879	23,496
investments accounted for using the equity method	841	177	348	–	1,480	399	3,245
Debt	3,920	5,049	3,508	1,687	3,669	25,331	43,164
Research expenses	185	369	379	511	50	390	1,884
Additions to property, plant and equipment and intangible assets	2,085	849	650	391	3,162	148	7,285
Amortization of intangible assets and depreciation of property, plant and equipment	816	815	528	189	938	131	3,417
Thereof impairments	54	18	45	2	230	5	354

Regions 2015 (in million €)

	Europe	Thereof Germany	North America	Asia Pacific	South America, Africa, Middle East	BASF Group
<b>Location of customers</b>						
Sales	36,897	13,483	15,390	12,334	5,828	70,449
Share	% 52.4	19.1	21.8	17.5	8.3	100.0
<b>Location of companies</b>						
Sales	38,675	28,229	15,665	11,712	4,397	70,449
Sales including intersegmental transfers <sup>1</sup>	46,056	34,297	18,311	12,384	4,623	81,374
Income from operations	4,174	2,303	1,295	445	334	6,248
Assets	38,993	20,307	15,968	11,002	4,873	70,836
Thereof intangible assets	6,845	2,467	4,406	839	447	12,537
property, plant and equipment	13,877	6,942	5,613	4,053	1,717	25,260
investments accounted for using the equity method	3,009	1,182	113	1,314	–	4,436
Additions to property, plant and equipment and intangible assets	3,162	1,446	1,263	986	602	6,013
Amortization of intangible assets and depreciation of property, plant and equipment	2,889	1,081	911	422	179	4,401
Employees as of December 31	70,079	52,837	17,471	17,562	7,323	112,435

Regions 2014 (in million €)

	Europe	Thereof Germany	North America	Asia Pacific	South America, Africa, Middle East	BASF Group
<b>Location of customers</b>						
Sales	40,911	15,126	15,213	12,341	5,861	74,326
Share	% 55.0	20.4	20.5	16.6	7.9	100.0
<b>Location of companies</b>						
Sales	42,854	32,241	15,467	11,643	4,362	74,326
Sales including intersegmental transfers <sup>1</sup>	50,401	38,346	17,981	12,270	4,595	85,247
Income from operations	5,010	1,894	1,548	673	395	7,626
Assets	41,487	22,987	14,605	10,251	5,016	71,359
Thereof intangible assets	7,631	2,725	4,088	795	453	12,967
property, plant and equipment	13,979	7,172	4,638	3,279	1,600	23,496
investments accounted for using the equity method	1,951	1,229	35	1,259	–	3,245
Additions to property, plant and equipment and intangible assets	4,880	1,774	917	835	653	7,285
Amortization of intangible assets and depreciation of property, plant and equipment	2,304	1,169	662	331	120	3,417
Employees as of December 31	71,474	53,277	17,120	17,060	7,638	113,292

<sup>1</sup> The sum of sales including intersegmental transfers for all the regions can differ from the sum of sales including intersegmental transfers for all the segments, as the segments are viewed globally, and therefore shipments and services between regions within the same segment are not classified as transfers.

In the United States, sales to third parties in 2015 amounted to €13,831 million (2014: €13,877 million) according to company location and €13,302 million (2014: €13,329 million) according to customer location. In the United States, intangible assets,

property, plant and equipment, and investments accounted for using the equity method amounted to €9,262 million compared with €7,983 million in the previous year.

## 5 Earnings per share


### Earnings per share

	2015	2014
Net income million €	3,987	5,155
Weighted-average number of outstanding shares 1,000	918,479	918,479
<b>Earnings per share €</b>	<b>4.34</b>	<b>5.61</b>
Diluted earnings per share €	4.33	5.60

In accordance with IAS 33, a potential dilutive effect must be considered in the diluted earnings per share for those BASF shares which will be granted in the future as a part of the BASF share program “plus.” This applies regardless of the fact that the necessary shares are acquired by third parties on the market on behalf of BASF, and the fact that there are no plans for the issuance of new shares. The dilutive effect of the issue of plus shares amounted to €0.01 in 2015 (2014: €0.01).

## 6 Functional costs

Under the cost-of-sales method, functional costs incurred by the operating functions are determined on the basis of cost center accounting. The functional costs particularly contain the personnel costs, depreciation and amortization accumulated on the underlying final cost centers as well as allocated costs within the cost accounting cycle. Operating expenses that cannot be allocated to the functional costs are reported as other operating expenses.

 For more on other operating expenses, see Note 8 from page 184

### Cost of sales

Cost of sales includes all production and purchase costs of the company's own products as well as merchandise which has been sold in the period, particularly plant, energy and personnel costs.

### Selling expenses

Selling expenses particularly include marketing and advertising costs, freight costs, packaging costs, distribution management costs, commissions, and licensing costs.

### General and administrative expenses

General and administrative expenses primarily include the costs of the central units, the costs of managing business units and divisions, and costs of general management, the Board of Executive Directors and the Supervisory Board.

### Research and development expenses

Research and development expenses include the costs resulting from research projects as well as the necessary license fees for research activities.

 For more on research and development expenses by segment, see Note 4 on page 181

## 7 Other operating income

Million €	2015	2014
Income from the adjustment and reversal of provisions recognized in other operating expenses	118	181
Revenue from miscellaneous revenue-generating activities	179	165
Income from foreign currency and hedging transactions	305	398
Income from the translation of financial statements in foreign currencies	101	75
Gains on the disposal of fixed assets and divestitures	525	772
Income on the reversal of valuation allowances for business-related receivables	41	47
Other	735	593
<b>Other operating income</b>	<b>2,004</b>	<b>2,231</b>

**Income from the adjustment and reversal of provisions recognized in other operating expenses** in 2014 included income of €79 million from the reversal of the provision for the long-term incentive (LTI) program; this was due to the decline in the BASF share price in 2014. In 2015, however, an expense of €53 million arose from the LTI program, and was recognized in other operating expenses.

 For more information, see Note 8 from page 184 onward

Furthermore, the reversal of provisions in both years was largely related to closures and restructuring measures, employee obligations, risks from lawsuits and damage claims, and various other items as part of the normal course of business. Provisions were reversed if the circumstances on the balance sheet date were such that utilization was no longer expected, or expected to a lesser extent.

**Revenue from miscellaneous revenue-generating activities** primarily included income from rentals, property sales, catering operations, cultural events and logistics services.

**Income from foreign currency and hedging transactions** pertained to the foreign currency translation of receivables and payables as well as changes in the fair value of currency derivatives and other hedging transactions. The decline in comparison with the previous year was attributable to lower income as a result of the depreciation of the Russian ruble.

**Income from the translation of financial statements in foreign currencies** contained gains from the translation of companies whose local currency is different from the functional currency.

**Gains on the disposal of fixed assets and divestitures** in the amount of €314 million resulted from the asset swap with Gazprom. Income of €71 million was related to the sale of the global textile chemicals business to Archroma Textiles S.à r.l., Luxembourg. Additional income of €39 million was attributable to the sale of the white expandable polystyrene (EPS) business to Alpek S.A.B. de C.V., Monterrey, Mexico. Furthermore, income in the amount of €37 million arose from the sale of buildings in China and India as well as income in the amount of €29 million from the sale of the custom synthesis business and parts of the active pharmaceutical ingredients portfolio to Siegfried Holding AG, Zofingen, Switzerland. The previous year mainly included gains from the sale of the 50% share in Styrolution Holding GmbH, Frankfurt am Main, Germany, in the amount of €458 million to INEOS. Further income of €132 million was related to the sale of selected oil and gas investments in the North Sea to the Hungarian MOL Group. Additional income in the amount of €109 million resulted from the sale to Shell of the share in the Ellba Eastern Private Ltd. joint operation in Singapore, as well as €31 million from the sale of the PolyAd Services business to Edgewater Capital Partners, L.P., Cleveland, Ohio.

**Income from the reversal of valuation allowances for business-related receivables** resulted mainly from the settlement of customer-related receivables for which a valuation allowance had been recorded.

**Other income** included government grants and government assistance from several countries amounting to €135 million in 2015 and €112 million in 2014. In both years, these were primarily attributable to price compensation from the Argentinian government for gas producers, which was introduced in connection with the New Gas Price Scheme (NGPS) in response to the lower, partly locally regulated gas prices.

Further income resulted from refunds in the amount of €254 million in 2015 and €122 million in 2014. These were predominantly due in both years to insurance refunds arising from a plant outage at the Ellba C.V. joint operation in Moerdijk, Netherlands. In 2015, income also arose from a one-off payment for a price revision relating to the previous year in the Oil & Gas segment as well as a one-off payment from Tellus Petroleum AS, Oslo, Norway, in connection with the intended sale of selected assets on the Norwegian continental shelf, which was not completed. The previous year had included income from reimbursement claims in the amount of €43 million.

Moreover, income in both years was related to gains from precious metal trading, the reversal of impairments on property, plant and equipment, tax refunds, income from the adjustment of pension plans, and a number of other items.

## 8 Other operating expenses

Million €	2015	2014
Restructuring measures	306	176
Environmental protection and safety measures, costs of demolition and removal, and planning expenses related to capital expenditures that are not subject to mandatory capitalization	457	330
Amortization, depreciation and impairments of intangible assets and property, plant and equipment	675	370
Costs from miscellaneous revenue-generating activities	179	160
Expenses from foreign-currency and hedging transactions as well as from the measurement of LTI options	639	439
Losses from the translation of the financial statements in foreign currencies	92	88
Losses from the disposal of fixed assets and divestitures	40	28
Oil and gas exploration expenses	195	132
Expenses from the addition of valuation allowances for business-related receivables	81	87
Expenses from the use of inventories measured at market value and the derecognition of obsolete inventory	259	225
Other	717	594
<b>Other operating expenses</b>	<b>3,640</b>	<b>2,629</b>

Expenses for **restructuring measures** were primarily related to severance payments amounting to €69 million in 2015 and €40 million in 2014. Further expenses for restructuring measures amounting to €15 million concerned one site in the United States in the Petrochemicals division. In the Dispersions & Pigments division, expenses arose in the amount of €16 million in 2015 and €12 million in 2014; these concerned several sites worldwide. Furthermore, expenses of €15 million were incurred for a regional restructuring project in South America as well as the outsourcing of the computer centers. In 2014, expenses of €9 million had arisen from measures at several sites in the Care Chemicals division.

Expenses arose from **environmental protection and safety measures, demolition and removal, and planning expenses related to capital expenditures that are not subject to mandatory capitalization** according to IFRS. Expenses for demolition, removal and project planning totaled €376 million in 2015 and €286 million in 2014. These especially pertained to the Ludwigshafen site in both years. Further expenses of €37 million in 2015 and €19 million in 2014 were due to additional environmental provisions. In both years, these primarily concerned several discontinued sites in North America and Switzerland.



**Amortization, depreciation and impairments of intangible assets and property, plant and equipment** arose from impairments in the Oil & Gas segment in the amount of €500 million in 2015 and €230 million in 2014. Further impairments of €57 million concerned the Functional Materials & Solutions segment in 2015 (2014: €42 million). Impairments of €53 million were recognized the Performance Products segment in 2015. Impairments in the Chemicals segment amounted to €18 million in 2015 and €33 million in 2014.

Costs from miscellaneous revenue-generating activities concerned the respective item presented in other operating income.

 For more information, see Note 7 from page 183 onward

**Expenses from foreign-currency and hedging transactions as well as from the measurement of LTI options** were related to foreign currency translations of receivables and payables as well as changes in the fair value of currency derivatives and other hedging transactions. Compared with the previous year, higher expenses particularly arose from the appreciation of the U.S. dollar against various currencies. In 2015, there was also an expense for the long-term incentive (LTI) program of €53 million. In 2014, an expense of €25 million was recognized for newly issued LTI options at the end of the year.

**Losses from the disposal of fixed assets and divestitures** in 2015 mainly stemmed from the sale of the global paper hydrous kaolin business to Imerys Kaolin, Inc., Roswell, Georgia. Losses in 2014 arose predominantly from losses of €9 million in connection with the disposal of the Brattvåg site in Norway in the Nutrition & Health division.

**Other expenses** included expenses of €121 million for BASF's 150th anniversary.

The previous year had included strike-related expenses in connection with the construction of the acrylic acid and super-absorbent production complex in Camaçari, Brazil, in the amount of €16 million. Furthermore, in both years, expenses arose from the implementation of further projects, REACH, and the provision of services.

## 9 Income from companies accounted for using the equity method

Million €	2015	2014
Proportional net income	275	283
Thereof joint ventures	25	87
associated companies	250	196
Other adjustments of income and expense	(24)	(10)
Thereof joint ventures	(35)	(19)
associated companies	11	9
<b>Income from companies accounted for using the equity method</b>	<b>251</b>	<b>273</b>

The decline in income from companies accounted for using the equity method was predominantly the result of an impairment at Wintershall Noordzee B.V., Rijswijk, Netherlands. The reduction was partly alleviated by higher earnings contributions from other shareholdings, particularly OAO Severneftegazprom, Krasnoselkup, Russia, and BASF-YPC Company Ltd., Nanjing, China.

The Oil & Gas segment contributed €106 million to **income from companies accounted for using the equity method**. Especially contributing to this total were OAO Severneftegazprom, Krasnoselkup, Russia; Nord Stream AG, Zug, Switzerland; and GASCADE Gastransport GmbH, Kassel, Germany. Further significant earnings contributions were made by shareholdings in BASF-YPC Company Ltd., Nanjing, China; Lucura Versicherungs AG, Ludwigshafen am Rhein, Germany; and BASF SONATRACH Propanchem S.A., Tarragona, Spain.

## 10 Financial result

Million €	2015	2014
Dividends and similar income	47	52
Income from the disposal of shareholdings	31	245
Income from profit transfer agreements	2	5
Income from tax allocation to participating interests	–	1
<b>Income from other shareholdings</b>	<b>80</b>	<b>303</b>
Losses from loss transfer agreements	(16)	(9)
Write-downs on/losses from the sale of shareholdings	(55)	(16)
<b>Expenses from other shareholdings</b>	<b>(71)</b>	<b>(25)</b>
Interest income from cash and cash equivalents	184	178
Interest and dividend income from securities and loans	29	29
<b>Interest income</b>	<b>213</b>	<b>207</b>
<b>Interest expenses</b>	<b>(638)</b>	<b>(711)</b>
Net interest income from overfunded pension plans and similar obligations	3	2
Income from the capitalization of borrowing costs	149	156
Miscellaneous financial income	–	–
<b>Other financial income</b>	<b>152</b>	<b>158</b>
Write-downs on/losses from the disposal of securities and loans	(18)	(2)
Net interest expense from underfunded pension plans and similar obligations	(196)	(151)
Net interest expense from other long-term personnel obligations	(3)	(22)
Interest compounding on other noncurrent liabilities	(68)	(75)
Miscellaneous financial expenses	(151)	(105)
<b>Other financial expenses</b>	<b>(436)</b>	<b>(355)</b>
<b>Financial result</b>	<b>(700)</b>	<b>(423)</b>

Income from shareholdings was €269 million lower in 2015 than in the previous year. In 2014, higher **income from the disposal of shareholdings** was reported, particularly €220 million from the disposal of the share in VNG – Verbundnetz Gas AG, Leipzig, Germany.

The interest result improved by €79 million compared with the previous year. This was primarily attributable to lower interest expenses as a result of more favorable refinancing conditions.

The **net interest expense from underfunded pension plans and similar obligations** increased compared with the previous year, mainly as a result of the higher defined benefit obligation as of December 31, 2014.

Compared with the previous year, **income from the capitalization of borrowing costs** slightly decreased as a

result of the startup of major investment projects, particularly the TDI complex in Ludwigshafen, Germany; the production complex for acrylic acid and superabsorbents in Camaçari, Brazil; the MDI plant in Chongqing, China; and oil and gas production facilities.

**Miscellaneous financial expenses** in 2015 predominantly included hedging costs from the hedging of loans in U.S. dollars. In addition to expenses for hedging loans in U.S. dollars, the previous year had included an expense of €42 million for the market valuation of options for the disposal of shares in Styrolution. Effective as of November 17, 2014, BASF sold its share in Styrolution to the INEOS Group.

## 11 Income taxes

In Germany, a uniform corporate income tax rate of 15.0% as well as a solidarity surcharge of 5.5% thereon is levied on all paid out and retained earnings. In addition to corporate income tax, income generated in Germany is subject to a trade tax that varies depending on the municipality in which the company is represented. Due to an increase in the rate of assessment for Ludwigshafen, Germany, the weighted average trade tax rate was 14.1% in 2015 (2014: 13.4%). As the increase had already

been enacted in the previous year, the 30% rate used to calculate deferred taxes for German Group companies remained unchanged in 2015. The profits of foreign Group companies are assessed using the tax rates applicable in their respective countries. These are also generally used to calculate deferred taxes to the extent that tax rate adjustments for the future have not yet been enacted.

## Tax expense

Million €	2015	2014
<b>Current tax expense</b>	<b>1,610</b>	<b>1,645</b>
Corporate income tax, solidarity surcharge and trade taxes (Germany)	514	528
Foreign income tax	1,231	1,244
Taxes for prior years	(135)	(127)
<b>Deferred tax expense (+) / income (-)</b>	<b>(363)</b>	<b>66</b>
From changes in temporary differences	(314)	66
From changes in tax loss carryforwards / unused tax credits	(59)	(41)
From changes in the tax rate	7	38
From valuation allowances on deferred tax assets	3	3
<b>Income taxes</b>	<b>1,247</b>	<b>1,711</b>
Other taxes as well as sales and consumption taxes	302	266
<b>Tax expense</b>	<b>1,549</b>	<b>1,977</b>

The BASF Group tax rate amounted to 22.5% in 2015 (2014: 23.8%). This lower rate was primarily attributable to lower contributions to income from countries with higher tax rates, especially Norway. Taxes for prior years primarily contained reversals of long-term tax provisions.

Changes in valuation allowances on deferred tax assets for tax loss carryforwards resulted in expenses of €4 million in 2015 and income of €3 million in 2014.

Other taxes included real estate taxes and other comparable taxes totaling €106 million in 2015 and €96 million in 2014.

## Reconciliation of the effective tax rate and the tax rate in Germany

	2015		2014	
	Million €	%	Million €	%
Income before taxes and minority interests	5,548	–	7,203	–
Expected tax based on German corporate income tax (15%)	832	15.0	1,080	15.0
Solidarity surcharge	11	0.2	11	0.2
German trade tax	234	4.2	217	3.0
Foreign tax-rate differential	225	4.1	920	12.8
Tax-exempt income	(103)	(1.9)	(354)	(4.9)
Nondeductible expenses	239	4.3	111	1.5
Income after taxes of companies accounted for using the equity method	(38)	(0.7)	(45)	(0.6)
Taxes for prior years	(135)	(2.4)	(127)	(1.8)
Deferred tax liabilities for the future reversal of temporary differences associated with shares in participating interests	(28)	(0.5)	(7)	(0.1)
Other	10	0.2	(95)	(1.3)
<b>Income taxes / effective tax rate</b>	<b>1,247</b>	<b>22.5</b>	<b>1,711</b>	<b>23.8</b>

Gains from the asset swap with Gazprom did not result in tax burdens. The previous year had included higher tax-exempt income in connection with the disposal of investments, especially of the shares in Styrolution and in VNG – Verbundnetz Gas AG, as well as the sale of oil and gas fields in the North Sea to the MOL Group.

Nondeductible expenses particularly included an impairment of the goodwill of the Exploration & Production business sector.

Future reversals of temporary differences for shares in investments that are assumed to have a planning horizon of one year led to deferred tax income of €28 million in 2015 (2014: €7 million).

## Deferred taxes

### Deferred tax assets and liabilities (in million €)

	Deferred tax assets		Deferred tax liabilities	
	2015	2014	2015	2014
Intangible assets	90	119	1,553	1,747
Property, plant and equipment	182	199	3,322	3,195
Financial assets	12	24	106	87
Inventories and accounts receivable	251	294	517	766
Provisions for pensions	2,410	2,687	472	487
Other provisions and liabilities	1,346	1,574	177	152
Tax loss carryforwards	271	388	–	–
Other	164	155	107	146
Netting	(2,873)	(3,160)	(2,873)	(3,160)
Valuation allowances for deferred tax assets	(62)	(87)	–	–
Thereof for tax loss carryforwards	(25)	(40)	–	–
<b>Total</b>	<b>1,791</b>	<b>2,193</b>	<b>3,381</b>	<b>3,420</b>
Thereof current	439	597	256	346

Deferred taxes result from temporary differences between tax balances and the measurement of assets and liabilities according to IFRS as well as from tax loss carryforwards and unused tax credits. The remeasurement of all the assets and liabilities associated with acquisitions according to IFRS 3 has resulted in significant deviations between fair values and the values in the tax accounts. This leads primarily to deferred tax liabilities.

Undistributed earnings of subsidiaries resulted in temporary differences of €9,241 million in 2015 (2014: €7,472 million) for which deferred tax liabilities were not recognized, as they are either not subject to taxation on payout or they are expected to be reinvested for indefinite periods of time.

### Tax loss carryforwards

The regional distribution of tax loss carryforwards is as follows:

### Tax loss carryforwards (in million €)

	Tax loss carryforwards		Deferred tax assets	
	2015	2014	2015	2014
Germany	1	1	–	–
Foreign	2,490	2,302	246	348
<b>Total</b>	<b>2,491</b>	<b>2,303</b>	<b>246</b>	<b>348</b>

Tax loss carryforwards exist in all regions, especially in Europe and Asia. German tax losses may be carried forward indefinitely. In foreign countries, tax loss carryforwards are in some cases only possible for a limited period of time. The bulk of the tax loss carryforwards will expire in Europe by 2018 and in Asia by 2020. No deferred tax assets were recognized for tax loss carryforwards of €1,767 million in 2015 (2014: €1,441 million).

### Tax obligations

Tax obligations primarily include assessed income taxes and other taxes as well as estimated income taxes not yet assessed for the current year. Tax obligations amounted to €1,082 million in 2015 (2014: €1,079 million).

## 12 Minority interests

Million €	2015	2014
Minority interests in profits	343	374
Minority interests in losses	(29)	(37)
<b>Total</b>	<b>314</b>	<b>337</b>

Lower **minority interests in profits** arose in 2015 mainly at BASF Total Petrochemicals LLC, Port Arthur, Texas, due to reduced prices. Higher minority interests in profits compared with the previous year were mainly reported at WINGAS GmbH, Kassel, Germany, as a result of greater

sales volumes and more favorable procurement conditions in the natural gas trading business.

**Minority interests in losses** in 2015 arose particularly at Shanghai BASF Polyurethane Company Ltd., Shanghai, China, due to margin pressure from declining sales prices. In the previous year, companies active in natural gas trading were the main contributors to minority interests in losses.

For more information on minority interests in consolidated companies, see Note 21 on page 199

## 13 Personnel expenses and employees

### Personnel expenses

Personnel expenses increased by 8.2%, from €9,224 million in 2014 to €9,982 million in 2015, largely owing to currency effects. The rise was also due in part to wage and salary increases as well as expenses for the anniversary bonus to employees and the long-term incentive (LTI) program.

#### Personnel expenses (in million €)

	2015	2014
Wages and salaries	7,943	7,380
Social security contributions and expenses for pensions and assistance	2,039	1,844
Thereof for pension benefits	658	560
<b>Personnel expenses</b>	<b>9,982</b>	<b>9,224</b>

### Number of employees

The number of employees was 112,435 on December 31, 2015 and 113,292 employees on December 31, 2014.

The average number of employees was distributed over the regions as follows:

#### Average number of employees

	2015	2014
Europe	70,922	71,128
Thereof Germany	52,987	52,726
North America	17,342	16,980
Asia Pacific	17,428	16,885
South America, Africa, Middle East	7,557	7,651
<b>BASF Group</b>	<b>113,249</b>	<b>112,644</b>
Thereof apprentices and trainees	2,942	2,884
temporary staff	2,574	2,596

Employees from joint operations are included in the average number of employees relative to BASF's share in the company. On average 398 employees worked for joint operations in 2015 (2014: 376 employees).

## 14 Intangible assets

The **goodwill** of BASF is allocated to 21 cash-generating units (2014: 23), which are defined either on the basis of business units or on a higher level.

Annual impairment testing took place in the fourth quarter of the year on the basis of the cash-generating units. Recoverable amounts were determined in each case using the value in use. This was done using plans approved by company management and their respective cash flows, generally for the next five years. For the time period after the fifth year, a terminal value was calculated using a forward projection from the last detailed planning year as a perpetual annuity. The planning is based on experience, current performance and management's best possible estimates on the future development of

individual parameters, such as raw material prices and profit margins. The oil price is also among the main input parameters that provide the basis for the forecast of cash inflows in the current financial plans. Market assumptions regarding, for example, economic development and market growth are included based on external macroeconomic sources as well as sources specific to the industry.

The weighted average cost of capital rate after tax required for impairment testing is determined using the Capital Asset Pricing Model. It comprises a risk-free rate, a market risk premium, and a spread for credit risk based on the respective industry-specific peer group. The calculation also takes into account capital structure and the beta factor of the respective

peer group as well as the average tax rate of each cash-generating unit. Impairment tests were conducted assuming a weighted average cost of capital rate after taxes between 6.04% and 7.67% (2014: between 6.60% and 7.76%). This represents a weighted average cost of capital rate before taxes between 7.77% and 10.81% (2014: between 8.19% and 10.30%). For the Exploration & Production business sector in the Oil & Gas segment, a cost of capital rate after taxes of 10.93% (2014: 9.46%) or before taxes of 16.66% (2014: 17.72%) was applied, taking country-specific risks into account.

In determining the value in use for the great majority of cash-generating units, BASF generally anticipates that a reasonably possible deviation from the key assumptions will not lead to the carrying amount of the units exceeding their respective recoverable amounts. For the goodwill of the Construction Chemicals division and the cash-generating units Pigments (in the Dispersions & Pigments division), Catalysts (excluding battery materials), and Exploration & Production (in the Oil & Gas segment), this is not the case.

In the 2015 business year, the recoverable amount of the Construction Chemicals unit exceeded the carrying amount by around €397 million. Earnings in the Construction Chemicals division are influenced by the growth of the construction industry. The weighted average cost of capital rate after taxes used for impairment testing was 7.67% (2014: 7.76%). The recoverable amount would equal the unit's carrying amount if the cost of capital rate increased by 0.96 percentage points (2014: by 0.5 percentage points) or if income from operations of the last detailed planning year – as the basis for the terminal value – were lower by 16.65% (2014: by 9.10%).

The weighted average cost of capital rate after taxes used for impairment testing for Pigments was 6.07% (2014: 6.64%). In 2015, the recoverable amount of this unit exceeded the carrying amount by €15 million, so that even slightly unfavor-

able changes in the assumptions would lead to an impairment. An increase of 0.5% in the cost of capital rate would result in impairments amounting to €163 million; a 10% decrease in income from operations of the last detailed planning year – used as the basis for the terminal value – would result in impairments of €143 million.

In 2015, the recoverable amount of Catalysts (excluding battery materials) exceeded the carrying amount by €708 million. The weighted average cost of capital rate after taxes used for the impairment testing of this unit was 7.66% (2014: 7.75%). The recoverable value of the unit would equal the carrying amount if the cost of capital rate increased by 0.73 percentage points or if income from operations of the last detailed planning year – as the basis for the terminal value – were 14.52% lower.

For impairment testing in the Exploration & Production business sector in the Oil & Gas segment, assumptions regarding expected price development were adjusted to reflect the current oil price development. BASF now assumes an average oil price of \$40 per barrel (Brent) in 2016, and expects this to rise again in subsequent years to over \$100 per barrel (Brent) in determining the terminal value. The revised assumptions resulted in an impairment of goodwill for Exploration & Production in the amount of €137 million. The recoverable amount corresponds to the value in use of the unit, amounting to €8,746 million as of December 31, 2015. A decrease of \$10 per barrel of Brent crude in the average oil price assumption would reduce income from operations by roughly €200 million each year. Such a reduction over the entire planning period would lead to an impairment of €1 billion in the Exploration & Production cash-generating unit. Irrespective of the price of oil, an increase in the cost of capital rate by 0.5% would lead to an additional impairment of €526 million. Impairments may be allocated to intangible assets, goodwill and property, plant and equipment depending on the nature, timing and size of changes in the individual parameters.

#### Goodwill of cash-generating units (in million €)

Cash-generating unit	2015		2014	
	Goodwill	Growth rate <sup>1</sup>	Goodwill	Growth rate <sup>1</sup>
Crop Protection division	2,048	2.0%	1,931	2.0%
Exploration & Production in the Oil & Gas segment	1,660	(2.0%)	1,765	(2.0%)
Catalysts division (excluding battery materials)	1,411	2.0%	1,360	2.0%
Construction Chemicals division	700	1.5%	675	1.5%
Personal care ingredients in the Care Chemicals division	537	2.0%	516	2.0%
Pigments in the Dispersions & Pigments division	484	2.0%	450	2.0%
Other cash-generating units	1,523	0.0–2.0%	1,444	0.0–2.0%
<b>Goodwill as of December 31</b>	<b>8,363</b>		<b>8,141</b>	

<sup>1</sup> Growth rates used in impairment tests to determine terminal values in accordance with IAS 36



## Development of intangible assets 2015 (in million €)

	Distribution, supply and similar rights	Product rights, licenses and trademarks	Know-how, patents and production technologies	Internally generated intangible assets	Other rights and values <sup>1</sup>	Goodwill	Total
<b>Cost</b>							
Balance as of January 1, 2015	4,014	1,410	2,000	86	674	8,141	16,325
Changes in scope of consolidation	5	–	(53)	–	(1)	–	(49)
Additions	–	56	23	11	45	–	135
Additions from acquisitions	47	–	38	–	32	19	136
Disposals	(94)	(43)	(137)	(7)	(147)	(149)	(577)
Transfers	(2)	(167)	34	1	(170)	(24)	(328)
Exchange differences	93	62	46	–	17	513	731
Balance as of December 31, 2015	4,063	1,318	1,951	91	450	8,500	16,373
<b>Accumulated amortization</b>							
Balance as of January 1, 2015	1,879	379	809	59	232	–	3,358
Changes in scope of consolidation	3	–	(38)	–	(1)	–	(36)
Additions	302	71	193	14	84	137	801
Disposals	(92)	(43)	(125)	(6)	(123)	–	(389)
Transfers	–	(1)	8	–	(7)	–	–
Exchange differences	68	5	18	–	11	–	102
Balance as of December 31, 2015	2,160	411	865	67	196	137	3,836
<b>Net carrying amount as of December 31, 2015</b>	<b>1,903</b>	<b>907</b>	<b>1,086</b>	<b>24</b>	<b>254</b>	<b>8,363</b>	<b>12,537</b>

<sup>1</sup> Including licenses to such rights and values

Besides goodwill, **intangible assets** also include acquired intangible assets as well as internally generated intangible assets. In addition, they include rights belonging to the Oil & Gas segment, which are amortized in accordance with the unit of production method. As of December 31, 2015, their acquisition costs amounted to €835 million and accumulated amortization to €246 million; amortization in 2015 amounted to €41 million.

Additions from acquisitions amounted to €136 million in 2015. Significant acquisitions concerned the purchase of a 66% share in a company to which TODA KOGYO CORP., Hiroshima, Japan, contributed its business, and the purchase of the polyurethane (PU) business from Polioles, S.A. de C.V., Lerma, Mexico. In connection with these transactions, additions to intangible assets amounted to €87 million. Moreover, BASF concluded an agreement with Lanxess on the acquisition and use of technologies and patents for the production of high-molecular-weight polyisobutene (HM PIB), which added €23 million to intangible assets.

Concessions for oil and gas production under the category **product rights, licenses and trademarks** with a net carrying amount of €480 million in 2015 authorize the exploration and production of oil and gas in certain areas. At the end of the term of a concession, the rights are returned. Aside from transfers to property, plant and equipment, transfers in 2015 included €54 million from the subsequent adjustments of the purchase price allocation for the acquisition of assets from Statoil.

**Other rights and values** under transfers also included derecognitions of €153 million resulting from the change in accounting to the net method for emission right certificates granted free of charge in 2015. Disposals of €17 million were attributable to the asset swap with Gazprom.

Related to this, **goodwill** of €173 million was derecognized, €32 million of which was reported under transfers.

In 2015, additions to **accumulated amortization** included impairments of €205 million. These primarily concerned the Oil & Gas segment. The revised assumptions for oil and gas prices led to €137 million in goodwill impairments as well as €27 million in impairments on a license in Norway. Furthermore, under the category know-how, patents and production technologies, a once-advantageous supply contract of €36 million in the Functional Materials & Solutions segment was fully impaired due to lower market prices.

In 2015, additions to accumulated amortization included write-ups of €2 million.

**Development of intangible assets 2014** (in million €)

	Distribution, supply and similar rights	Product rights, licenses and trademarks	Know-how, patents and production technologies	Internally generated intangible assets	Other rights and values <sup>1</sup>	Goodwill	Total
<b>Cost</b>							
Balance as of January 1, 2014	4,201	1,366	1,984	77	856	6,936	15,420
Changes in scope of consolidation	–	–	15	–	–	–	15
Additions	1	29	38	12	104	–	184
Additions from acquisitions	–	109	–	–	–	623	732
Disposals	(73)	(153)	(82)	(4)	(128)	(28)	(468)
Transfers	247	1	(12)	–	(192)	–	44
Exchange differences	(362)	58	57	1	34	610	398
Balance as of December 31, 2014	4,014	1,410	2,000	86	674	8,141	16,325
<b>Accumulated amortization</b>							
Balance as of January 1, 2014	1,664	429	695	43	265	–	3,096
Changes in scope of consolidation	–	–	15	–	–	–	15
Additions	338	55	158	20	76	–	647
Disposals	(73)	(109)	(82)	(4)	(106)	–	(374)
Transfers	15	–	–	–	(20)	–	(5)
Exchange differences	(65)	4	23	–	17	–	(21)
Balance as of December 31, 2014	1,879	379	809	59	232	–	3,358
<b>Net carrying amount as of December 31, 2014</b>	<b>2,135</b>	<b>1,031</b>	<b>1,191</b>	<b>27</b>	<b>442</b>	<b>8,141</b>	<b>12,967</b>

<sup>1</sup> Including licenses to such rights and values

Besides goodwill, **intangible assets** also include acquired intangible assets as well as internally generated intangible assets. In addition, they include rights belonging to the Oil & Gas segment, which are amortized in accordance with the unit of production method. As of December 31, 2014, their acquisition costs amounted to €916 million and accumulated amortization to €235 million; amortization in 2014 amounted to €52 million.

In connection with the acquisition of assets from Statoil, Stavanger, Norway, €704 million was added to intangible assets in 2014. Of this amount, €121 million pertained to exploration rights and licenses and €583 million to goodwill.

Concessions for oil and gas production under the category **product rights, licenses and trademarks** with a net carrying amount of €579 million in 2014 authorize the exploration and production of oil and gas in certain areas. Some of these rights entail obligations to deliver a portion of the production output to local companies. At the end of the term of a concession, the rights are returned.

In **other rights and values**, the line item transfers includes additions and fair value adjustments of emission rights recognized directly in equity as of the balance sheet date.

Disposals were largely attributable to the sale of selected oil and gas investments in the North Sea to the Hungarian MOL Group.

Impairments of €56 million were recognized in 2014. Due to the weak development of the coal mining business in China, impairments of €40 million relating to distribution, supply and similar rights were recognized in the Construction Chemicals division. The recoverable amount equals the value in use, amounting to €10 million. The value in use was determined using a weighted average cost of capital rate before taxes of 11.02%.

In 2014, transfers included a write-up of €5 million.

## 15 Property, plant and equipment

**Machinery and technical equipment** included oil and gas deposits, such as related wells, production facilities and further infrastructure, which were depreciated according to the unit of production method.

### Development of property, plant and equipment 2015 (in million €)

	Land, land rights and buildings	Machinery and technical equipment	Thereof depreciation according to the unit of production method	Miscellaneous equipment and fixtures	Construction in progress	Total
<b>Cost</b>						
Balance as of January 1, 2015	9,635	43,410	5,729	3,688	7,681	64,414
Changes in scope of consolidation	(32)	(12)	–	–	4	(40)
Additions	396	1,474	492	226	3,555	5,651
Additions from acquisitions	25	46	–	1	19	91
Disposals	(263)	(2,974)	(977)	(184)	(606)	(4,027)
Transfers	734	2,529	483	391	(4,518)	(864)
Exchange differences	216	1,332	245	94	367	2,009
Balance as of December 31, 2015	10,711	45,805	5,972	4,216	6,502	67,234
<b>Accumulated depreciation</b>						
Balance as of January 1, 2015	5,391	32,463	3,203	2,774	290	40,918
Changes in scope of consolidation	(36)	(19)	–	–	–	(55)
Additions	329	2,707	959	303	261	3,600
Disposals	(156)	(2,250)	(866)	(165)	(348)	(2,919)
Transfers	7	(935)	(595)	176	19	(733)
Exchange differences	102	999	126	64	(2)	1,163
Balance as of December 31, 2015	5,637	32,965	2,827	3,152	220	41,974
<b>Net carrying amount as of December 31, 2015</b>	<b>5,074</b>	<b>12,840</b>	<b>3,145</b>	<b>1,064</b>	<b>6,282</b>	<b>25,260</b>

**Additions** to property, plant and equipment arising from investment projects amounted to €5,651 million in 2015. Significant investments were primarily related to the construction of a TDI complex in Ludwigshafen, Germany; a production complex for acrylic acid and superabsorbents in Camaçari, Brazil; and an MDI plant in Chongqing, China. Each of these began operations either fully or partly in 2015. Further significant investments included the construction of an integrated aroma ingredients complex in Kuantan, Malaysia, and oil and gas production facilities and wells in Europe and South America. Investments for expansion purposes were particularly made at the sites in Ludwigshafen, Germany; Freeport, Texas; Geismar, Louisiana; and Antwerp, Belgium. Government grants of €10 million related to tangible assets were deducted. Due to acquisitions, property, plant and equipment rose by €91 million primarily from the acquisition of BASF TODA Battery Materials LLC, Tokyo, Japan.

In 2015, **impairments** of €485 million were included in accumulated depreciation. Of this amount, €336 million pertained to impairments on oil and gas fields in Norway, Libya and Germany in the Oil & Gas segment. These impairments arose particularly from the ongoing low oil and gas price level and the resulting revision of planning assumptions. These fields were written down to their recoverable amount, totaling

€1,338 million. The weighted average cost of capital rate before taxes used ranged between 9.13% and 88.83%. The high cost of capital rates were due to the special income tax for the oil and gas industry in Norway. The recoverable amount for impaired property, plant and equipment equals their value in use. In 2015, additions to accumulated depreciation contained write-ups of €5 million.

For more information on oil price sensitivity and property, plant and equipment, see Note 14 from page 189 onward

**Disposals** of property, plant and equipment were primarily attributable to the asset swap with Gazprom and related primarily to the transferred natural gas trading and storage business. Furthermore, BASF's share in Wintershall Noordzee B.V., Rijswijk, Netherlands, was reduced to 50%. With this loss of control, the company was reclassified as an investment accounted for using the equity method. 50% of the property, plant and equipment was reported in disposals and the remaining 50% in transfers.

**Exchange differences** arose particularly from the appreciation of the U.S. dollar relative to the euro.

**Development of property, plant and equipment 2014** (in million €)

	Land, land rights and buildings	Machinery and technical equipment	Thereof depreciation according to the unit of production method	Miscellaneous equipment and fixtures	Construction in progress	Total
<b>Cost</b>						
Balance as of January 1, 2014	8,735	39,697	4,664	3,295	5,463	57,190
Changes in scope of consolidation	1	11	–	3	–	15
Additions	355	1,280	771	240	3,493	5,368
Additions from acquisitions	–	424	–	–	577	1,001
Disposals	(109)	(1,063)	(19)	(141)	(173)	(1,486)
Transfers	320	1,517	180	176	(2,003)	10
Exchange differences	333	1,544	133	115	324	2,316
Balance as of December 31, 2014	9,635	43,410	5,729	3,688	7,681	64,414
<b>Accumulated depreciation</b>						
Balance as of January 1, 2014	5,091	30,112	2,595	2,558	200	37,961
Changes in scope of consolidation	2	8	–	2	–	12
Additions	261	2,176	528	229	104	2,770
Disposals	(93)	(939)	(19)	(136)	(22)	(1,190)
Transfers	–	(38)	–	42	4	8
Exchange differences	130	1,144	99	79	4	1,357
Balance as of December 31, 2014	5,391	32,463	3,203	2,774	290	40,918
<b>Net carrying amount as of December 31, 2014</b>	<b>4,244</b>	<b>10,947</b>	<b>2,526</b>	<b>914</b>	<b>7,391</b>	<b>23,496</b>

**Additions** to property, plant and equipment from investment projects in 2014 amounted to €5,368 million. Significant investments particularly concerned the construction of a TDI complex in Ludwigshafen, Germany; a production complex for acrylic acid and superabsorbents in Camaçari, Brazil; an MDI plant in Chongqing, China; and oil and gas production facilities and wells in Europe and South America. Investments for expansion purposes were particularly made at the sites in Ludwigshafen, Germany; Antwerp, Belgium; Geismar, Louisiana; and Freeport, Texas. Property, plant and equipment rose by €1,001 million primarily from the acquisition of assets from Statoil, Stavanger, Norway.

In 2014, the **impairments** of €298 million recognized under accumulated depreciation primarily concerned the Oil & Gas segment. They resulted mainly from the complete write-down of property, plant and equipment from projects for the development of a gas field in Qatar in the amount of €81 million as well as an oilfield in the United Kingdom in the amount of

€44 million. Furthermore, impairments of €94 million were recognized on oil and gas fields in Norway and Germany. The oil and gas fields were written down to their recoverable amount of €554 million. The recoverable amounts for the individual oil and gas fields were calculated using a weighted average cost of capital rate before taxes ranging between 8.46% and 73.56%. The high cost of capital rates were due to the special income tax for the oil and gas industry in Norway. A plant in the Chemicals segment was written down to its recoverable amount of €31 million, requiring the recognition of an impairment in the amount of €27 million. The weighted average cost of capital rate before taxes used was 9.38%. The recoverable amount for impairments was determined on the basis of value in use.

**Disposals** of property, plant and equipment were largely attributable to the sale of selected oil and gas investments in the North Sea to the Hungarian MOL Group.

In 2014, **transfers** included a write-up of €3 million.

## 16 Investments accounted for using the equity method and other financial assets

### Investments accounted for using the equity method (in million €)

	2015	2014
Balance as of January 1	3,245	4,174
Changes in scope of consolidation	–	16
Additions	847	40
Disposals	(107)	(781)
Transfers	398	(117)
Exchange differences	53	(87)
<b>Net carrying amount as of December 31</b>	<b>4,436</b>	<b>3,245</b>

### Other financial assets (in million €)

	December 31, 2015	December 31, 2014
Other shareholdings	420	462
Long-term securities	106	78
<b>Other financial assets</b>	<b>526</b>	<b>540</b>

**Additions** of €847 million to investments accounted for using the equity method were primarily due to the asset swap with Gazprom. As a result, the closed joint stock company Achim Trading in Moscow, Russia, and the limited liability company Achim Development in Novy Urengoy, Russia, were accounted for using the equity method for the first time.

**Disposals** totaling €107 million were primarily attributable to the sale of BASF's 25% share in SolVin to its partner Solvay, effective July 1, 2015. In the previous year, the sale of BASF's share in Styrolution Holding GmbH to the INEOS Group had been primarily responsible for disposals of €781 million.

**Transfers** include €407 million from the first-time use of the equity method to account for Wintershall Noordzee B.V., Rijswijk, Netherlands. As a result of the disposal of its 50% share in Wintershall Noordzee B.V. to Gazprom, BASF no longer exercises control over this company alone but rather shares control with Gazprom. Wintershall Noordzee B.V. must now therefore be accounted for using the equity method in the Consolidated Financial Statements. Due to ongoing low prices

for oil and gas and the resulting revision of planning assumptions, the share in Wintershall Noordzee B.V. was impaired by €109 million. This amount is also reflected in transfers. The recoverable amount of €291 million corresponds to the value in use of the company, and was determined using the after-tax cash flows from the oil and gas fields in which the company has interests. They were discounted using a cost of capital rate after taxes of 7.8%. In 2014, transfers had included impairments of €25 million. Transfers additionally contains income and dividend distributions from companies accounted for using the equity method.

For a detailed overview of income from companies accounted for using the equity method, see Note 9 on page 185

The change in **other shareholdings** resulted from additions of €24 million and disposals of €57 million. Impairments amounted to €47 million. Other shareholdings increased by €26 million as a result of reclassifications and transfers. Currency effects amounted to €12 million.

## 17 Inventories

Million €	December 31, 2015	December 31, 2014
Raw materials and factory supplies	2,944	2,814
Work-in-process, finished goods and merchandise	6,680	8,358
Advance payments and services-in-process	69	94
<b>Inventories</b>	<b>9,693</b>	<b>11,266</b>

**Work-in-process, finished goods and merchandise** are combined into one item due to the production conditions in the chemical industry. Services-in-process primarily relate to services not invoiced as of the balance sheet date.

Cost of sales included inventories recognized as an expense amounting to €38,199 million in 2015, and €43,841 million in 2014.

A write-up of inventory was recognized in the amount of €22 million in 2015 and in the amount of €2 million in 2014.

Of total **inventories**, €770 million was measured at net realizable value in 2015 and €1,320 million in 2014.

## 18 Receivables and miscellaneous assets

### Other receivables and miscellaneous assets (in million €)

	December 31, 2015		December 31, 2014	
	Noncurrent	Current	Noncurrent	Current
Loans and interest receivables	811	194	855	173
Derivatives with positive fair values	384	474	177	656
Receivables from finance leases	33	8	39	4
Insurance compensation receivables	–	16	–	10
Other	130	357	88	839
<b>Other receivables and assets which qualify as financial instruments</b>	<b>1,358</b>	<b>1,049</b>	<b>1,159</b>	<b>1,682</b>
Prepaid expenses	61	176	49	238
Defined benefit assets	133	–	91	–
Tax refund claims	102	875	62	831
Employee receivables	–	21	11	29
Precious metal trading items	–	663	–	933
Other	66	311	126	319
<b>Other receivables and assets which do not qualify as financial instruments</b>	<b>362</b>	<b>2,046</b>	<b>339</b>	<b>2,350</b>
<b>Other receivables and assets</b>	<b>1,720</b>	<b>3,095</b>	<b>1,498</b>	<b>4,032</b>

Noncurrent **loans and interest receivables** in 2015 predominantly included loans granted by WIGA Transport Beteiligungs-GmbH & Co. KG, Kassel, Germany, to NEL Gastransport GmbH, Kassel, Germany, and GASCADE Gastransport GmbH, Kassel, Germany, in the amount of €398 million to finance the pipeline network, as well as loans granted by BASF Belgium Coordination Center Comm. V., Antwerp, Belgium, in the amount of €216 million mainly to finance the business expansion of Asian companies. This item also included receivables in favor of BASF SE from the BASF Pensionskasse arising from an agreement regarding the granting of profit participation capital in the amount of €80 million.

The increase in noncurrent **derivatives with positive fair values** was largely attributable to the increase in interest rate and currency swaps. The decrease in current derivatives with positive fair values was mainly due to the disposal of WINGAS GmbH, Kassel, Germany. In connection with this, derivatives with positive fair values amounting to €158 million were derecognized. This was partially offset by increasing fair values of precious metal derivatives.

**Prepaid expenses** in 2015 included prepayments of €41 million related to operating activities compared with €58 million in 2014, as well as €36 million in prepayments for license costs in 2015 compared with €29 million in 2014. At €30 million, prepayments for insurance in 2015 remained at the prior-year level.

The increase in other receivables from **tax refund claims** was largely due to higher income tax receivables as a result of prepayments.

**Precious metal trading items** primarily comprise physical items and precious metal accounts as well as long positions in precious metals, which are largely hedged through sales or derivatives. In comparison with the previous year, there was a decline particularly relating to the physical items.

**Other receivables and assets which qualify as financial instruments** include financial receivables, such as receivables from the sale of assets. The decrease in 2015 was primarily attributable to the settlement of the receivable in the amount of €200 million arising from the sale of Styrolution Holding GmbH.



**Valuation allowances for receivables 2015** (in million €)

	Balance as of January 1, 2015	Additions recognized in income	Reversals recognized in income	Additions not recognized in income	Reversals not recognized in income	Balance as of December 31, 2015
Accounts receivable, trade	337	80	41	33	111	298
Other receivables	108	18	–	19	70	75
<b>Total</b>	<b>445</b>	<b>98</b>	<b>41</b>	<b>52</b>	<b>181</b>	<b>373</b>

**Valuation allowances for receivables 2014** (in million €)

	Balance as of January 1, 2014	Additions recognized in income	Reversals recognized in income	Additions not recognized in income	Reversals not recognized in income	Balance as of December 31, 2014
Accounts receivable, trade	326	86	47	24	52	337
Other receivables	101	1	1	25	18	108
<b>Total</b>	<b>427</b>	<b>87</b>	<b>48</b>	<b>49</b>	<b>70</b>	<b>445</b>

The changes recognized in income contained individual valuation allowances, group-wise individual valuation allowances and valuation allowances due to transfer risks.

The changes not recognized in income were primarily related to changes in the scope of consolidation, translation adjustments and derecognition of uncollectible receivables.

Even in the current economic environment, BASF has not observed any material changes in the credit quality of its receivables. In 2015, individual valuation allowances of €57 million were recognized for **accounts receivable, trade**, and valuation allowances of €17 million were reversed. In 2014, individual valuation allowances of €65 million were recognized for trade accounts receivable and valuation allowances of €23 million were reversed.

At BASF, a new comprehensive, global credit insurance program covers trade accounts receivable incurred since January 1, 2015. As part of a global excess of loss policy, an essential part of future bad debts of the BASF Group are insured. There were no compensation claims in 2015.

In 2015, individual valuation allowances of €18 million were recognized for **other receivables**. In 2014, individual valuation allowances of €1 million were recognized for other receivables and €1 million were reversed.

The recognition and reversal of individual valuation allowances for trade accounts receivable and other receivables are recognized in the income statement.

**Aging analysis of accounts receivable, trade** (in million €)

	December 31, 2015		December 31, 2014	
	Gross value	Valuation allowances	Gross value	Valuation allowances
Not yet due	8,822	22	9,465	29
Past due less than 30 days	435	3	697	4
Past due between 30 and 89 days	135	8	136	3
Past due more than 90 days	422	265	424	301
<b>Total</b>	<b>9,814</b>	<b>298</b>	<b>10,722</b>	<b>337</b>

As of December 31, 2015, there were no material other receivables classified as financial instruments that were overdue and for which no valuation allowance was made.

## 19 Capital, reserves and retained earnings

### Authorized capital

At the Annual Shareholders' Meeting on May 2, 2014, shareholders authorized the Board of Executive Directors, with the approval of the Supervisory Board, to increase the subscribed capital by issuing new registered shares up to a total of €500 million against cash or contributions in kind through May 1, 2019. The Board of Executive Directors is empowered, following the approval of the Supervisory Board, to decide on the exclusion of shareholders' subscription rights for these new shares in certain predefined cases covered by the enabling resolution. Until now, this option has not been exercised and no new shares have been issued.

BASF SE has only issued fully paid-up registered shares with no par value. There are no preferences or other restrictions. BASF SE does not hold any treasury shares.

### Reserves and retained earnings

Capital surplus includes effects from BASF's share program, premiums from capital increases and consideration for warrants and negative goodwill from the capital consolidation resulting from acquisitions of subsidiaries in exchange for the issue of BASF SE shares at par value.

Million €	Dec. 31, 2015	Dec. 31, 2014
Legal reserves	594	534
Other retained earnings	29,526	28,243
<b>Retained earnings</b>	<b>30,120</b>	<b>28,777</b>

Transfers from **other retained earnings** increased **legal reserves** by €60 million in 2015 (2014: €46 million).

Due to the disposal of the 25% share in SolVin to partner Solvay, of parts of the pharmaceutical ingredient business to Siegfried Holding AG, Zofingen, Switzerland, and the asset swap with Gazprom, an amount of €68 million resulting from the remeasurement of defined benefit plans was transferred from other comprehensive income into retained earnings.

The acquisition of shares in companies which BASF already controls or includes as a joint arrangement in the Consolidated Financial Statements is treated as a transaction between shareholders, as long as this does not lead to a change in the consolidation method. There were no transactions of this type in 2015, as in the previous year.

### Payment of dividends

In accordance with the resolution of the Annual Shareholders' Meeting on April 30, 2015, BASF SE paid a dividend of €2.80 per share from the retained profit of the 2014 fiscal year. With 918,478,694 shares entitled to dividends, this amounts to a total dividend payout of €2,571,740,343.20.

## 20 Other comprehensive income

### Translation adjustments

The strong decline in the value of the euro relative to the U.S. dollar in the 2015 business year was the main factor leading to an increase of €911 million in the translation adjustment to €652 million.

### Cash flow hedges

The significant decline in the hedging of future cash flows in 2015 was primarily a result of the disposal of the negative fair values of commodity derivatives at WINGAS GmbH, Kassel, Germany, in connection with the asset swap with Gazprom.

Hedging future cash flows at Nord Stream AG, Zug, Switzerland, a company accounted for using the equity method, resulted in a change of €16 million in 2015 and of minus €29 million in 2014.

For more information on cash flow hedge accounting, see Note 27.4 on page 215

### Remeasurement of defined benefit plans

Due to the disposal of the 25% share in SolVin to partner Solvay, parts of the pharmaceutical ingredients and services business to Siegfried Holding AG, Zofingen, Switzerland, and the asset swap with Gazprom, an amount of €68 million resulting from the remeasurement of defined benefit plans was reclassified from other comprehensive income into retained earnings.

For more information on the remeasurement of defined benefit plans, see Note 22 on page 199

## 21 Minority interests

Group company	Partner	December 31, 2015		December 31, 2014	
		Equity stake		Equity stake	
		%	Million €	%	Million €
W & G Beteiligungs-GmbH & Co. KG, WINGAS GmbH, WINGAS Holding GmbH, WINGAS UK Limited	Gazprom Group, Moscow, Russia	–	–	49.98	114
WIGA Transport Beteiligungs-GmbH & Co. KG, W & G Transport Holding GmbH <sup>1</sup> , OPAL Gastransport GmbH & Co. KG <sup>1</sup>	Gazprom Germania GmbH, Berlin, Germany	49.98 <sup>1</sup>	(128)	49.98	(157)
BASF India Ltd., Mumbai, India	Free float	26.67	35	26.67	36
BASF PETRONAS Chemicals Sdn. Bhd., Shah Alam, Malaysia	Petroleum Nasional Bhd., Kuala Lumpur, Malaysia	40.00	221	40.00	149
BASF TOTAL Petrochemicals LLC, Port Arthur, Texas	Total Petrochemicals Inc., Houston, Texas	40.00	249	40.00	237
Shanghai BASF Polyurethane Company Ltd., Shanghai, China	Shanghai Hua Yi (Group) Company, Shanghai, China, and Sinopec Shanghai GaoQiao Petrochemical Corporation, Shanghai, China	30.00	62	30.00	71
BASF TODA Battery Materials, LLC, Tokyo, Japan	TODA KOGYO CORP., Hiroshima, Japan	34.00	39	–	–
BASF Shanghai Coatings Co. Ltd., Shanghai, China	Shanghai HuaYi Fine Chemical Co., Ltd, Shanghai, China	40.00	49	40.00	35
Other			102		96
<b>Total</b>			<b>629</b>		<b>581</b>

<sup>1</sup> Equity stake in W & G Transportation Holding GmbH and OPAL Gastransport GmbH & Co. KG: 50.03%; voting rights and portion of earnings: 49.98%

The minority interests in W & G Beteiligungs-GmbH & Co. KG, Kassel, Germany; WINGAS GmbH, Kassel, Germany; WINGAS Holding GmbH, Kassel, Germany; and WINGAS UK

Limited, Richmond, England, were eliminated due to the asset swap with Gazprom on September 30, 2015.

## 22 Provisions for pensions and similar obligations

In addition to state pension plans, most employees are granted company pension benefits from either defined contribution or defined benefit plans. Benefits generally depend on years of service, contributions or compensation, and take into consideration the legal framework of labor, tax and social security laws of the countries where the companies are located. To limit the risks of changing financial market conditions as well as demographic developments, employees have been almost exclusively offered defined contribution plans for future years of service in recent years.

The Group Pension Committee monitors the risks of all pension plans of the Group. In this connection, it issues guidelines regarding the governance and risk management of pension plans, particularly with regard to the funding of the pension plans and the portfolio structure of the existing plan assets. The organization, responsibilities, strategy, implementation and reporting requirements are documented for the units involved.

### Economic and legal environment of the plans

In some countries – especially in Germany, the United Kingdom, Switzerland and Belgium – there are pension obligations subject to government supervision or similar legal restrictions. For example, there are minimum funding requirements

to cover pension obligations, which are based on actuarial assumptions that may differ from those in IAS 19. Furthermore, there are restrictions in qualitative and quantitative terms relating to parts of the plan assets for the investment in certain asset categories. This could result in fluctuating employer contributions, financing requirements and the assumption of obligations in favor of the pension funds to comply with the regulatory requirements.

The obligations and the plan assets used to fund the obligations are exposed to demographic, legal and economic risks. Economic risks are primarily due to unforeseen developments on commodity and capital markets. They affect, for example, pension adjustments based on the level of inflation in Germany and in the United Kingdom, as well as the impact of the discount rate on the amount of the defined benefit obligation. In previous years, measures taken to close plans with defined benefits for future service, especially benefits based on final pay promises and the assumption of healthcare costs for former employees, however, led to a reduction in risk with regard to future benefit levels.

The strategy of the BASF Group with regard to financing pension commitments is aligned with country-specific supervisory and tax regulations.

### Description of the defined benefit plans

#### Germany

For BASF SE and German Group companies, a basic level of benefits is provided by BASF Pensionskasse VVaG, a legally independent funded plan, which is financed by contributions of employees and the employer as well as the return on plan assets. BASF SE ensures the necessary contributions to adequately finance the benefits promised by BASF Pensionskasse VVaG. Some of the benefits financed via the BASF Pensionskasse VVaG are subject to adjustments that must be borne by its member companies to the extent that these cannot be borne by BASF Pensionskasse VVaG due to the regulations imposed by the German supervisory authority. In 2004, the basic benefits plan at BASF was closed for new employees at German BASF companies and replaced by a defined contribution plan. At BASF SE, occupational pension promises that exceed the basic level of benefits are financed under a contractual trust arrangement by BASF Pensionstreuhand e.V.; at German Group companies, these benefits are almost exclusively financed via pension provisions. The benefits are largely based on cash balance plans. Furthermore, employees are given the option of participating in various deferred compensation schemes.

#### United States

Employees are granted benefits based on defined contribution plans.

The existing defined benefit plans were closed to further increases in benefits based on future years of service, and benefits earned in the past have been frozen. There is no entitlement to pension adjustments to compensate for cost-of-living increases.

The legal and regulatory frameworks governing the plans are based on the U.S. Employee Retirement Income Security Act (ERISA), which requires the plan sponsor to ensure a minimum funding level. Any employer contributions necessary to meet the minimum funding level would be based on the results of an actuarial valuation. Furthermore, there are unfunded pension plans that are not subject to ERISA.

Additional similar obligations arise from plans which assume the healthcare costs and life insurance premiums of retired employees and their dependents. Such plans are closed to new entrants since 2007. In addition, the amount of the benefits for such plans is frozen.

#### Switzerland

The employees of the BASF Group in Switzerland receive a company pension, which is financed through a pension fund by employer and employee contributions as well as the return on assets. The pension plan is accounted for as a defined benefit plan, as the obligatory minimum pension guaranteed by law according to the Swiss law "Berufliche Vorsorge (BVG)" is included in the scheme. All benefits vest immediately. According to government regulations, the employer is obligated to make contributions, so that the pension fund is able to grant minimum benefits guaranteed by law. The pension fund is managed by a board, where employer and employees are equally represented, that steers and monitors the benefit plan and assets.

#### United Kingdom

Employees are granted benefits based on a defined contribution plan.

A part of the workforce received benefit increases depending on service period in connection with a career average plan until December 31, 2015. The BASF Group maintains defined benefit plans in the United Kingdom, which were closed for further increases in benefit from future years of service. Adjustments to compensate for increases in the cost of living until the beginning of retirement are legally required for beneficiaries of defined benefit plans.

The financing of the pension plans is determined by the provisions of the regulatory authority for pensions and the relevant social and labor law requirements. The defined benefit plans are administered by a trust company, whose Board of Trustees, according to the trustee agreement and law, represents the interests of the beneficiaries and ensures that the benefits can be paid in the future. The required funding is determined using technical valuations according to local regulations every three years.

#### Other countries

In the case of subsidiaries in other countries, defined benefits are covered in some cases by pension provisions, but mainly by external insurance companies or pension funds.

## Actuarial assumptions

The valuation of the defined benefit obligation is largely based on the following assumptions:

### Assumptions used to determine the defined benefit obligation as of December 31

	Germany		United States		Switzerland		United Kingdom	
	2015	2014	2015	2014	2015	2014	2015	2014
Discount rate	2.50	2.40	4.20	3.90	0.80	1.00	4.00	3.70
Projected pension increase	1.50	1.75	–	–	–	–	2.90	2.90

### Assumptions used to determine expenses for pension benefits in each business year

	Germany		United States		Switzerland		United Kingdom	
	2015	2014	2015	2014	2015	2014	2015	2014
Discount rate	2.40	3.90	3.90	4.80	1.00	2.40	3.70	4.40
Projected pension increase	1.75	2.00	–	–	–	–	2.90	3.10

The assumptions used to ascertain the defined benefit obligation as of December 31 are used in the following year to determine the expenses for pension plans.

A Group-wide, uniform procedure is used to determine the discount rates used for the valuation of material pension obligations of the BASF Group. Accordingly, the discount rates were derived from the yields on corporate bonds in the respective currency zones with an issuing volume of more than 100 million units of the respective currency with a minimum rating of AA– up to AA+ from one of the three rating agencies: Fitch, Moody's, or Standard & Poor's.

The valuation of the defined benefit obligation is generally made using the most recent actuarial mortality tables as of December 31 of the respective financial year, which in Germany and the United States are derived from the BASF Group population and were last updated for the pension obligations in Germany in 2015 and for the pension obligations in the United States in 2014.

### Actuarial mortality tables (significant countries) as of Dec. 31, 2015

Germany	Heubeck Richttafeln 2005G (modified)
United States	RP-2014 (modified) with MP-2014 generational projection
Switzerland	BVG 2010 generation
United Kingdom	S1PxA (standard actuarial mortality tables for self-administered plans [SAPS])

## Sensitivity analysis

A change in the material actuarial assumptions would have the following effects on the defined benefit obligation:

### Sensitivity of the defined benefit obligation as of December 31 (in million €)

	Increase by 0.5 percentage points		Decrease by 0.5 percentage points	
	2015	2014	2015	2014
Discount rate	(1,750)	(1,850)	2,000	2,100
Projected pension increase	1,120	1,240	(930)	(1,070)

An alternative valuation of the defined benefit obligation was conducted in order to determine how changes in the underlying assumptions would influence the amount of the defined benefit obligation. A linear extrapolation of these

amounts based on alternative changes in the assumptions as well as an addition of combined changes in the individual assumptions is not possible.

## Explanation of the amounts in the statement of income and balance sheet

### Composition of expenses for pension benefits (in million €)

	2015	2014
Expenses for defined benefit plans	385	286
Expenses for defined contribution plans	273	274
<b>Expenses for pension benefits (recognized in income from operations)</b>	<b>658</b>	<b>560</b>
Net interest expenses from underfunded pension plans and similar obligations	196	149
Net interest income from overfunded pension plans	(3)	(2)
Interest cost for the asset ceiling	–	2
<b>Expenses for pension benefits (recognized in the financial result)</b>	<b>193</b>	<b>149</b>

**Expenses for defined benefit plans** increased significantly in comparison with the previous year, as the decline in the discount rate in the course of 2014 led to an increase in the **current service cost** in 2015.

The net interest on the defined benefit liability is recognized in the financial result. This results from the difference between the interest cost of the defined benefit obligation and the standardized return on plan assets as well as the interest cost for the asset ceiling. The expected contribution payments and

benefits paid over the course of the financial year are considered in the determination of net interest.

Net interest expense of the respective financial year is based on the discount rate and the defined benefit obligation at the beginning of the year. The **net interest expense from underfunded pensions and similar obligations** increased compared with the previous year, mainly as a result of the higher defined benefit obligation as of December 31, 2014.

### Development of defined benefit obligation (in million €)

	2015	2014
Defined benefit obligation as of January 1	25,474	20,784
Current service cost	397	301
Interest cost	680	806
Benefits paid	(1,006)	(959)
Participants' contributions	53	54
Actuarial gains/losses		
for adjustments relating to financial assumptions	(868)	4,095
adjustments relating to demographic assumptions	(135)	118
experience adjustments	(103)	38
Effects from acquisitions and divestitures	(313)	–
Past service cost	(48)	(37)
Plan settlements	–	(357)
Other changes	(65)	3
Currency effects	795	628
<b>Defined benefit obligation as of December 31</b>	<b>24,861</b>	<b>25,474</b>

In the Netherlands in 2014, pension obligations and plan assets were transferred to an insurance company with discharging effect in connection with a plan settlement.

As of December 31, 2015, the weighted average duration of the defined benefit obligation amounted to 15.3 years (previous year: 16.1 years).



**Development of plan assets** (in million €)

	2015	2014
Plan assets as of January 1	18,252	17,186
Standardized return on plan assets	487	659
Deviation between actual and standardized return on plan assets	(145)	678
Employer contributions	284	397
Participants' contributions	53	54
Benefits paid	(630)	(784)
Effects from acquisitions and divestitures	(165)	–
Past service cost	(36)	–
Plan settlements	–	(379)
Other changes	(39)	(23)
Currency effects	620	464
<b>Plan assets as of December 31</b>	<b>18,681</b>	<b>18,252</b>

The standardized return on plan assets is calculated by multiplying plan assets at the beginning of the year with the discount rate used for existing defined benefit obligation at the beginning of the year, taking into account benefit and contribution payments expected to be made during the year.

The estimated contribution payments for defined benefit plans for 2016 are €300 million.

**Development of asset ceiling** (in million €)

	2015	2014
Asset ceiling as of January 1	–	82
Interest cost for the asset ceiling	–	2
Changes recognized directly in equity in the business year	–	(84)
<b>Asset ceiling as of December 31</b>	<b>–</b>	<b>–</b>

Assets from overfunded plans can only be recognized to the extent that it is possible that the existing overfunded plans can be used for the reduction of future contributions or the return

to plan sponsors. To the extent that these requirements are not met, recognition is not possible due to the necessity of an asset ceiling.

**Development of the net defined benefit liability** (in million €)

	2015	2014
Net defined benefit liability as of January 1	(7,222)	(3,680)
Current service cost	(397)	(301)
Interest cost	(680)	(806)
Interest cost for the asset ceiling	–	(2)
Standardized return on plan assets	487	659
Deviation between actual and standardized return on plan assets	(145)	678
Actuarial gains/losses of the defined benefit obligation	1,106	(4,251)
Changes in asset ceiling recognized directly in equity	–	84
Benefits paid by unfunded plans	376	175
Employer contributions	284	397
Effects from acquisitions and divestitures	148	–
Past service cost	12	37
Plan settlements	–	(22)
Other changes	26	(26)
Currency effects	(175)	(164)
<b>Net defined benefit liability as of December 31</b>	<b>(6,180)</b>	<b>(7,222)</b>
Thereof defined benefit assets	133	91
provisions for pensions and similar obligations	(6,313)	(7,313)

**Regional allocation of defined benefit plans as of December 31** (in million €)

	Pension obligations		Plan assets		Net defined benefit liability	
	2015	2014	2015	2014	2015	2014
Germany	16,029	16,864	11,671	11,394	(4,358)	(5,470)
United States	4,356	4,131	2,717	2,604	(1,639)	(1,527)
Switzerland	2,108	2,019	1,939	1,875	(169)	(144)
United Kingdom	1,780	1,769	1,890	1,840	110	71
Other	588	691	464	539	(124)	(152)
<b>Total</b>	<b>24,861</b>	<b>25,474</b>	<b>18,681</b>	<b>18,252</b>	<b>(6,180)</b>	<b>(7,222)</b>

**Explanations regarding plan assets**

The target asset allocation has been defined by using asset liability studies and is reviewed regularly. Accordingly, plan assets are aligned with the long-term development of the obligations, taking into consideration the risks associated with the specific asset classes and the regulations relating to the investment of plan assets. The existing portfolio structure is oriented towards the target asset allocation. In addition, current market assessments are taken into consideration. In order to mitigate risks and maximize returns, a widely spread global portfolio of individual asset classes is held.

Liability-driven investment (LDI) techniques, such as hedging the risk of changes in interest rates and inflation, are used in some pension plans, especially in the U.K. and U.S. plans.

**Structure of plan assets** (in %)

	2015	2014
Equities	26	27
Debt instruments	54	55
Thereof for government debtors	15	11
for other debtors	39	44
Real estate	4	4
Alternative investments	15	13
Cash and cash equivalents	1	1
<b>Total</b>	<b>100</b>	<b>100</b>

The asset class **debt instruments** comprises promissory notes and debentures (Pfandbriefe) in addition to corporate and government bonds. Government bonds primarily concern bonds from those countries enjoying the highest credit ratings, such as the United States, United Kingdom, Germany and Switzerland. Corporate bonds mainly comprise investment-grade bonds,

whereby particular high-yield bonds are also held to a limited extent. In connection with the ongoing monitoring of default risk based on a given risk budget and on the continuous observation of the development of the creditworthiness of issuers, an adjustment of plan asset allocation to a revised market assessment may be made, if necessary. **Alternative investments** largely comprise investments in private equity, absolute return funds and senior secured loans.

Almost all of the **equities** are priced on active markets. The category **debt instruments** includes promissory notes and debentures (Pfandbriefe), which were acquired through private placements with a market value in the amount of €1,072 million as of December 31, 2015, and €1,381 million as of December 31, 2014. For such securities, especially those held by domestic pension plans, there is no active market. The capital market compensates for this lack of fungibility with yield premiums depending on the maturity. With only a few exceptions, there is no active market for plan assets in **real estate** and **alternative investments**.

On December 31, 2015, plan assets contained securities issued by BASF Group companies with a market value of €11 million in 2015 and €10 million in 2014. The market value of the properties of legally independent pension funds rented to BASF Group companies amounted to €151 million on December 31, 2015, and €168 million on December 31, 2014.

Since 2010 there has been an agreement between BASF SE and BASF Pensionskasse about the granting of profit participation capital with a nominal value of €80 million, which is used to strengthen the financing of the BASF Pensionskasse. No material transactions beyond this took place between the legally independent pension funds and BASF Group companies in 2015.

The funding of the plans was as follows:

**Current funding situation of the pension plans as of December 31** (in million €)

	2015		2014	
	Defined benefit obligation	Plan assets	Defined benefit obligation	Plan assets
Unfunded pension plans	2,611	–	2,800	–
Funded pension plans	22,250	18,681	22,674	18,252
<b>Total</b>	<b>24,861</b>	<b>18,681</b>	<b>25,474</b>	<b>18,252</b>

## Defined contribution plans and government pensions

The contributions to defined-contribution plans contained in income from operations amounted to €273 million in 2015 and €274 million in 2014.


Contributions to government pension plans were €609 million in 2015 and €573 million in 2014.

## 23 Other provisions


Million €	December 31, 2015		December 31, 2014	
		Thereof current		Thereof current
Restoration obligations	1,266	72	1,428	84
Environmental protection and remediation costs	538	59	621	166
Employee obligations	1,569	1,150	1,744	1,333
Obligations from sales and purchase contracts	775	763	715	708
Restructuring measures	196	165	156	103
Litigation, damage claims, warranties and similar commitments	86	29	112	48
Other	1,479	302	1,570	402
<b>Total</b>	<b>5,909</b>	<b>2,540</b>	<b>6,346</b>	<b>2,844</b>

**Restoration obligations** primarily relate to the estimated costs for the filling of wells and the removal of production equipment after the end of production in the Oil & Gas segment. Provisions for restoration obligations decreased by €340 million as a result of the asset swap with Gazprom and the reclassification of Wintershall Noordzee B.V., Rijswijk, Netherlands, to the equity method.

Provisions for **environmental protection and remediation costs** cover expected costs for rehabilitating contaminated sites, recultivating landfills, removal of environmental contamination at existing production or storage sites and similar measures. The decrease in provisions was almost entirely attributable to the changed accounting for emission right certificates granted free of charge.

 For more information about the measurement of emission right certificates, see Note 1.2 on page 162

Provisions for **employee obligations** primarily include obligations for the granting of long-service bonuses and anniversary payments, variable compensation including associated social security contributions, as well as provisions for early retirement programs for employees nearing retirement. The decline was mainly attributable to lower accruals for variable compensation components.

 For more information on provisions for the long-term incentive program, see Note 30 from page 218 onward

**Obligations from sales and purchase contracts** largely include obligations arising from rebates granted and other price discounts in the Agricultural Solutions segment, warranties and product liability, sales commissions, expected losses on committed purchases and onerous contracts.

The **restructuring measures** provisions include severance payments to employees as well as expected costs for site closures, including the costs for demolition and similar measures. The increase in provisions resulted from higher accruals for restructuring measures in North America. On the balance sheet date, €115 million was attributable to provisions for severance payments.

Provisions for **litigation, damage claims, warranties and similar commitments** contain anticipated expenses from lawsuits in which BASF is the defendant party, as well as obligations under damage claims against BASF and fines.

**Other** largely includes noncurrent tax provisions.

The following table shows the development of other provisions by category. Other changes include changes in the scope of consolidation, acquisitions, divestitures, currency effects and the reclassification of obligations to liabilities when the amount and timing of these obligations became known.

## Development of other provisions in 2015 (in million €)

	Jan. 1, 2015	Additions	Unwinding of the discount	Utilization	Reversals	Other changes	Dec. 31, 2015
Restoration obligations	1,428	187	46	(70)	(4)	(321)	1,266
Environmental protection and remediation costs	621	63	7	(158)	(13)	18	538
Employee obligations	1,744	1,277	4	(1,365)	(75)	(16)	1,569
Obligations from sales and purchase contracts	715	640	–	(543)	(42)	5	775
Restructuring measures	156	129	–	(62)	(32)	5	196
Litigation, damage claims, warranties and similar commitments	112	48	–	(26)	(29)	(19)	86
Other	1,570	312	2	(281)	(157)	33	1,479
<b>Total</b>	<b>6,346</b>	<b>2,656</b>	<b>59</b>	<b>(2,505)</b>	<b>(352)</b>	<b>(295)</b>	<b>5,909</b>

## 24 Liabilities

## Financial indebtedness (in million €)

	Currency	Nominal value (million, currency of issue)	Effective interest rate	Carrying amounts based on effective interest method	
				December 31, 2015	December 31, 2014
<b>BASF SE</b>					
Commercial paper	USD	1,869		1,714	124
4.5% Bond 2006/2016	EUR	500	4.62%	500	499
Variable Bond 2013/2016	EUR	200	variable	200	200
4.25% Bond 2009/2016	EUR	200	4.40%	200	199
Variable Bond 2014/2017	EUR	300	variable	300	300
5.875% Bond 2009/2017	GBP	400	6.04%	544	512
4.625% Bond 2009/2017	EUR	300	4.69%	300	300
1.375% Bond 2014/2017	GBP	250	1.46%	340	320
Variable Bond 2013/2018	EUR	300	variable	300	300
1.5% Bond 2012/2018	EUR	1,000	1.51%	1,000	1,000
1.375% Bond 2014/2019	EUR	750	1.44%	749	748
Variable Bond 2013/2020	EUR	300	variable	300	300
1.875% Bond 2013/2021	EUR	700	1.94%	698	697
2% Bond 2012/2022	EUR	1,250	1.93%	1,256	1,257
2.5% Bond 2014/2024	EUR	500	2.60%	496	496
3.675% Bond 2013/2025	NOK	1,450	3.70%	151	160
3% Bond 2013/2033	EUR	500	3.15%	490	490
2.875% Bond 2013/2033	EUR	200	3.09%	198	198
3.25% Bond 2013/2043	EUR	200	3.27%	199	199
3.89% US Private Placement Series A 2013/2025	USD	250	3.92%	229	205
4.09% US Private Placement Series B 2013/2028	USD	700	4.11%	641	575
4.43% US Private Placement Series C 2013/2034	USD	300	4.45%	275	246
<b>BASF Finance Europe N.V.</b>					
3.625% Bond 2008/2015	CHF	200	3.77%	–	166
5.125% Bond 2009/2015	EUR	2,000	5.07%	–	2,001
<b>Ciba Specialty Chemicals Finance Luxembourg S.A.</b>					
4.875% Bond 2003/2018	EUR	477	4.88%	449	438
<b>Other bonds</b>				<b>672</b>	<b>618</b>
<b>Bonds and other liabilities to the capital market</b>				<b>12,201</b>	<b>12,548</b>
Liabilities to credit institutions				2,996	2,836
<b>Financial indebtedness</b>				<b>15,197</b>	<b>15,384</b>

**Breakdown of financial indebtedness by currency** (in million €)

	December 31, 2015	December 31, 2014
Euro	9,499	11,366
U.S. dollar	3,659	1,696
British pound	884	833
Brazilian real	268	326
Chinese renminbi	261	429
Argentinian peso	167	57
Norwegian krone	151	160
Indian rupee	81	100
Turkish lira	74	88
Ukrainian hryvnia	65	46
Swiss franc	–	166
Canadian dollar	–	39
Other currencies	88	78
<b>Total</b>	<b>15,197</b>	<b>15,384</b>

**Maturities of financial indebtedness** (in million €)

	December 31, 2015	December 31, 2014
Following year 1	4,074	3,545
Following year 2	1,625	981
Following year 3	1,865	1,526
Following year 4	2,099	1,790
Following year 5	303	2,170
Following year 6 and maturities beyond this year	5,231	5,372
<b>Total</b>	<b>15,197</b>	<b>15,384</b>

**Other bonds**

Other bonds consist primarily of industrial revenue and pollution control bonds of the BASF Corporation group that were used to finance investments in the United States. Both the weighted-average interest rate of these bonds as well as their weighted-average effective interest rate amounted to 1.5% in 2015 and 1.6% in 2014. The average residual term amounted to 210 months as of December 31, 2015 (December 31, 2014: 222 months).

**Liabilities to credit institutions**

In order to finance the natural gas trading and storage business, a €1,650 million loan was incurred with a 5-year term at an interest rate of 1.08% in the previous year.

As a result of higher volumes of loans in emerging countries, the weighted average interest rate on loans increased to 4.9% in 2015 compared with 4.0% in 2014.

**Unused credit lines**

BASF SE had committed and unused credit lines with variable interest rates amounting to €6,000 million as of December 31, 2015 and as of December 31, 2014.

**Other liabilities** (in million €)

	December 31, 2015		December 31, 2014	
	Current	Noncurrent	Current	Noncurrent
Derivative instruments with negative fair values	288	75	1,172	64
Liabilities from finance leases	22	60	19	71
Loans and interest liabilities	331	265	303	632
Miscellaneous liabilities	732	43	969	47
<b>Other liabilities which qualify as financial instruments</b>	<b>1,373</b>	<b>443</b>	<b>2,463</b>	<b>814</b>
Advances received on orders	447	–	374	–
Liabilities related to social security	73	95	148	23
Employee liabilities	218	147	240	171
Liabilities from precious metal trading positions	73	–	18	–
Deferred income	71	163	154	179
Miscellaneous liabilities	265	21	167	10
<b>Other liabilities which do not qualify as financial instruments</b>	<b>1,147</b>	<b>426</b>	<b>1,101</b>	<b>383</b>
<b>Other liabilities</b>	<b>2,520</b>	<b>869</b>	<b>3,564</b>	<b>1,197</b>

**Other liabilities**

The decline in **other liabilities** was primarily attributable to the asset swap with Gazprom and largely affected the current negative fair values arising from derivatives as well as non-current loans and interest liabilities. The appreciation of the U.S. dollar relative to the euro further led to a decrease in the negative fair values arising from derivatives.

For more information on financial risks and derivative financial instruments, see Note 27 from page 210 onward

For more information on liabilities arising from leasing contracts, see Note 28 from page 216 onward

**Secured liabilities** (in million €)

	Dec. 31, 2015	Dec. 31, 2014
Liabilities to credit institutions	26	24
Other liabilities	24	92
<b>Secured liabilities</b>	<b>50</b>	<b>116</b>

**Liabilities to credit institutions** were secured primarily with registered land charges. The decline in secured **other liabilities** compared with December 31, 2014, is primarily attributable to the disposal of WINGAS GmbH, Kassel, Germany, as part of the asset swap with Gazprom. As in the previous year, there were no secured contingent liabilities in 2015.

**25 Other financial obligations**

The figures listed below are stated at nominal value:

Million €	December 31, 2015	December 31, 2014
Bills of exchange	6	3
Guarantees	49	52
Warranties	87	58
Collateral granted on behalf of third-party liabilities	–	1
Initiated investment projects	4,672	6,955
Thereof purchase commitments	1,429	1,761
for the purchase of intangible assets	10	21
Payment and loan commitments and other financial obligations	80	79

The decline in **initiated investment projects** from €6,955 million as of December 31, 2014 to €4,672 million as

of December 31, 2015 was primarily attributable to the completion of several investment projects in 2015.



## Assets used under long-term leases

Assets used under long-term leases primarily concerned buildings and IT infrastructure.

For more information on liabilities arising from leasing contracts, see Note 28 from page 216 onward

### Obligations arising from long-term leases (excluding finance leases) (in million €)

2016	413
2017	284
2018	220
2019	157
2020	123
2021 and maturities beyond this year	357
<b>Total</b>	<b>1,554</b>

## Obligations arising from purchase contracts

Obligations arising from purchase contracts resulted primarily from long-term purchase obligations for raw materials. Firm purchase obligations as of December 31, 2015, were as follows:

### Obligations arising from purchase contracts (in million €)

2016	8,050
2017	5,146
2018	4,272
2019	3,623
2020	2,824
2021 and maturities beyond this year	10,225
<b>Total</b>	<b>34,140</b>

The year-on-year decrease of €97,711 million to €34,140 million in obligations arising from purchase contracts was mainly the result of the disposal of WINGAS GmbH, Kassel, Germany, and its purchase obligations from natural gas purchasing agreements.

## 26 Risks from litigation and claims

On August 12, 2014, Metrogas S.A., Chile, filed its Statement of Claim in the arbitration proceedings initiated in May 2013 against Wintershall Energia S.A., Argentina (WIAR), Total Austral S.A., Argentina, and Pan American Energy LLC, Argentina. The defendants, as sellers, concluded a natural gas supply contract with Metrogas in 1997. Metrogas claims damages valued in an amount of €220 million as a result of insufficient gas deliveries. WIAR's share of supply in the contract is 37.5%. The defendants submitted their response to the proof of claim on December 10, 2014. The first witness and expert hearing is scheduled for May 2016. The defendants are of the opinion that Metrogas does not have any claim for damages.

BASF Corporation has potential liability under the Comprehensive Response, Compensation and Liability Act of 1980, as amended, and related state laws for investigation and cleanup at certain sites. The Lower Passaic River Study Area (LPRSA) is one such site comprising the lower 17 miles of the Passaic River in New Jersey. BASF Corporation, along with more than 60 other companies (The Lower Passaic River Study Area Cooperating Parties Group, CPG), agreed with the U.S. Environmental Protection Agency (USEPA) to perform a remedial investigation and feasibility study of the LPRSA. Based on the remedy concept proposed by the CPG and BASF's estimates of its share of these costs, BASF now considers its portion to be immaterial. It is currently anticipated that the final decision on the remedy for the lower portion of the LPRSA will be taken in the course of the year 2016, with a decision for the upper portion thereafter.

Since November 2014, a putative class action lawsuit in the United States District Court of the Southern District of New York has been pending against BASF Metals Limited (BML), along with other defendants, alleging violations of antitrust and commodities laws stemming from the price discovery process for platinum and palladium. BASF Metals Limited, based in the United Kingdom, and the other three defendants are accused of improper conduct concerning the calculation of the market prices of platinum and palladium. Four additional lawsuits were filed between November 2014 and March 2015. All these matters were consolidated, and a Second Consolidated Amended Class Action Complaint was eventually filed in July 2015. This Complaint also names as a defendant, among others, BASF Corporation. On September 21, 2015, defendants filed a Joint Motion to Dismiss the Second Consolidated Amended Class Action Complaint, and BML and BASF Corporation filed individual motions to dismiss. In addition, a pro se complaint with similar allegations was filed in the same court in September 2015, and is currently on a separate schedule than the consolidated action. In spring 2015, the European Commission conducted investigations into the allegation of anticompetitive practices in precious metal spot trading within the E.U. and European Economic Area made toward BASF and various banks. This investigation has not yet returned results.

Furthermore, BASF SE and its affiliated companies are defendants in or parties to a variety of judicial, arbitrational or regulatory proceedings on a recurring basis. To our current knowledge, none of these proceedings will have a material effect on the economic situation of BASF.

## 27 Supplementary information on financial instruments

### 27.1 Financial risks

#### Market risks

**Foreign currency risks:** Changes in exchange rates could lead to negative changes in the value of financial instruments and adverse changes in future cash flows from planned transactions. Foreign currency risks from financial instruments result from the translation at the closing rate of financial receivables, loans, securities, cash and financial liabilities into the functional currency of the respective Group company. Foreign currency contracts in a variety of currencies are used to hedge foreign exchange risks from primary financial instruments and planned transactions.

The foreign currency risk exposure corresponds to the net amount of the nominal volume of the primary and the derivative financial instruments which are exposed to currency risks. In addition, planned purchase and sales transactions of the respective following year are included, if they fall under the currency risk management system. Opposite positions in the same currency are offset against each other.

The sensitivity analysis is conducted by simulating a 10% appreciation of the respective functional currency against the other currencies. The effect on BASF's income before taxes and minority interests would have been minus €340 million as of December 31, 2015, and minus €351 million as of December 31, 2014. The effect from the items designated under hedge accounting would have increased the equity of the shareholders of BASF SE before income taxes by €52 million on December 31, 2015 (2014: increase of €48 million). After the completion of the asset swap with Gazprom, this only refers to transactions in U.S. dollars. The currency exposure amounted to €2,201 million on December 31, 2015 (December 31, 2014: €2,009 million).

#### Exposure and sensitivity by currency (in million €)

	Exposure Dec. 31, 2015	Sensitivity Dec. 31, 2015	Exposure Dec. 31, 2014	Sensitivity Dec. 31, 2014
USD	2,057	(260)	1,767	(261)
Other	144	(28)	242	(42)
<b>Total</b>	<b>2,201</b>	<b>(288)</b>	<b>2,009</b>	<b>(303)</b>

Due to the use of options to hedge currency risks, the sensitivity analysis is not a linear function of the assumed changes in exchange rates.

**Interest rate risks:** Interest rate risks result from changes in prevailing market interest rates, which can cause a change in the fair value of fixed-rate instruments, and changes in the interest payments of variable-rate instruments. To hedge these risks, interest rate swaps and combined interest rate and currency derivatives are used. While these risks are relevant to the financing activities of BASF, they are not of material significance for BASF's operating activities.

The variable interest exposure, which also includes fixed rate bonds set to mature in the following year, amounted to minus €2,786 million as of December 31, 2015, compared with minus €3,343 million as of December 31, 2014. An increase in all relevant interest rates by one percentage point would have raised income before taxes and minority interests by €7 million as of December 31, 2015, and raised income before taxes and minority interests by €12 million as of December 31, 2014. The effect from the items designated under hedge accounting would have increased equity before income taxes by €20 million on December 31, 2015 (2014: increase of €30 million).

#### Carrying amount of nonderivative interest-bearing financial instruments (in million €)

	December 31, 2015		December 31, 2014	
	Fixed interest rate	Variable interest rate	Fixed interest rate	Variable interest rate
Loans	258	744	264	760
Securities	69	58	33	42
Financial indebtedness	11,114	4,083	11,673	3,711

#### Nominal and fair values of interest rate swaps and combined interest and cross-currency swaps (in million €)

	December 31, 2015		December 31, 2014	
	Nominal value	Fair value	Nominal value	Fair value
<b>Interest rate swaps</b>	<b>1,900</b>	<b>(31)</b>	<b>1,900</b>	<b>(31)</b>
Thereof payer swaps	1,900	(31)	1,900	(31)
<b>Combined interest and cross-currency swaps</b>	<b>2,047</b>	<b>315</b>	<b>1,979</b>	<b>142</b>
Thereof fixed rate	1,856	297	1,979	142

**Commodity price risks:** Some of BASF's divisions are exposed to strong fluctuations in raw material prices. These result primarily from raw materials (for example, naphtha, propylene, benzene, lauric oils, titanium dioxide, cyclohexane, methanol, natural gas, butadiene, LPG condensate and ammonia) as well as from precious metals. BASF takes the following measures to reduce price risks associated with the purchase of raw materials:

- BASF uses commodity derivatives to hedge the risks from the volatility of raw material prices. These are primarily options and swaps on crude oil, oil products and natural gas.
- In order to secure margins, the Oil & Gas segment used commodity derivatives, primarily swaps on oil products, up to the completion of the asset swap with Gazprom. Risks to margins arise in volatile markets when purchase and sales contracts are priced differently.
- The Catalysts division enters into both short-term and long-term purchase contracts with precious metal producers. It also buys precious metals on spot markets from a variety of business partners. The price risk from precious metals purchased to be sold on to third parties, or for use in the production of catalysts, is hedged using derivative instruments. This is mainly done using forward contracts which are settled by either entering into offsetting contracts or by delivering the precious metals.
- In the Crop Protection division, the sales prices of products are sometimes coupled to the price of certain agricultural commodities. To hedge the resulting risks, derivatives on agricultural commodities are concluded.

In addition, BASF holds limited unhedged precious metal and oil product positions, which can also include derivatives, for trading on its own account. The value of these positions is exposed to market price volatility and is subject to constant monitoring.

In connection with CO<sub>2</sub> emissions trading, various types of CO<sub>2</sub> certificates are purchased and sold using forward contracts. The goal of these transactions is to benefit from market price differences. These deals are settled by physical delivery. As of December 31, 2015 as well as of December 31, 2014, there were no deals outstanding. BASF utilizes emission certificate derivatives on a limited scale.

By holding commodity derivatives and precious metal trading positions, BASF is exposed to price risks. The valuation of commodity derivatives and precious metal trading positions at fair value means that adverse changes in market prices could negatively affect the earnings and equity of BASF.

BASF performs value-at-risk analyses for all commodity derivatives and precious metals trading positions. Using the value-at-risk analysis, we continually quantify market risk and forecast the maximum possible loss within a given confidence interval over a defined period. The value-at-risk calculation is based on a confidence interval of 95% and a holding period of one day. The value-at-risk calculation for precious metals is based on a confidence interval of 99%. BASF uses the variance-covariance approach.

BASF uses value at risk as a supplement to other risk management tools. Besides value at risk, BASF sets volume-based limits as well as exposure and stop-loss limits.

#### Exposure to commodity derivatives (in million €)

	December 31, 2015		December 31, 2014	
	Exposure	Value at risk	Exposure	Value at risk
Crude oil, oil products and natural gas	58	2	959	22
Precious metals	23	1	61	1
Emission certificates	10	1	14	1
Agricultural commodities	0	0	120	0
<b>Total</b>	<b>91</b>	<b>4</b>	<b>1,154</b>	<b>24</b>

The exposure corresponds to the net amount of all long and short positions of the respective commodity category.

 For more information regarding financial risks and BASF's risk management, see the chapter "Opportunities and risks report" in the Management's Report from page 113 onward

#### Default and credit risk

Default and credit risks arise when counterparties do not fulfill their contractual obligations. BASF regularly analyzes the creditworthiness of each significant debtor and grants credit limits on the basis of this analysis. Due to the global activities and diversified customer structure of the BASF Group, there is no significant concentration of default risk. The carrying amount of all receivables, loans and interest-bearing securities plus the nominal value of other financial obligations subject to default risk represents the maximum default risk for BASF.

 For more information on credit risks, see Note 18 from page 196 onward

#### Liquidity risks

BASF promptly recognizes any risks from cash flow fluctuations as part of the liquidity planning. BASF has ready access to sufficient liquid funds from our ongoing commercial paper program and confirmed lines of credit from banks.

## 27.2 Maturity analysis

The interest and principal payments as well as other payments for derivative financial instruments are relevant for the presentation of the maturities of the contractual cash flows from financial liabilities. Future cash flows are not discounted here.

Derivatives are included using their net cash flows, provided they have a negative fair value and therefore represent a liability. Derivatives with positive fair values are assets and are therefore not considered.

Trade accounts payable are generally interest-free and due within one year. Therefore the carrying amount of trade accounts payable equals the sum of future cash flows.

### Maturities of contractual cash flows from financial liabilities as of December 31, 2015 (in million €)

	Bonds and other liabilities to the capital market	Liabilities to credit institutions	Liabilities resulting from derivative financial instruments	Miscellaneous liabilities	Total
2016	2,979	1,414	339	1,258	5,990
2017	1,738	145	8	47	1,938
2018	2,001	119	13	28	2,161
2019	910	1,351	8	18	2,287
2020	449	3	14	14	480
2021 and thereafter	6,497	8	43	315	6,863
<b>Total</b>	<b>14,574</b>	<b>3,040</b>	<b>425</b>	<b>1,680</b>	<b>19,719</b>

### Maturities of contractual cash flows from financial liabilities as of December 31, 2014 (in million €)

	Bonds and other liabilities to the capital market	Liabilities to credit institutions	Liabilities resulting from derivative financial instruments	Miscellaneous liabilities	Total
2015	2,748	1,197	821	877	5,643
2016	1,178	57	33	40	1,308
2017	1,680	24	6	37	1,747
2018	1,995	3	12	12	2,022
2019	905	1,572	3	11	2,491
2020 and thereafter	6,484	8	44	624	7,160
<b>Total</b>	<b>14,990</b>	<b>2,861</b>	<b>919</b>	<b>1,601</b>	<b>20,371</b>

## 27.3 Classes and categories of financial instruments

For trade accounts receivable, other receivables and miscellaneous assets, loans, cash and cash equivalents, as well as trade accounts payable and other liabilities, the carrying amount approximates the fair value. Shareholdings which are not traded on an active market and whose fair value could not be reliably determined are recognized at amortized cost and are reported under other financial assets.

The fair value of financial indebtedness is determined on the basis of interbank interest rates. The difference between carrying amounts and fair values results primarily from changes in market interest rates.

## Carrying amounts and fair values of financial instruments as of December 31, 2015 (in million €)

	Carrying amount	Total carrying amount within scope of application of IFRS 7	Valuation category in accordance with IAS 39 <sup>2</sup>	Fair value	Thereof fair value level 1 <sup>3</sup>	Thereof fair value level 2 <sup>4</sup>	Thereof fair value level 3 <sup>5</sup>
Shareholdings <sup>1</sup>	420	420	Afs	0	0	–	–
Receivables from finance leases	41	41	n/a	41	–	–	–
Accounts receivable, trade	9,516	9,516	LaR	9,516	–	–	–
Derivatives – no hedge accounting	650	650	aFVtPL	650	42	608	–
Derivatives – with hedge accounting	208	208	n/a	208	–	208	–
Other receivables and other assets <sup>6</sup>	3,916	1,508	LaR	1,508	–	–	–
Securities	127	127	Afs	127	127	–	–
Cash and cash equivalents	2,241	2,241	LaR	2,241	2,241	–	–
<b>Total assets</b>	<b>17,119</b>	<b>14,711</b>		<b>14,291</b>	<b>2,410</b>	<b>816</b>	<b>–</b>
Bonds	10,487	10,487	AmC	11,109	–	–	–
Commercial paper	1,714	1,714	AmC	1,714	–	–	–
Liabilities to credit institutions	2,996	2,996	AmC	2,996	–	–	–
Liabilities from finance leases	82	82	n/a	82	–	–	–
Accounts payable, trade	4,020	4,020	AmC	4,020	–	–	–
Derivatives – no hedge accounting	334	334	aFVtPL	334	22	312	–
Derivatives – with hedge accounting	29	29	n/a	29	–	29	–
Other liabilities <sup>6</sup>	2,944	1,371	AmC	1,371	–	–	–
<b>Total liabilities</b>	<b>22,606</b>	<b>21,033</b>		<b>21,655</b>	<b>22</b>	<b>341</b>	<b>–</b>

## Carrying amounts and fair values of financial instruments as of December 31, 2014 (in million €)

	Carrying amount	Total carrying amount within scope of application of IFRS 7	Valuation category in accordance with IAS 39 <sup>2</sup>	Fair value	Thereof fair value level 1 <sup>3</sup>	Thereof fair value level 2 <sup>4</sup>	Thereof fair value level 3 <sup>5</sup>
Shareholdings <sup>1</sup>	462	462	Afs	0	0	–	–
Receivables from finance leases	43	43	n/a	43	–	–	–
Accounts receivable, trade	10,385	10,385	LaR	10,385	–	–	–
Derivatives – no hedge accounting	772	772	aFVtPL	772	23	749	–
Derivatives – with hedge accounting	61	61	n/a	61	–	61	–
Other receivables and other assets <sup>6</sup>	4,654	1,965	LaR	1,965	–	–	–
Securities	97	97	Afs	97	97	–	–
Cash and cash equivalents	1,718	1,718	LaR	1,718	1,718	–	–
<b>Total assets</b>	<b>18,192</b>	<b>15,503</b>		<b>15,041</b>	<b>1,838</b>	<b>810</b>	<b>–</b>
Bonds	12,424	12,424	AmC	13,234	–	–	–
Commercial paper	124	124	AmC	124	–	–	–
Liabilities to credit institutions	2,836	2,836	AmC	2,836	–	–	–
Liabilities from finance leases	90	90	n/a	90	–	–	–
Accounts payable, trade	4,861	4,861	AmC	4,861	–	–	–
Derivatives – no hedge accounting	622	622	aFVtPL	622	13	609	–
Derivatives – with hedge accounting	614	614	n/a	614	–	614	–
Other liabilities <sup>6</sup>	3,435	1,952	AmC	1,952	–	–	–
<b>Total liabilities</b>	<b>25,006</b>	<b>23,523</b>		<b>24,333</b>	<b>13</b>	<b>1,223</b>	<b>–</b>

<sup>1</sup> The difference between carrying amount and fair value results from shareholdings measured at acquisition cost, for which the fair value could not be reliably determined (2015: €420 million; 2014: €462 million).

<sup>2</sup> Afs: available-for-sale (category: available-for-sale financial assets); LaR: loans and receivables (category: loans and receivables); aFVtPL: at-fair-value-through-profit-or-loss (category: financial assets and liabilities at fair value recognized in the income statement); AmC: amortized cost (category: financial liabilities which are not derivatives); a more detailed description of the categories can be found in Note 1 from page 162 onward.

<sup>3</sup> Determination of the fair value based on quoted, unadjusted prices on active markets

<sup>4</sup> Determination of the fair value based on parameters for which directly or indirectly quoted prices on active markets are available

<sup>5</sup> Determination of the fair value based on parameters for which there is no observable market data

<sup>6</sup> Not including separately shown derivatives as well as receivables and liabilities from finance leases

**Offsetting of financial assets and financial liabilities as of December 31, 2015** (in million €)

	Amounts which can be offset			Amounts which cannot be offset		Potential net amount
	Gross amount	Amount offset	Net amount	Due to global netting agreements	Relating to financial collateral	
Derivatives with positive fair values	710	(22)	688	(134)	(296)	258
Derivatives with negative fair values	348	(22)	326	(134)	(7)	185

**Offsetting of financial assets and financial liabilities as of December 31, 2014** (in million €)

	Amounts which can be offset			Amounts which cannot be offset		Potential net amount
	Gross amount	Amount offset	Net amount	Due to global netting agreements	Relating to financial collateral	
Derivatives with positive fair values	788	(4)	784	(293)	(6)	485
Derivatives with negative fair values	1,201	(4)	1,197	(297)	(77)	823

The table “Offsetting of financial assets and financial liabilities” shows the extent to which financial assets and financial liabilities are offset in the balance sheet, as well as potential effects from the offsetting of instruments subject to a legally enforceable global netting agreement or similar agreement. For positive fair values from combined interest and cross-currency swaps, the respective counterparties provided cash collaterals in the amount of the outstanding fair values.

Deviations from the derivatives with positive and negative fair values reported in other receivables and other liabilities at the end of 2015 and 2014 arose mainly from embedded derivatives as well as derivatives not subject to any netting agreements and therefore are not included in the table above.


Net gains and losses from financial instruments comprise the results of valuations, the amortization of discounts, the recognition and reversal of impairments, results from the translation of foreign currencies as well as interest, dividends and all other effects on the earnings resulting from financial instruments. The line item financial instruments at fair value through profit or loss contains only those gains and losses from instruments which are not designated as hedging instruments as defined by IAS 39. Net gains or net losses from available-for-sale financial assets contain income and expenses from write-downs/write-ups, interest, dividends and the reclassification of valuation effects from equity on the sale of the securities and shareholdings.

**Net gains and losses from financial instruments** (in million €)

	2015	2014
Loans and receivables	(31)	389
Thereof interest result	105	105
Available-for-sale financial assets	10	224
Thereof interest result	0	1
Financial liabilities measured at amortized cost	(1,127)	(1,056)
Thereof interest result	(375)	(421)
Financial instruments at fair value through profit or loss	595	(19)



The net losses from loans and receivables as well as from financial liabilities measured at amortized cost primarily relates to the results from the translation of foreign currencies. Contrasting this were higher net gains from hedging transactions as compared with the previous year.

 The gains and losses from the valuation of securities and shareholdings recognized in the equity of the shareholders of BASF SE are shown in the Statement of income and expense recognized in equity on page 158.

## 27.4 Derivative instruments and hedge accounting

### The use of derivative instruments

BASF is exposed to foreign-currency, interest-rate and commodity-price risks during the normal course of business. These risks are hedged through a centrally determined strategy employing derivative instruments. Hedging is only employed for underlying positions from the operating business, cash investments, and financing as well as for planned sales, raw material purchases and capital measures. The risks from the underlying transactions and the derivatives are constantly

monitored. Where derivatives have a positive market value, BASF is exposed to credit risks from derivative transactions in the event of nonperformance of the other party. To minimize the default risk on derivatives with positive market values, transactions are exclusively conducted with creditworthy banks and partners and are subject to predefined credit limits.

To ensure effective risk management, risk positions are centralized at BASF SE and certain Group companies. The contracting and execution of derivative financial instruments for hedging purposes are conducted according to internal guidelines, and subject to strict control mechanisms.

The fair values of derivative financial instruments are calculated using valuation models which use input parameters observable on the market. Exceptions to this are some commodity derivatives, whose valuation is based directly on market prices.

### Fair value of derivative instruments (in million €)

	December 31, 2015	December 31, 2014
Foreign currency forward contracts	56	(104)
Foreign currency options	53	80
<b>Foreign currency derivatives</b>	<b>109</b>	<b>(24)</b>
Thereof designated hedging instruments as defined by IAS 39 (hedge accounting)	8	(45)
Interest rate swaps	(31)	(31)
Thereof designated hedging instruments as defined by IAS 39 (hedge accounting)	(27)	(30)
Combined interest and cross-currency swaps	315	142
Thereof designated hedging instruments as defined by IAS 39 (hedge accounting)	197	39
<b>Interest derivatives</b>	<b>284</b>	<b>111</b>
<b>Commodity derivatives</b>	<b>102</b>	<b>(490)</b>
Thereof designated hedging instruments as defined by IAS 39 (hedge accounting)	1	(517)
<b>Derivative financial instruments</b>	<b>495</b>	<b>(403)</b>

### Cash flow hedge accounting

Some of the planned purchases of naphtha are hedged using swaps and options on oil and oil products. Some of these hedges were shown in the Consolidated Financial Statements of the BASF Group by means of cash flow hedge accounting, where gains and losses from hedges were initially recognized directly in equity. Gains and losses from hedges are included in cost of sales at the point in time at which the hedged item is recognized in the consolidated statement of income.

Furthermore, cash flow hedge accounting is used to a minor extent for natural gas purchases.

Cash flow hedge accounting was applied in the Natural Gas Trading business sector for crude oil swaps concluded in order to hedge price risks from purchase and sales contracts for natural gas to the completion of the asset swap with Gazprom. These contracts had variable prices and the price formula was coupled with the oil price.

The planned transactions and their effect on earnings occur in the year following the balance sheet date. In 2015, effective changes in the fair value of hedging instruments of €35 million (2014: minus €322 million) was recognized in the equity of the shareholders of BASF SE. In 2015, effective changes in the fair value of hedging instruments of €174 million were derecognized from the equity of shareholders of BASF SE and recorded as an expense in cost of sales. In 2014, there was an expense of €19 million in this regard. The ineffective part in the change in value of the hedge amounted to minus €2 million in 2015 and minus €4 million in 2014. This amount was reported in the income statement in cost of sales, in other operating income and in other operating expenses.

BASF used cash flow hedge accounting for derivatives used to hedge foreign currency risks from gas purchase and sales contracts to the completion of the asset swap with Gazprom. In 2015 up to the completion date, the effective change in values of the hedges was minus €150 million (2014: minus €110 million), which was recognized in the equity of the shareholders of BASF SE. There were no ineffective parts. The amounts derecognized from the equity of shareholders of BASF SE increased cost of sales by €161 million to the completion date (2014: €101 million).

BASF also uses cash flow hedge accounting for some foreign currency derivatives to hedge planned sales denominated in U.S. dollars. The impact on earnings from the underlying transactions will occur in 2016. In 2015, the effective change in values of the hedges was minus €23 million (2014: minus €66 million), which was recognized in the equity of the shareholders of BASF SE. A total of €29 million (2014: €37 million) was derecognized from the equity of shareholders of BASF SE and was booked in expenses from foreign currency transactions. The hedge was entirely effective.

The interest rate risk of the floating rate notes issued by BASF SE in 2014 (€300 million variable-rate bond 2014/2017) as well as the floating rate notes issued in 2013 were hedged using interest rate swaps. The bonds and the interest rate swaps were designated in a hedging relationship. In 2015, the effective change in the fair value of the hedging instruments was €3 million (2014: minus €22 million) and was recognized in the equity of the shareholders of BASF SE. There were no ineffective parts.

Furthermore, BASF SE's fixed-rate U.S. private placement of \$1.25 billion, issued in 2013, was converted into euros using currency swaps. This hedge was designated as a cash flow hedge. The hedge was entirely effective. In 2015, the change in values recognized in the equity of the shareholders of BASF SE amounted to €157 million (2014: €38 million). In 2015, €119 million was derecognized from other comprehensive income and recorded as income in the financial result (2014: €110 million income in financial result).

## 28 Leasing

### Leased assets

Property, plant and equipment include those assets which are considered to be economically owned through a finance lease. They primarily concern the following items:

#### Leased assets (in million €)

	December 31, 2015		December 31, 2014	
	Acquisition cost	Net book value	Acquisition cost	Net book value
Land, land rights and buildings	45	25	43	30
Machinery and technical equipment	117	31	118	32
Miscellaneous equipment and fixtures	44	13	44	14
<b>Total</b>	<b>206</b>	<b>69</b>	<b>205</b>	<b>76</b>

#### Liabilities from finance leases (in million €)

	December 31, 2015			December 31, 2014		
	Minimum lease payments	Interest portion	Leasing liability	Minimum lease payments	Interest portion	Leasing liability
Following year 1	28	5	23	26	6	20
Following year 2	21	5	16	24	4	20
Following year 3	16	3	13	18	4	14
Following year 4	11	3	8	13	3	10
Following year 5	10	3	7	10	3	7
More than 5 years	31	13	18	38	15	23
<b>Total</b>	<b>117</b>	<b>32</b>	<b>85</b>	<b>129</b>	<b>35</b>	<b>94</b>

In 2015 and in 2014, no additional lease payments exceeding minimum lease payments due to contractual conditions for finance leases were recognized in the income statement. In 2015 and 2014, leasing liabilities were not offset by any significant future minimum lease payments from subleases.

In addition, BASF is a lessee under operating lease contracts. The lease commitments totaling €1,554 million in 2015 (2014: €1,587 million) are due in the following years:

#### Commitments from operating lease contracts (in million €)

	Nominal value of the future minimum lease payments	
	Dec. 31, 2015	Dec. 31, 2014
Less than 1 year	413	397
1-5 years	784	779
More than 5 years	357	411
<b>Total</b>	<b>1,554</b>	<b>1,587</b>

Future minimum lease payments from subleasing contracts based on existing agreements amounted to €11 million in 2015 (2014: €11 million).

In 2015, minimum lease payments of €474 million (2014: €384 million) were included in income from operations. In 2015, conditional lease payments of €1 million were also included in income from operations (2014: €1 million). Furthermore, €4 million from sublease payments was included in income from operations in 2015 (2014: €4 million).

#### BASF as lessor

BASF acts as a lessor for finance leases to a minor extent only. Receivables on finance leases were €41 million in 2015 (2014: €43 million).

In 2015, claims arising from operating leases amounted to €83 million (2014: €100 million).

#### Future minimum lease payments to BASF from operating lease contracts (in million €)

	Nominal value of the future minimum lease payments	
	Dec. 31, 2015	Dec. 31, 2014
Less than 1 year	17	20
1-5 years	43	51
More than 5 years	23	29
<b>Total</b>	<b>83</b>	<b>100</b>

## 29 Statement of cash flows and capital structure management

### Statement of cash flows

Cash provided by operating activities contained the following payments:

Million €	2015	2014
Income tax payments	1,550	1,231
Interest payments	458	490
Dividends received	219	244

Interest payments comprised interest payments received of €194 million (2014: €187 million) and interest paid of €652 million (2014: €677 million).


Cash provided by operating activities also included €248 million in benefits paid (2014: €47 million), which are covered by a contractual trust arrangement.

Cash used in investing activities included €215 million in payments made for acquisitions (2014: €963 million), especially for the acquisition of a 66% share in a company into which TODA KOGYO CORP., Hiroshima, Japan, contributed its business with cathode materials for lithium-ion batteries, patents and production capacities in Japan. In the previous year, payments had been made for such purchases as shares in producing oil and gas fields as well as exploration licenses from Statoil Petroleum AS, Stavanger, Norway, and Tullow Oil Norge AS, Oslo, Norway.

Payments of €651 million were received for divestitures (2014: €1,336 million) in relation to transactions such as the sale of portions of the pharmaceutical ingredients and services business to Siegfried Holding AG, Zofingen, Switzerland. In the previous year, payments had been received particularly from the sale of the 50% share in Styrolution Holding GmbH, Frankfurt am Main, Germany, to the INEOS Group; this also gave rise to payments received in 2015.

The payments for property, plant and equipment, and intangible assets in the amount of €5,812 million included investments for 2015, to the extent that they already had an effect on cash.

Cash and cash equivalents were not subject to any utilization restrictions, as in the previous year.

 For more information on cash flow from acquisitions and divestitures, see Note 2.4 from page 175 onward

### Capital structure management

The aim of capital structure management is to maintain the financial flexibility needed to further develop BASF's business portfolio and take advantage of strategic opportunities. The objectives of the Company's financing policy are to secure solvency, limit financial risks and optimize the cost of capital.

Capital structure management focuses on meeting the requirements needed to ensure unrestricted access to capital markets and a solid A rating. BASF's capital structure is managed using selected financial ratios, such as dynamic debt ratios, as part of the company's financial planning. The equity of the BASF Group as reported in the balance sheet amounted to €31,545 million as of December 31, 2015 (December 31, 2014: €28,195 million); the equity ratio was 44.5% on December 31, 2015 (December 31, 2014: 39.5%).

BASF prefers to access external financing on the capital markets. A commercial paper program is used for short-term financing, while corporate bonds are used for financing in the medium and long term. These are issued in euros and other currencies with different maturities. The goal is to create a balanced maturity profile and diverse range of investors, and to optimize our debt capital financing conditions.


As a part of risk management, activities in countries with transfer restrictions are continuously monitored. This includes, for example, regular analysis of the macroeconomic and legal environment, shareholders' equity and the business models of the operating units. The chief aim is the reduction of counterparty, transfer and currency risks for the BASF Group.

Currently, BASF has the following ratings:

	Dec. 31, 2015		Dec. 31, 2014	
	Moody's	Standard & Poor's	Moody's	Standard & Poor's
Long-term financial indebtedness	A1	A+	A1	A+
Short-term financial indebtedness	P-1	A-1	P-1	A-1
Outlook	stable	negative	stable	stable

Rating agency Moody's last confirmed their rating of "A1/P-1 outlook stable" on November 4, 2015. Standard & Poor's adjusted the outlook of their "A+/A-1" rating to "negative" on April 10, 2015. This was mainly due to an increase in pension provisions as a result of declining capital market interest rates.

BASF continues to strive for at least a solid A rating, which ensures unrestricted access to financial and capital markets.

 For more information on financing policy and the Statement of Cash Flows, see the Management's Report from page 59 onward

## 30 Share-price-based compensation program and BASF incentive share program

### Share-price-based compensation program

In 2015, BASF continued its share-price-based compensation program known as the long-term incentive (LTI) program for senior executives of the BASF Group. This program has been in place since 1999. Approximately 1,200 senior executives, including the Board of Executive Directors, are currently entitled to participate in this program. This program provides for the granting of virtual options, which are settled in cash when exercised.

Participation in the LTI program is voluntary. In order to take part in the program, a participant must make a personal investment: A participant must hold BASF shares amounting to 10% to 30% of his or her individual variable compensation for a two-year period from the granting of the option (holding period). The number of shares to be held is determined by the amount of variable compensation and the volume-weighted average market price for BASF shares on the first business day after the Annual Shareholders' Meeting, which was €88.72 on May 4, 2015.

The participant receives four option rights per invested share. Each option consists of two parts, right A and right B, which may be exercised if defined thresholds have been met: The threshold of right A is met if the price of the BASF share has increased by more than 30% in comparison with the base price (absolute threshold). The value of right A will be the difference between the market price of BASF shares on the exercise date and the base price; it is limited to 100% of the base price. Right B may be exercised if the cumulative percentage performance of BASF shares exceeds (relative

threshold) the percentage performance of the MSCI World Chemicals Index<sup>SM</sup> (MSCI Chemicals). The value of right B will be the base price of the option multiplied by twice the percentage outperformance of BASF shares compared with the MSCI Chemicals Index on the exercise date. It is limited to the closing price on the date of exercise minus the computed nominal value of BASF shares. Beginning with the 2013 LTI program, right B is only valuable if the price of BASF shares at least corresponds with the base price. The options were granted on July 1, 2015, and may be exercised following a two-year vesting period, between July 1, 2017, and June 30, 2023. During the exercise period, there are certain times (closed periods) during which the options may not be exercised. Each option can only be exercised in full. This means that one of the performance targets must be surpassed. If the other performance target is not surpassed and the option is exercised, the other option right lapses. A participant's maximum gain from exercising an option is limited to five times the original individual investment starting with the 2013 LTI program. The maximum gain from exercising an option is limited to ten times the original individual investment for programs from previous years. Option rights are nontransferable and are forfeited if the option holders no longer work for BASF or have sold part of their individual investment before the expiry of the two-year vesting period. They remain valid in the case of retirement. For the members of the Board of Executive Directors, the long-term orientation of the program is significantly strengthened compared with the conditions applying to the other participants. The members of the Board of Executive Directors are required to participate in the LTI

program with at least 10% of their gross bonus. In view of this binding personal investment (in the form of BASF shares), an extended holding period of four years applies. Members of the Board of Executive Directors may only exercise their options at least four years after they have been granted (vesting period).

The 2008 to 2014 programs were structured in a similar way to the LTI program 2015.

The models used in the valuation of the option plans are based on the arbitrage-free valuation model according to Black-Scholes. The fair values of the options are determined using the binomial model.

#### Fair value of options and parameters used as of December 31, 2015

		LTI program of the year	
		2015	2014
Fair value	€	22.72	20.03
Dividend yield	%	3.96	3.96
Risk-free interest rate	%	0.35	0.20
Volatility BASF share	%	29.11	25.41
Volatility MSCI Chemicals	%	19.92	15.90
Correlation BASF share price: MSCI Chemicals	%	77.88	73.58

As of December 31, 2015, the fair values and the valuation parameters relate to the LTI programs 2015 and 2014. The fair value calculation was based on the assumption that options will be exercised in a manner dependent on their potential gains. For the programs from preceding years, corresponding fair values were computed and valuation parameters were used.

Volatility was determined on the basis of the monthly closing prices over a historical period corresponding to the remaining term of the options.

The number of options granted amounted to 1,807,532 in 2015 (2014: 1,870,440).

As a result of a resolution by the Board of Executive Directors in 2002 to settle options in cash, options outstanding from the programs 2008 to 2015 were valued with the fair value as of the balance sheet date December 31, 2015. A proportionate provision is recorded for programs in the vesting period. The LTI provision increased from €207 million as of December 31, 2014, to €222 million as of December 31, 2015, due to a higher number of outstanding options. The utilization of provisions amounted to €34 million in 2015 (2014: €106 million). Expenses arising from additions to the provision amounted to €49 million in 2015. The previous year had included income of €54 million.

The total intrinsic value of exercisable options amounted to €34 million as of December 31, 2015, and €41 million as of December 31, 2014.

#### BASF incentive share program

All employees are entitled to participate in the “*plus*” incentive share program, with the exception of those entitled to participate in the LTI program. The “*plus*” incentive share program was introduced in 1999 and is currently offered in Germany, other European countries and Mexico. Each participant must make an individual investment in BASF shares from his or her variable compensation. For every ten BASF shares purchased in the program, a participant receives one BASF share at no cost after one, three, five, seven and ten years of holding the BASF shares. As a rule, the first and second block of ten shares entitles the participant to receive one BASF share at no extra cost in each of the next ten years.

The right to receive free BASF shares lapses if a participant sells the individual investment in BASF shares, if the participant stops working for the Company or one year after retirement. The number of free shares to be granted has developed as follows:

#### Number of free shares to be granted

	2015	2014
<b>As of January 1</b>	<b>2,905,048</b>	<b>2,908,076</b>
Newly acquired entitlements	533,825	589,220
Bonus shares issued	(509,168)	(515,143)
Lapsed entitlements	(100,184)	(77,105)
<b>As of December 31</b>	<b>2,829,521</b>	<b>2,905,048</b>

The free shares to be provided by the Company are measured at the fair value on the grant date. Fair value is determined on the basis of the stock price of BASF shares, taking into account the present value of dividends, which are not paid during the term of the program. The weighted-average fair value on the grant date amounted to €71.55 for the 2015 program, and €64.73 for the 2014 program.

The fair value of the free shares to be granted is recognized as an expense with a corresponding increase in capital surplus over the term of the program.

Personnel expenses of €27 million were recorded in 2015 for the BASF incentive share program “*plus*” (2014: €26 million).

### 31 Compensation for the Board of Executive Directors and Supervisory Board

Million €	2015	2014
Performance-related and not performance-related cash compensation for the Board of Executive Directors	18.4	21.5
Fair value of options granted to the Board of Executive Directors in the fiscal year as of grant date	4.3	6.0
<b>Total compensation for the Board of Executive Directors</b>	<b>22.7</b>	<b>27.5</b>
Service costs for members of the Board of Executive Directors	3.8	4.2
Compensation for the Supervisory Board	3.0	3.0
Total compensation for former members of the Board of Executive Directors and their surviving dependents	10.4	6.5
Pension provisions for former members of the Board of Executive Directors and their surviving dependents	126.5	143.5
Guarantees assumed for members of the Board of Executive Directors and the Supervisory Board	–	–

Performance-related compensation for the Board of Executive Directors is based on the return on assets, as well as the performance of the entire Board. Return on assets corresponds to earnings before taxes plus borrowing costs as a percentage of average assets.

The members of the Board of Executive Directors were granted 173,064 options under the long-term incentive (LTI) program in 2015.

The market valuation of the options of active and former members of the Board resulted in expenses of €6.6 million in 2015. In 2014, the market valuation of the options resulted in income of €3.7 million.

For more information on the compensation of members of the Board of Executive Directors, see the “Compensation Report” from page 140 onward

For more information on the members of the Supervisory Board and Board of Executive Directors, including their memberships on other boards, see page 138 onward

### 32 Related-party transactions

A related party is a natural person or legal entity which can exert influence on the BASF Group or over which the BASF Group exercises control or joint control or a significant influence. In particular, this comprises nonconsolidated subsidiaries, joint ventures and associated companies.

The following tables show the volume of business with related parties that are included at amortized cost or accounted for using the equity method.

#### Sales to related parties (in million €)

	2015	2014
Nonconsolidated subsidiaries	389	504
Joint ventures	378	577
Associated companies	370	1,991

#### Trade accounts receivable from / trade accounts payable to related parties (in million €)

	Accounts receivable, trade		Accounts payable, trade	
	December 31, 2015	December 31, 2014	December 31, 2015	December 31, 2014
Nonconsolidated subsidiaries	139	141	60	62
Joint ventures	71	145	54	238
Associated companies	34	88	44	50

#### Other receivables and liabilities with related parties (in million €)

	Other receivables		Other liabilities	
	December 31, 2015	December 31, 2014	December 31, 2015	December 31, 2014
Nonconsolidated subsidiaries	161	204	180	120
Joint ventures	229	160	120	86
Associated companies	517	641	203	178



Sales and trade accounts receivable from and trade accounts payable to related parties mainly included business with own products and merchandise, agency and licensing businesses, and other operating business.

Other receivables and liabilities primarily arose from financing activities, outstanding dividend payments, profit-and-loss transfer agreements and other finance-related and operating activities and events.

The decline of €1,621 million in sales to associated companies in 2015 was mainly due to the fact that transactions with Styrolution Group companies were to be classified as transactions with associated companies only until the sale of Styrolution in November 2014.

The outstanding balances toward related parties were generally not secured and settled in cash. As in the previous year, there were no significant valuation allowances in 2015 for trade accounts receivable from related parties. Valuation allowances of €17 million were recognized as an expense for other receivables from nonconsolidated subsidiaries. The balance of valuation allowances for other receivables from nonconsolidated subsidiaries therefore rose from €22 million as of December 31, 2014, to €39 million as of December 31, 2015. In 2014, there had been no material expenses from valuation allowances for other receivables from related parties.

There were obligations from guarantees and other financial obligations at BASF in favor of nonconsolidated subsidiaries in the amount of €45 million in 2015 (2014: €8 million) and in favor of associated companies in the amount of €37 million in 2015 (2014: €27 million).

On December 31, 2015, obligations arising from purchase contracts with associated companies amounted to €29 million. There were no material obligations arising from purchase contracts with joint ventures on December 31, 2015. On December 31, 2014, purchase obligations with joint ventures arising from natural gas purchasing contracts amounted to €32,561 million. Their discontinuation is attributable to the disposal of Wintershall Erdgas Handelshaus GmbH & Co. KG, based in Kassel, Germany, which occurred on September 30, 2015, as part of the asset swap with Gazprom.

Effective December 31, 2015, the present value of the outstanding minimum rental payments for an office building including parking area payable by BASF SE to BASF Pensionskasse VVaG for the nonterminable basic rental period to 2029 amounted to €60 million.

There were no reportable related party transactions with members of the Board of Executive Directors or the Supervisory Board and their related parties in 2015.

For more information on subsidiaries, joint ventures and associated companies, see the "List of Shares Held of the BASF Group 2015" on page 179

For more information on defined benefit plans that share risks between the Group companies (including nonconsolidated subsidiaries), see "Provisions for pensions and similar obligations" from page 199 onward

For more information on the Board of Executive Directors and the Supervisory Board, see Management and Supervisory Boards and Compensation Report from page 138 onward

### 33 Services provided by the external auditor

BASF Group companies have used the following services from KPMG:

Million €	2015	2014
Annual audit	21.0	19.2
Thereof domestic	7.2	7.3
Audit-related services	0.4	0.4
Thereof domestic	0.2	0.1
Tax consultation services	0.1	0.2
Thereof domestic	–	0.1
Other services	0.7	0.6
Thereof domestic	0.7	0.2
<b>Total</b>	<b>22.2</b>	<b>20.4</b>

The line item annual audit related to expenses for the audit of the Consolidated Financial Statements of the BASF Group as well as the legally required financial statements of

BASF SE and its consolidated subsidiary companies and joint operations.

## 34 Declaration of Conformity with the German Corporate Governance Code

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### Declaration pursuant to Section 161 AktG (Stock Corporation Act)

The annual Declaration of Conformity with the German Corporate Governance Code according to Section 161 of the

German Stock Corporation Act was signed by the Board of Executive Directors and the Supervisory Board of BASF SE in December 2015, and is published online.

 For more information, see [basf.com/en/governance](http://basf.com/en/governance)

## 35 Nonadjusting events after the reporting period

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On February 17, 2016, BASF announced that a general agreement had been reached with AkzoNobel on the sale of the Coatings division's industrial coatings business for €475 million. The transaction would include technologies, patents and trademarks, as well as the transfer of two production sites in

England and in South Africa. It is subject to consultation with employee representatives and certain regulatory approvals. At BASF, the industrial coatings business generated around €300 million in sales in 2015. BASF and AkzoNobel intend to complete the transaction by the end of 2016.

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## Supplementary Information on the Oil & Gas Segment (Unaudited)

The following provides supplementary information on the Exploration & Production business sector of the Oil & Gas segment. In the absence of detailed disclosure rules in this area under IFRS, the Group has elected to disclose the following information in accordance with SFAS 69 (Disclosure of Oil and Gas Producing Activities) and the Securities and Exchange Commission. In order to present economically meaningful reporting on the cooperation with Gazprom in the Yuzhno Russkoye and Achimgaz projects in Russia, several modifications have been made to SFAS 69. BASF has a total interest of 35% in the economic rewards of the Yuzhno Russkoye field through Severneftegazprom (SNG), the company which holds the production license. SNG is accounted for using the equity method. Marketing of the natural gas is carried out by a separate, fully consolidated company. For the Achimgaz project, in which BASF has an interest of 50%, full field development was started after the successful completion of the pilot phase in 2011.

In the course of the asset swap with Gazprom completed in 2015, BASF received an economic share of 25.01% in two additional blocks of the Achimov formation of the Urengoy field in western Siberia. In return, Gazprom received the entire gas trading and storage business – which was previously jointly operated – as well as a share of 50% in Wintershall Noordzee B.V.

In the following overviews, BASF's stake in both projects is included under "Russia." In addition, the values for SNG, which is accounted for using the equity method, are presented separately.

As a result of the application of IFRS 10/11, the German Wintershall subsidiary with production and exploration rights in the Libyan onshore concessions 96 and 97, in which BASF has an interest of 51%, and Wintershall Noordzee B.V., are accounted for using the equity method as per IAS 28. All fully consolidated subsidiaries are included with 100%.

The following table provides an overview of the most important differences between the information given for the Exploration & Production business sector in the Consolidated Financial Statement of the BASF Group and the supplemental information for the Oil & Gas segment.

	BASF reporting	Supplementary information on Oil & Gas
Other activities in Exploration & Production (e.g., trading business and joint venture services)	included	not included
Companies accounted for using the equity method (Severneftegazprom, Wologodminoil, Wintershall AG and Wintershall Noordzee B.V.)	equity-accounted income included in EBIT	included on a proportional basis
Corporate overhead costs and financing costs	included	not included

The regions include the following countries with operating activities:

Region	Exploration & Production	Exploration
Russia	Russia	
Rest of Europe	United Kingdom, the Netherlands, Norway	Denmark
North Africa / Middle East	Libya	Abu Dhabi
South America	Argentina	Chile

Statistical information on the concession areas or the number of wells is not given due to its limited informative value.

### Oil and gas reserves

Proven oil and gas reserves are the volumes of crude oil, natural gas and condensate that, according to the geological, engineering and economic conditions prevailing at the balance sheet date, can be produced in future years. Accordingly, reserve estimates based on this data could be materially different from the volumes that are ultimately recovered. To reduce uncertainties, Wintershall works together with independent, internationally recognized reserve auditors to perform recurring reserves audits of its major crude oil and natural gas fields.

The tables on the following pages show the company's estimated proven and proven developed reserves as of December 31, 2014, and December 31, 2015, as well as changes attributable to production or other factors.

**Oil 2015**

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
<b>Proven developed and undeveloped oil reserves as of January 1, in million barrels (MMbbl)</b>	<b>53</b>	<b>78</b>	<b>183</b>	<b>103</b>	<b>10</b>	<b>427</b>
Revisions and other changes	(5)	17	23	(3)	1	33
Extensions and discoveries	–	65	–	–	–	65
Purchase/sale of reserves	–	–	–	–	–	–
Production	6	16	13	4	2	41
<b>Proven reserves as of December 31</b>	<b>42</b>	<b>144</b>	<b>193</b>	<b>96</b>	<b>9</b>	<b>484</b>
Thereof equity-accounted companies	–	1	4	91	–	96
<b>Proven reserves excluding equity-accounted companies</b>	<b>42</b>	<b>143</b>	<b>189</b>	<b>5</b>	<b>9</b>	<b>388</b>
Proven developed reserves as of December 31	36	62	141	83	8	330

**Gas 2015**

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
<b>Proven developed and undeveloped gas reserves as of January 1, in billion standard cubic feet (BSCF)<sup>1</sup></b>	<b>146</b>	<b>668</b>	<b>5,412</b>	<b>61</b>	<b>887</b>	<b>7,174</b>
Revisions and other changes	7	100	244	(1)	176	526
Extensions and discoveries	–	31	–	–	–	31
Purchase/sale of reserves	–	(45)	–	–	–	(45)
Production	21	96	393	–	122	632
<b>Proven reserves as of December 31</b>	<b>132</b>	<b>658</b>	<b>5,263</b>	<b>60</b>	<b>941</b>	<b>7,054</b>
Thereof equity-accounted companies	–	54	3,091	59	–	3,204
<b>Proven reserves excluding equity-accounted companies</b>	<b>132</b>	<b>604</b>	<b>2,172</b>	<b>1</b>	<b>941</b>	<b>3,850</b>
Proven developed reserves as of December 31	102	272	3,746	52	712	4,884

<sup>1</sup> Natural gas can be converted with a factor of 5.6 BSCF per MMBOE (million barrels of oil equivalent).



**Oil 2014**

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
<b>Proven developed and undeveloped oil reserves as of January 1, in million barrels (MMbbl)</b>	<b>57</b>	<b>43</b>	<b>89</b>	<b>117</b>	<b>11</b>	<b>317</b>
Revisions and other changes	3	29	103	(10)	1	126
Extensions and discoveries	–	–	–	–	–	–
Purchase/sale of reserves	–	15	–	–	–	15
Production	7	9	9	4	2	31
<b>Proven reserves as of December 31</b>	<b>53</b>	<b>78</b>	<b>183</b>	<b>103</b>	<b>10</b>	<b>427</b>
Thereof equity-accounted companies	–	–	8	93	–	101
<b>Proven reserves excluding equity-accounted companies</b>	<b>53</b>	<b>78</b>	<b>175</b>	<b>10</b>	<b>10</b>	<b>326</b>
Proven developed reserves as of December 31	43	42	112	89	7	293

**Gas 2014**

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
<b>Proven developed and undeveloped gas reserves as of January 1, in billion standard cubic feet (BSCF)<sup>1</sup></b>	<b>208</b>	<b>334</b>	<b>4,773</b>	<b>68</b>	<b>1,009</b>	<b>6,392</b>
Revisions and other changes	(38)	38	1,004	(7)	5	1,002
Extensions and discoveries	–	–	–	–	–	–
Purchase/sale of reserves	–	370	–	–	–	370
Production	24	74	365	–	127	590
<b>Proven reserves as of December 31</b>	<b>146</b>	<b>668</b>	<b>5,412</b>	<b>61</b>	<b>887</b>	<b>7,174</b>
Thereof equity-accounted companies	–	–	3,350	61	–	3,411
<b>Proven reserves excluding equity-accounted companies</b>	<b>146</b>	<b>668</b>	<b>2,062</b>	<b>–</b>	<b>887</b>	<b>3,763</b>
Proven developed reserves as of December 31	115	350	4,435	53	505	5,458

<sup>1</sup> Natural gas can be converted with a factor of 5.6 BSCF per MMBOE (million barrels of oil equivalent).

## Operating income from oil and gas-producing activities

Operating income represents only those revenues and expenses directly associated with oil and gas production. These amounts do not include financing costs (such as interest expenses) or corporate overhead costs and therefore do

not correspond with the contributions to the Oil & Gas segment. The deviations in sales compared with segment reporting are the result of merchandise and service transactions not shown here, as well as the proportional inclusion of companies accounted for using the equity method in the IFRS-based Financial Statements. Estimated income taxes were computed using local applicable income tax rates.

### 2015 (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
Sales crude oil (including condensate and LPG)	250	574	168	150	115	1,257
Sales natural gas	100	585	644	–	322	1,651
Local duties (royalties, export, etc.)	55	2	125	6	87	275
<b>Net revenue (less duties)</b>	<b>295</b>	<b>1,157</b>	<b>687</b>	<b>144</b>	<b>350</b>	<b>2,633</b>
Production costs	122	345	60	63	127	717
Exploration expenses and technology	8	194	6	37	16	261
Depreciation, amortization and impairment	99	990	40	114	72	1,315
Other	10	(313)	32	2	(98)	(367)
<b>Income before taxes</b>	<b>56</b>	<b>(59)</b>	<b>549</b>	<b>(72)</b>	<b>233</b>	<b>707</b>
Income taxes	16	17	101	29	83	246
<b>Operating income after taxes</b>	<b>40</b>	<b>(76)</b>	<b>448</b>	<b>(101)</b>	<b>150</b>	<b>461</b>
Equity-accounted income	–	(3)	89	5	–	91
<b>Income after taxes excl. equity-accounted income</b>	<b>40</b>	<b>(73)</b>	<b>359</b>	<b>(106)</b>	<b>150</b>	<b>370</b>

### 2014 (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
Sales crude oil (including condensate and LPG)	419	519	194	249	114	1,495
Sales natural gas	107	468	772	–	277	1,624
Local duties (royalties, export, etc.)	90	2	167	4	79	342
<b>Net revenue (less duties)</b>	<b>436</b>	<b>985</b>	<b>799</b>	<b>245</b>	<b>312</b>	<b>2,777</b>
Production costs	131	277	71	58	105	642
Exploration expenses and technology	9	119	3	44	15	190
Depreciation, amortization and impairment	109	439	38	106	56	748
Other	10	(356)	61	12	(61)	(334)
<b>Income before taxes</b>	<b>177</b>	<b>506</b>	<b>626</b>	<b>25</b>	<b>197</b>	<b>1,531</b>
Income taxes	59	200	122	122	70	573
<b>Operating income after taxes</b>	<b>118</b>	<b>306</b>	<b>504</b>	<b>(97)</b>	<b>127</b>	<b>958</b>
Equity-accounted income	–	–	38	2	–	40
<b>Income after taxes excl. equity-accounted income</b>	<b>118</b>	<b>306</b>	<b>466</b>	<b>(99)</b>	<b>127</b>	<b>918</b>

## Period expenditures for acquisition, exploration and development of oil and gas deposits

Period expenditures include all amounts incurred in connection with the acquisition, exploration or development of oil and gas deposits, regardless of whether these were capitalized or expensed.

2015 (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
Acquisition expenditures	–	41	779	–	–	820
Exploration and technology expenditures	12	230	16	54	79	391
Development expenditures	59	912	143	8	330	1,452
<b>Total expenditures</b>	<b>71</b>	<b>1,183</b>	<b>938</b>	<b>62</b>	<b>409</b>	<b>2,663</b>

2014 (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
Acquisition expenditures	–	957	–	–	–	957
Exploration and technology expenditures	14	174	17	70	31	306
Development expenditures	93	571	184	20	207	1,075
<b>Total expenditures</b>	<b>107</b>	<b>1,702</b>	<b>201</b>	<b>90</b>	<b>238</b>	<b>2,338</b>

## Capitalized costs relating to oil and gas producing activities

Capitalized costs represent total expenditures on proven and unproven oil and gas deposits with related accumulated depreciation and amortization.

2015 (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
Proven oil and gas reserves	939	5,575	1,878	876	1,556	10,824
Unproven oil and gas reserves	52	653	3	114	267	1,089
Equipment and miscellaneous	800	875	–	25	–	1,700
<b>Total gross assets</b>	<b>1,791</b>	<b>7,103</b>	<b>1,881</b>	<b>1,015</b>	<b>1,823</b>	<b>13,613</b>
Accumulated depreciation, amortization and impairments	1,280	2,517	451	685	910	5,843
<b>Total net assets</b>	<b>511</b>	<b>4,586</b>	<b>1,430</b>	<b>330</b>	<b>913</b>	<b>7,770</b>

2014 (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
Proven oil and gas reserves	897	4,289	1,904	852	1,244	9,186
Unproven oil and gas reserves	48	1,270	7	180	135	1,640
Equipment and miscellaneous	761	1,099	–	25	–	1,885
<b>Total gross assets</b>	<b>1,706</b>	<b>6,658</b>	<b>1,911</b>	<b>1,057</b>	<b>1,379</b>	<b>12,711</b>
Accumulated depreciation, amortization and impairments	1,192	2,486	409	678	837	5,602
<b>Total net assets</b>	<b>514</b>	<b>4,172</b>	<b>1,502</b>	<b>379</b>	<b>542</b>	<b>7,109</b>

## Capitalized exploration drilling: Suspended well costs

Exploratory drilling costs are capitalized until the drilling of the well is complete. If hydrocarbon reserves are found whose commercial development is likely, the costs continue to be capitalized as construction in progress, subject to further appraisal activity that may include the drilling of further wells. All such capitalized costs are subject to technical and commercial review by the management at least once a year to confirm the continued intent to develop or otherwise extract value from the discovery. If this is no longer the case, the costs are written off. If proven reserves of oil or natural gas are determined and development is sanctioned, the relevant expenses are transferred within property, plant and equipment to machinery and technical equipment. Impairments for unsuccessful exploration wells are recognized in exploration expenses.

The following table indicates the changes to the capitalized costs of exploration drilling.

### Capitalized exploration drilling<sup>1</sup> (in million €)

	2015	2014
<b>As of January 1</b>	<b>433</b>	<b>532</b>
Additions to exploration drilling of the year	247	152
Capitalized exploration drilling charged to expense	(145)	(203)
Reclassification to successful exploration drilling	(121)	(48)
Change in scope of consolidation	(108)	–
<b>As of December 31</b>	<b>306</b>	<b>433</b>

<sup>1</sup> Only fully consolidated companies

The following table provides an overview of the capitalization period, amounts capitalized for exploration drilling, and the number of suspended exploration wells.

### Capitalized exploration drilling<sup>1</sup> (in million €)

	2015	2014
<b>Wells for which drilling is not complete</b>	<b>198</b>	<b>135</b>
Wells capitalized less than one year	32	48
Wells capitalized more than one year	76	250
<b>Total</b>	<b>306</b>	<b>433</b>
<b>Number of suspended wells</b>	<b>34</b>	<b>41</b>

<sup>1</sup> Only fully consolidated companies

## Standardized measure of discounted future net cash flows relating to proven oil and gas reserves

The following information was calculated in accordance with the rules of U.S. GAAP standard SFAS 69 and the Securities and Exchange Commission. Based on this, a standardized measure of discounted future net cash flows with the relevant revenues, costs and income tax rates is to be made. The proven reserves are valued at the average price calculated from the prices on the first day of the month. The values thus determined are discounted at a 10% annual discount rate.

The projected values should not be understood as a realistic estimate of future cash flows. Furthermore, the total value of future net cash flows should not be interpreted as representing the current enterprise value.

In the future, expected proven reserves may differ significantly from current estimates. Development and production of the reserves may not occur in the period assumed and actual prices and costs may vary considerably.

BASF's operating decisions and the implementation of its investment projects are not based on the information presented below, but on a wider range of reserve estimates, as well as on different price and cost assumptions.

Beyond the above considerations, the "standardized measure of future net cash flows" is also not directly comparable with asset balances appearing elsewhere in the Consolidated Financial Statements because any such comparison would require a reconciliation adjustment.

**Standardized measure of discounted future net cash flows 2015** (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
Future revenues	1,861	10,154	7,992	4,245	4,051	28,303
Future production/development costs	1,761	6,593	1,766	1,304	1,359	12,783
Future income taxes	(60)	1,413	1,092	2,494	702	5,641
Future net cash flows, not discounted	160	2,148	5,134	447	1,990	9,879
10% discount rate	(49)	743	2,109	143	639	3,585
<b>Standardized measure of discounted future net cash flows</b>	<b>209</b>	<b>1,405</b>	<b>3,025</b>	<b>304</b>	<b>1,351</b>	<b>6,294</b>
Thereof equity-accounted companies	-	28	686	265	-	979
<b>Total excluding equity-accounted companies</b>	<b>209</b>	<b>1,377</b>	<b>2,339</b>	<b>39</b>	<b>1,351</b>	<b>5,315</b>

**Standardized measure of discounted future net cash flows 2014** (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
Future revenues	3,726	9,521	12,193	6,960	2,461	34,861
Future production/development costs	2,366	5,055	2,766	1,762	1,225	13,174
Future income taxes	273	2,722	1,663	4,564	294	9,516
Future net cash flows, not discounted	1,087	1,744	7,764	634	942	12,171
10% discount rate	353	406	3,409	(289)	264	4,143
<b>Standardized measure of discounted future net cash flows</b>	<b>734</b>	<b>1,338</b>	<b>4,355</b>	<b>923</b>	<b>678</b>	<b>8,028</b>
Thereof equity-accounted companies	-	-	652	656	-	1,308
<b>Total excluding equity-accounted companies</b>	<b>734</b>	<b>1,338</b>	<b>3,703</b>	<b>267</b>	<b>678</b>	<b>6,720</b>

**Summary of changes in standardized measure of discounted future net cash flows 2015** (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
<b>Balance as of January 1</b>	<b>734</b>	<b>1,338</b>	<b>4,355</b>	<b>923</b>	<b>678</b>	<b>8,028</b>
Sales and transfers of oil and gas produced, net of production costs in the current period	(174)	(835)	(631)	(98)	(222)	(1,960)
Net changes in prices and production costs at balance sheet date	(730)	(1,726)	(2,132)	(2,111)	730	(5,969)
Net changes from extensions, discoveries and improved recovery, less related costs	-	50	-	-	-	50
Revisions of previous quantity estimates	43	539	197	(55)	278	1,002
Investments in the period	72	898	133	8	289	1,400
Changes in estimated investments in future periods	(26)	(603)	313	20	(226)	(522)
Purchase/sale of reserves	-	(32)	-	-	-	(32)
Net change in income taxes	206	1,464	295	1,288	(262)	2,991
Accretion of discount	84	312	495	329	86	1,306
Other	-	-	-	-	-	-
<b>Standardized measure of discounted future net cash flows</b>	<b>209</b>	<b>1,405</b>	<b>3,025</b>	<b>304</b>	<b>1,351</b>	<b>6,294</b>
Thereof equity-accounted companies	-	28	686	265	-	979
<b>Total excluding equity-accounted companies</b>	<b>209</b>	<b>1,377</b>	<b>2,339</b>	<b>39</b>	<b>1,351</b>	<b>5,315</b>

**Summary of changes in standardized measure of discounted future net cash flows 2014** (in million €)

	Germany	Rest of Europe	Russia	North Africa, Middle East	South America	Total
<b>Balance as of January 1</b>	<b>1,075</b>	<b>758</b>	<b>4,391</b>	<b>1,086</b>	<b>765</b>	<b>8,075</b>
Sales and transfers of oil and gas produced, net of production costs in the current period	(304)	(718)	(782)	(202)	(207)	(2,213)
Net changes in prices and production costs at balance sheet date	(402)	(751)	(623)	(466)	(245)	(2,487)
Net changes from extensions, discoveries and improved recovery, less related costs	-	-	-	-	-	-
Revisions of previous quantity estimates	106	1,298	1,435	(376)	20	2,483
Investments in the period	97	503	183	13	207	1,003
Changes in estimated investments in future periods	(93)	(262)	(691)	79	(123)	(1,090)
Purchase/sale of reserves	-	923	-	-	-	923
Net change in income taxes	130	(626)	(44)	363	109	(68)
Accretion of discount	127	213	486	426	102	1,354
Other	(2)	-	-	-	50	48
<b>Standardized measure of discounted future net cash flows</b>	<b>734</b>	<b>1,338</b>	<b>4,355</b>	<b>923</b>	<b>678</b>	<b>8,028</b>
Thereof equity-accounted companies	-	-	652	656	-	1,308
<b>Total excluding equity-accounted companies</b>	<b>734</b>	<b>1,338</b>	<b>3,703</b>	<b>267</b>	<b>678</b>	<b>6,720</b>



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# Ten-year summary

Million €	2006	2007	2008	2009	2010	2011	2012 <sup>1</sup>	2013 <sup>2</sup>	2014	2015
<b>Sales and earnings</b>										
Sales	52,610	57,951	62,304	50,693	63,873	73,497	72,129	73,973	74,326	70,449
Income from operations before depreciation and amortization (EBITDA)	9,723	10,225	9,562	7,388	11,131	11,993	10,009	10,432	11,043	10,649
Income from operations (EBIT)	6,750	7,316	6,463	3,677	7,761	8,586	6,742	7,160	7,626	6,248
Income before taxes	6,527	6,935	5,976	3,079	7,373	8,970	5,977	6,600	7,203	5,548
Income before minority interests	3,466	4,325	3,305	1,655	5,074	6,603	5,067	5,113	5,492	4,301
Net income	3,215	4,065	2,912	1,410	4,557	6,188	4,819	4,792	5,155	3,987
<b>Capital expenditures, depreciation and amortization</b>										
Additions to property, plant and equipment and intangible assets	10,039	4,425	3,634	5,972	5,304	3,646	5,263	7,726	7,285	6,013
Thereof property, plant and equipment	4,068	2,564	2,809	4,126	3,294	3,199	4,084	6,428	6,369	5,742
Depreciation and amortization of property, plant and equipment and intangible assets	2,973	2,909	3,099	3,711	3,370	3,407	3,267	3,272	3,417	4,401
Thereof property, plant and equipment	2,482	2,294	2,481	2,614	2,667	2,618	2,594	2,631	2,770	3,600
<b>Number of employees</b>										
At year-end	95,247	95,175	96,924	104,779	109,140	111,141	110,782	112,206	113,292	112,435
Annual average	88,160	94,893	95,885	103,612	104,043	110,403	109,969	111,844	112,644	113,249
<b>Personnel expenses</b>										
	6,210	6,648	6,364	7,107	8,228	8,576	8,963	9,285	9,224	9,982
<b>Research and development expenses</b>										
	1,277	1,380	1,355	1,398	1,492	1,605	1,732	1,849	1,884	1,953
<b>Key data</b>										
Earnings per share <sup>3</sup>	€ 3.19	4.16	3.13	1.54	4.96	6.74	5.25	5.22	5.61	4.34
Cash provided by operating activities <sup>4</sup>	5,940	5,807	5,023	5,693	6,460	7,105	6,602	8,100	6,958	9,446
EBITDA margin	% 18.5	17.6	15.3	14.6	17.4	16.3	13.9	14.1	14.9	15.1
Return on assets	% 17.5	16.4	13.5	7.5	14.7	16.1	11.0	11.5	11.7	8.7
Return on equity after tax	% 19.2	22.4	17.0	8.9	24.6	27.5	19.9	19.2	19.7	14.4
<b>Appropriation of profits</b>										
Net income of BASF SE <sup>5</sup>	€ 1,951	2,267	2,982	2,176	3,737	3,506	2,880	2,826	5,853	2,158
Dividends	1,484	1,831	1,791	1,561	2,021	2,296	2,388	2,480	2,572	2,664
Dividend per share <sup>3</sup>	€ 1.50	1.95	1.95	1.70	2.20	2.50	2.60	2.70	2.80	2.90
<b>Number of shares as of December 31<sup>3,6</sup></b>										
million	999.4	956.4	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5

<sup>1</sup> We have applied International Financial Reporting Standards 10 and 11 as well as International Accounting Standard 19 (revised) since January 1, 2013. Figures for 2012 have been restated; no restatement was made for 2011 and earlier.

<sup>2</sup> Figures for 2013 have been adjusted to reflect the dissolution of the natural gas trading business disposal group.

<sup>3</sup> We conducted a two-for-one stock split in the second quarter of 2008. The previous year's figures for earnings per share, dividend per share and number of shares have been adjusted accordingly for purposes of comparison.

<sup>4</sup> Includes the change in reporting from 2009 onward of the effects of regular extensions of U.S. dollar hedging transactions

<sup>5</sup> Calculated in accordance with German GAAP

<sup>6</sup> After deduction of repurchased shares earmarked for cancellation

**Balance sheet (IFRS)**

Million €	2006	2007	2008	2009	2010	2011	2012 <sup>1</sup>	2013 <sup>2</sup>	2014	2015
Intangible assets	8,922	9,559	9,889	10,449	12,245	11,919	12,193	12,324	12,967	12,537
Property, plant and equipment	14,902	14,215	15,032	16,285	17,241	17,966	16,610	19,229	23,496	25,260
Investments accounted for using the equity method	651	834	1,146	1,340	1,328	1,852	3,459	4,174	3,245	4,436
Other financial assets	1,190	1,952	1,947	1,619	1,953	848	613	643	540	526
Deferred taxes	622	679	930	1,042	1,112	941	1,473	1,006	2,193	1,791
Other receivables and miscellaneous noncurrent assets	612	655	642	946	653	561	911	877	1,498	1,720
<b>Noncurrent assets</b>	<b>26,899</b>	<b>27,894</b>	<b>29,586</b>	<b>31,681</b>	<b>34,532</b>	<b>34,087</b>	<b>35,259</b>	<b>38,253</b>	<b>43,939</b>	<b>46,270</b>
Inventories	6,672	6,578	6,763	6,776	8,688	10,059	9,581	10,160	11,266	9,693
Accounts receivable, trade	8,223	8,561	7,752	7,738	10,167	10,886	9,506	10,233	10,385	9,516
Other receivables and miscellaneous current assets	2,607	2,337	3,948	3,223	3,883	3,781	3,455	3,714	4,032	3,095
Marketable securities	56	51	35	15	16	19	14	17	19	21
Cash and cash equivalents	834	767	2,776	1,835	1,493	2,048	1,647	1,827	1,718	2,241
Assets of disposal groups	–	614	–	–	614	295	3,264	–	–	–
<b>Current assets</b>	<b>18,392</b>	<b>18,908</b>	<b>21,274</b>	<b>19,587</b>	<b>24,861</b>	<b>27,088</b>	<b>27,467</b>	<b>25,951</b>	<b>27,420</b>	<b>24,566</b>
<b>Total assets</b>	<b>45,291</b>	<b>46,802</b>	<b>50,860</b>	<b>51,268</b>	<b>59,393</b>	<b>61,175</b>	<b>62,726</b>	<b>64,204</b>	<b>71,359</b>	<b>70,836</b>
Subscribed capital	1,279	1,224	1,176	1,176	1,176	1,176	1,176	1,176	1,176	1,176
Capital surplus	3,141	3,173	3,241	3,229	3,216	3,203	3,188	3,165	3,143	3,141
Retained earnings	13,302	14,556	13,250	12,916	15,817	19,446	23,708	26,102	28,777	30,120
Other comprehensive income	325	174	(96)	156	1,195	314	(3,461)	(3,400)	(5,482)	(3,521)
Minority interests	531	971	1,151	1,132	1,253	1,246	1,010	630	581	629
<b>Equity</b>	<b>18,578</b>	<b>20,098</b>	<b>18,722</b>	<b>18,609</b>	<b>22,657</b>	<b>25,385</b>	<b>25,621</b>	<b>27,673</b>	<b>28,195</b>	<b>31,545</b>
Provisions for pensions and similar obligations	1,452	1,292	1,712	2,255	2,778	3,189	5,421	3,727	7,313	6,313
Other provisions	3,080	3,015	2,757	3,289	3,352	3,335	2,925	3,226	3,502	3,369
Deferred taxes	1,441	2,060	2,167	2,093	2,467	2,628	2,234	2,894	3,420	3,381
Financial indebtedness	5,788	6,954	8,290	12,444	11,670	9,019	8,704	11,151	11,839	11,123
Other liabilities	972	901	917	898	901	1,142	1,111	1,194	1,197	869
<b>Noncurrent liabilities</b>	<b>12,733</b>	<b>14,222</b>	<b>15,843</b>	<b>20,979</b>	<b>21,168</b>	<b>19,313</b>	<b>20,395</b>	<b>22,192</b>	<b>27,271</b>	<b>25,055</b>
Accounts payable, trade	4,755	3,763	2,734	2,786	4,738	5,121	4,502	5,153	4,861	4,020
Provisions	2,848	2,697	3,043	3,276	3,324	3,210	2,628	2,670	2,844	2,540
Tax liabilities	858	881	860	1,003	1,140	1,038	870	968	1,079	1,082
Financial indebtedness	3,695	3,148	6,224	2,375	3,369	3,985	4,094	3,256	3,545	4,074
Other liabilities	1,824	1,976	3,434	2,240	2,802	3,036	2,623	2,292	3,564	2,520
Liabilities of disposal groups	–	17	–	–	195	87	1,993	–	–	–
<b>Current liabilities</b>	<b>13,980</b>	<b>12,482</b>	<b>16,295</b>	<b>11,680</b>	<b>15,568</b>	<b>16,477</b>	<b>16,710</b>	<b>14,339</b>	<b>15,893</b>	<b>14,236</b>
<b>Total equity and liabilities</b>	<b>45,291</b>	<b>46,802</b>	<b>50,860</b>	<b>51,268</b>	<b>59,393</b>	<b>61,175</b>	<b>62,726</b>	<b>64,204</b>	<b>71,359</b>	<b>70,836</b>

<sup>1</sup> We have applied International Financial Reporting Standards 10 and 11 as well as International Accounting Standard 19 (revised) since January 1, 2013. Figures for 2012 have been restated; no restatement was made for 2011 and earlier.

<sup>2</sup> Figures for 2013 have been adjusted to reflect the dissolution of the natural gas trading business disposal group.

# Trademarks<sup>1</sup>

<b>Acronal</b> <sup>®</sup>	reg. trademark of BASF Group
<b>AgCelence</b> <sup>®</sup>	reg. trademark of BASF Group
<b>BioStacked</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Camet</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Cellasto</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Clearfield</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Creator Space</b> <sup>™</sup>	trademark of BASF Group
<b>Cultivance</b> <sup>®</sup>	reg. trademark of BASF Group
<b>DINCH</b> <sup>®</sup>	reg. trademark of BASF Group
<b>ecovio</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Elastocool</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Elastollan</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Engenia</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Epotal</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Espaço ECO</b> <sup>®</sup> Foundation	reg. trademark of BASF Group
<b>F 500</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Flo Rite</b> <sup>®</sup>	reg. trademark of BASF Group
<b>FSC</b> <sup>®</sup>	reg. trademark of Forest Stewardship Council
<b>Hexamoll</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Initium</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Integral</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Interceptor</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Keropur</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Kixor</b> <sup>®</sup>	reg. trademark of BASF Group

<b>Limus</b> <sup>®</sup>	reg. trademark of BASF Group
<b>LIX</b> <sup>®</sup>	reg. trademark of BASF Group
<b>MasterSeal</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Natuphos</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Nealta</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Paliocrom</b> <sup>®</sup>	reg. trademark of BASF Group
<b>PolyTHF</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Quice</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Responsible Care</b> <sup>®</sup>	reg. trademark of Conseil Européen de l'Industrie Chimique
<b>Seltima</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Slentite</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Sokalan</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Standak</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Subtilex</b> <sup>®</sup>	reg. trademark of BASF Group
<b>Sustainable Solution Steering</b> <sup>®</sup>	reg. trademark of BASF Group
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<sup>1</sup> Trademarks are not registered in all countries.

# Glossary

## A

### Associated companies

These are companies over whose operating and financial policies BASF can exercise significant influence, and which are not subsidiaries, joint ventures or joint operations. In general, this applies to companies in which BASF has an interest of 20% to 50%.

### Audits

Audits are a strategic tool for monitoring and directing standards. During a site or plant audit, clearly defined criteria are used to create a profile on topics such as environment, safety or health.

## B

### Backup line

A backup line is a confirmed line of credit that can be drawn upon in connection with the issue of commercial paper if market liquidity is not sufficient, or for the purpose of general corporate financing. It is one of the instruments BASF uses to ensure it is able to make payments at all times.

### Barrel of oil equivalent (BOE)

A barrel of oil equivalent (BOE) is an international unit of measurement for comparing the energy content of different fuels. It is equal to one barrel of crude oil, or 6,000 cubic feet (169 cubic meters) of natural gas.

### Biotechnology

Biotechnology includes all processes and products that make use of living organisms, such as bacteria and yeasts, or their cellular constituents.

### BDO

BDO stands for 1,4-Butanediol and is a BASF intermediate. BDO and its derivatives are used for producing plastics, polyurethanes, solvents, electronic chemicals and elastic fibers.

## C

### CO<sub>2</sub> equivalents

CO<sub>2</sub> equivalents are units for measuring the impact of greenhouse gas emissions on the greenhouse effect. A factor known as the global warming potential (GWP) shows the impact of the individual gases compared with CO<sub>2</sub> as the reference value.

### Commercial paper program

The commercial paper program is a framework agreement between BASF and banks regarding the issuing of debt obligations on the financial market (commercial paper). The commercial paper is issued under a rolling program for which the terms can be determined individually. This requires a good rating.

### Compliance

Compliance is an important element of corporate governance. It refers to the company's behavior in accordance with laws, guidelines and voluntary codices.

## Consumer goods sector

The consumer goods sector includes, for example, the textiles and leather industry, the electrical industry and domestic appliance manufacturing, as well as the paper industry and the personal care and cleaners sector.

## D

### Dodd-Frank Act

The Dodd-Frank Act issued in 2010 comprises accounting and disclosure obligations for publicly listed U.S. companies regarding the use of certain raw materials that come from the Democratic Republic of Congo or its bordering countries. The companies must prove whether the materials they use are from conflict mines in these areas. The definition of conflict minerals as per the Dodd-Frank Act includes the following materials and their derivatives: Columbite-tantalite (coltan), cassiterite, wolframite and gold.

## E

### EBIT

Earnings before interest and taxes (EBIT): At BASF, EBIT corresponds to income from operations.

### EBIT after cost of capital

EBIT after cost of capital is calculated by deducting the cost of capital from the EBIT of the operating divisions. The cost of capital thereby reflects the shareholders' expectations regarding return (in the form of dividends or share price increases) and interest payable to creditors. If the EBIT after cost of capital has a positive value, we have earned a premium on our cost of capital.

### EBITDA

Earnings before interest, taxes, depreciation and amortization (EBITDA): At BASF, EBITDA corresponds to income from operations before depreciation and amortization (impairments and write-ups).

### EBITDA margin

The EBITDA margin is the margin that we earn on sales from our operating activities before depreciation and amortization. It is calculated as income from operations before depreciation and amortization as a percentage of sales.

### Eco-Efficiency Analysis

The Eco-Efficiency Analysis is a method developed by BASF for assessing the economic and environmental aspects of products and processes. The aim is to compare products with regard to profitability and environmental compatibility.

### Ecosystem services

Companies simultaneously rely on, and have an impact on, ecosystem services, such as the conservation of air, water and soil quality. Biodiversity – or the variety of life forms on our planet – serves as a basis of and indicator for the integrity of ecological systems.



**Enhanced oil recovery (EOR)**

Enhanced oil recovery (EOR) methods, also called tertiary recovery or tertiary production methods, are used to increase the recovery factor from oil reservoirs. Different technologies are employed depending on reservoir conditions; a distinction is generally made between thermal and chemical EOR and miscible gas flooding, which makes use of gases such as carbon dioxide.

**Equity method**

The equity method is used to account for shareholdings in joint ventures and associated companies. Based on the acquisition costs of the shareholding as of the acquisition date, the carrying amount is continuously adjusted to the changes in equity of the company in which the share is held.

**European Water Stewardship (EWS) Standard**

The European Water Stewardship (EWS) Standard enables businesses and agriculture to assess the sustainability of their water management practices. The criteria are water abstraction volumes, water quality, conservation of biodiversity and water governance. The Europe-wide standard came into force at the end of 2011 and was developed by nongovernmental organizations, governments and businesses under the direction of the independent organization European Water Partnership (EWP).

**Exploration**

Exploration refers to the search for mineral resources, such as crude oil or natural gas, in the Earth's crust. The exploration process involves using suitable geophysical methods to find structures that may contain oil and gas, then proving a possible discovery by means of exploratory drilling.

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**F****Field development**

Field development is the term for the installation of production facilities and the drilling of production wells for the commercial exploitation of oil and natural gas deposits.

**Formulation**

Formulation describes the combination of one or more active substances with excipients like emulsifiers, stabilizers and other inactive components in order to improve the applicability and effectiveness of various products, such as cosmetics, pharmaceuticals, agricultural chemicals, paints and coatings.

**Free cash flow**

Free cash flow is cash provided by operating activities less payments related to property, plant and equipment and intangible assets.

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**G****Global Compact**

In the United Nations Global Compact network, nongovernmental organizations, companies, international business and employee representatives, scientists and politicians work on aligning global business with the principles of sustainable development. As a founding member of Global Compact, BASF is committed to upholding the ten principles in the categories human rights, labor relations, environmental protection and corruption. We regularly report on our implementation of the principles.

**Global Product Strategy (GPS)**

The Global Product Strategy aims to establish global product stewardship standards and practices for companies. The program, initiated by the International Council of Chemical Associations, strives to ensure the safe handling of chemicals by reducing existing differences in risk assessment.

**Global Reporting Initiative (GRI)**

The Global Reporting Initiative is a multistakeholder organization. It was established in 1997 with the aim of developing a guideline for companies' and organizations' voluntary reporting on their economic, environmental and social activities. Since 2003, BASF has followed this globally recognized standard in sustainability reporting and is involved in the standard's further development.

**Greenhouse Gas Protocol (GHG Protocol)**

The Greenhouse Gas Protocol, used by companies in different sectors as well as nongovernmental organizations and governments, is a globally recognized standard to quantify and manage greenhouse gas emissions. The reporting standards and recommendations for implementing projects to reduce emissions are jointly developed by companies, nongovernmental organizations and governments under the guidance of the World Resources Institute and the World Business Council for Sustainable Development.

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**H****Health Performance Index (HPI)**

The Health Performance Index is an indicator developed by BASF to provide more detailed insight into our approach to health management. It comprises five components: confirmed occupational diseases, medical emergency drills, first aid, preventive medicine and health promotion.

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**I****IAS**

IAS stands for International Accounting Standards (see also IFRS).

**IFRS**

The International Financial Reporting Standards (until 2001: International Accounting Standards, IAS) are developed and published by the International Accounting Standards Board, headquartered in London, England. The "IAS Regulation" made the application of IFRSs mandatory for listed companies headquartered in the European Union starting in 2005.

**ILO Core Labor Standards**

The ILO Core Labor Standards are set out in a declaration of the International Labor Organization (ILO), comprising eight conventions that set minimum requirements for decent working conditions. BASF has a Group-wide system to monitor employees' and suppliers' adherence to these labor standards.

**ISO 14001**

ISO 14001 is an international standard developed by the International Organization for Standardization (ISO) that determines the general requirements for an environmental management system for voluntary certification.

**ISO 19011**

ISO 19011 is an international standard developed by the International Organization for Standardization (ISO) that determines requirements for audits of quality management and environmental management systems.

**ISO 50001**

ISO 50001 is an international standard developed by the International Organization for Standardization (ISO) that determines the general requirements for an energy management system for voluntary certification.

**IUCN categories of protected areas**

The International Union for Conservation of Nature (IUCN) is an international nongovernmental organization that aims to raise awareness for the protection of species and to contribute to the sustainable use and conservation of resources. IUCN classifies the world's protected areas. Categories I, II and III refer to "Strict Nature Reserve and Wilderness Area," "National Park" and "Natural Monuments or Features," respectively.

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**J****Joint arrangement**

A joint arrangement refers to joint ventures and joint operations, and describes a jointly controlled arrangement of two or more parties. This arrangement exists if decisions about relevant activities require the unanimous consent of all parties sharing control.

**Joint operation**

A joint operation is a joint arrangement in which the parties that share control have direct rights to the assets and liabilities relating to the arrangement. For joint operations, the proportional share of assets, liabilities, income and expenses are reported in the BASF Group Consolidated Financial Statements.

**Joint venture**

A joint venture is a joint arrangement in which the parties that have joint control of a legally independent entity have rights to the net assets of that arrangement. Joint ventures are accounted for using the equity method in the BASF Group Consolidated Financial Statements.

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**L****Long-term incentive program (LTI)**

The long-term incentive program is a share-price-based compensation program for senior executives of the BASF Group and members of the Board of Executive Directors. The program aims to tie a portion of the participants' compensation to the long-term, absolute and relative performance of BASF shares.

**M****Materiality analysis/material aspects**

BASF uses the materiality analysis to gain information from internal and external stakeholders about the significance of sustainability topics. The results, which are grouped into eight material aspects of sustainability, help BASF identify present and future opportunities and risks for its business and develop strategies to address these at an early stage.

**MDI**

MDI stands for diphenylmethane diisocyanate and is one of the most important raw materials for the production of the plastic polyurethane. This plastic is used for applications ranging from the soles of high-tech running shoes and shock absorbers for vehicle engines to insulation for refrigerators and buildings.

**Million British thermal unit (mmBtu)**

The British thermal unit (Btu) is a unit of energy observed in the Anglo-American measuring system. It is used for indicating values such as the energy content gas. One mmBtu (million British thermal units) is equal to approximately 1,003 cubic feet of gas or 28 cubic meters of gas.

**Monitoring system**

Monitoring systems and tools serve to measure and ensure the adherence to standards. One area that is monitored is our voluntary commitments, such as the adherence to human rights and internationally recognized labor standards.

**MSCI World Chemicals Index**

The MSCI World Chemicals Index is a stock index that includes the world's biggest chemical companies. It measures the performance of the companies in the index in their respective national currencies, thus considerably reducing currency effects.

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**N****Nanomaterials**

The International Organization for Standardization defines nanomaterials as materials with one or more external dimensions on a nanoscale or with internal structure or surface structure on a nanoscale. For regulatory purposes, there are additional definitions for nanomaterials worldwide.

**Naphtha**

Naphtha is petroleum that is produced during oil refining. Heavy naphtha is the starting point for gasoline production. Light naphtha is the most important feedstock for steam crackers.

**NM VOC (Nonmethane Volatile Organic Compounds)**

VOCs (volatile organic compounds) are organic substances that are present in the air as gas at low temperatures. These include some hydrocarbons, alcohols, aldehydes and organic acids. NMVOCs are VOCs from which methane is excluded.

**O****OHSAS 18001**

The Occupational Health and Safety Assessment Series (OHSAS) includes the standard OHSAS 18001, which contains a management system for occupational safety. This system can be integrated into an existing quality and environmental protection management system and certified accordingly.

**P****Patent Asset Index**

The Patent Asset Index measures the strength of a company's patent portfolio. It is made up of two factors: (1) portfolio size (the number of worldwide active patent families) and (2) competitive impact, which is the combination of technology relevance and market coverage (weighted by market size).

**Peak sales potential**

The peak sales potential of the crop protection pipeline describes the total peak sales generated and expected for individual products in the pipeline. It comprises innovative active ingredients and system solutions that have been on the market since 2015 or will be launched on the market by 2025. The peak sales potential of individual products corresponds to the highest sales value to be expected from one year of the observation period.

**Propylene oxide (PO)**

Propylene oxide (PO), a very reactive compound, is generated by the oxidation of propylene and is used as basic chemical for further processing in the chemical industry.

**R****Ramsar Site**

Ramsar Sites were defined in the Ramsar Convention of 1971. These are protected Wetlands of International Importance, such as lagoons, moors, lakes, rivers and marshlands.

**REACH**

REACH is a European Union regulatory framework for the registration, evaluation and authorization of chemicals, and will be implemented gradually until 2018. Companies are obligated to collect data on the properties and uses of produced and imported substances and to assess any risks. The European Chemicals Agency reviews the submitted dossiers and, if applicable, requests additional information.

**Renewable resources**

The term renewable resources refers to components from biomass that originate from different sources (plants and microorganisms, for example), and are used for industrial purposes. Renewable resources are used for manufacturing numerous products and for generating electricity and other forms of energy.

**Responsible Care**

Responsible Care refers to a worldwide initiative by the chemical industry to continuously improve its performance in the areas of environmental protection, health and safety.

**Retention**

Profits generated can be used in two ways: distributed to shareholders or kept within the company. The latter is referred to as retention.

**Return on assets**

Return on assets describes the return we make on the average assets employed during the year. It is calculated as income before taxes and minority interests plus interest expenses as a percentage of average assets.

**S****Special items**

Special items describe one-time charges or one-time income that significantly affect the earnings of a segment or the BASF Group. Special items include, for example, charges arising from restructuring measures or earnings from divestitures.

**Spot market (cash market)**

A spot market is a market where an agreed-upon deal, including delivery, acceptance and payment, occurs immediately, as opposed to forward contracts, where the delivery, acceptance and payment occurs at a point in time after the conclusion of the deal.

**Steam cracker**

A steam cracker is a plant in which steam is used to "crack" naphtha (petroleum) or natural gas. The resulting petrochemicals are the raw materials used to produce most of BASF's products.

**Sustainable Solution Steering®**

We use Sustainable Solution Steering® to review and guide our portfolio in terms of sustainability. The four categories – Accelerators, Performers, Transitioners and Challenged – indicate how our products and solutions already comply with sustainability requirements and how we can increase their contribution.

**T****TDI**

TDI stands for toluene diisocyanate and is a raw material for the production of polyurethane. It is used primarily in the automotive industry (for example, in seat cushions and interiors) and the furniture industry (for example, for flexible foams for mattresses or cushioning, or in wood coating).

**TUIS**

TUIS is a German transport accident information and emergency response system jointly operated by around 130 chemical companies. The member companies can be reached by the public authorities at any time and provide assistance over the telephone, expert on-site advice or special technical equipment.

**U****UNESCO protected area**

UNESCO protected areas, or World Heritage Sites, are natural sites of exceptional value. These important habitats can be home to endangered plant and animal species.

**V**

**Value chain**

A value chain describes the successive steps in a production process: from raw materials through various intermediate steps, such as transportation and production, to the finished product.

**Verbund**

In the BASF Verbund (pronounced "fair-boond"), production facilities, energy flow, logistics and infrastructure are intelligently networked with each other in order to increase production yields, save resources and energy, and reduce logistics costs. We also make use of the Verbund principle for more than production, applying it for technologies, knowledge, employees, customers, and partners, as well.

---

**W**

**Water stress areas**

Water stress areas are areas in which water represents a scarce resource, and where people abstract more than 60% of the water available. The most important factors leading to water scarcity are: low precipitation, high temperatures, low air humidity, unfavorable soil properties and high water abstraction rates.

**White biotechnology**

White biotechnology is an area of biotechnology, also called industrial biotechnology, which uses microorganisms and/or enzymes to produce chemical products that are utilized in many levels of the value chain in the chemical industry.

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BASF supports the chemical industry's global Responsible Care initiative.

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