# Management's Report

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## The BASF Group

We are the world's leading chemical company – The Chemical Company. In the BASF Group, around 112,000 employees work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our broad portfolio is arranged into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas.

## **Organization of the BASF Group**

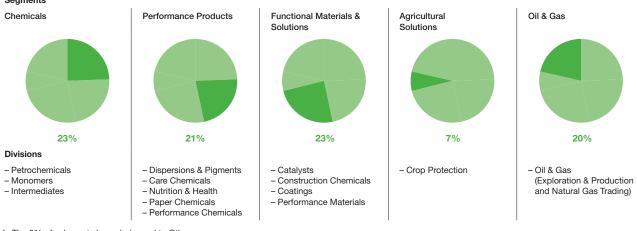
Arranged into five segments, 14 divisions bear operational responsibility and manage our 66 global and regional business units. The divisions develop strategies for our 86 strategic business units and are organized according to sectors or products.

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

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

In line with our "We create chemistry" strategy, we optimized our segment structure as of January 1, 2013, in order to better serve customer industries and further increase our operational and technological excellence. By combining businesses that share the same business model, we can sharpen our focus on the respective success factors.

The Plastics segment was dissolved. Those businesses now belong to the Chemicals and the Functional Materials & Solutions (formerly Functional Solutions) segments. Our innovative plastics, which we develop for key customer industries such as the automotive, construction, electrical and electronics



Segments

**BASF structure as of January 1, 2013** Percentage of total sales<sup>1</sup> in 2013

<sup>1</sup> The 6% of sales not shown belonged to Other.

## **Organization of the BASF Group**

- Five segments contain 14 divisions that manage our global and regional business units
- Regional divisions optimize infrastructure and support operations
- Corporate divisions and departments as well as competence centers provide Group-wide services

## **Optimization of segment structure**

- Sharper focus on customer industries and operational and technological excellence; grouping together businesses that share the same business model
- Plastics segment dissolved
- Creation of new Performance Materials division in Functional Materials & Solutions segment
- Closer alignment of Chemicals segment's three divisions along value chains

sectors, are grouped into the new Performance Materials division.

In the Chemicals segment, we will continue to concentrate on the profitable development of BASF's Production Verbund. We have aligned the segment's divisions even more closely along the value chains. We have expanded the Petrochemicals division to include propylene oxide, thus bringing all important propylene derivatives together with other steam cracker derivatives. In the new Monomers division, we have grouped together most of the product lines from the previous Inorganics division, along with many of the high-volume monomers and basic poly-

#### **BASF** sites

mers from the former Plastics segment, such as MDI and TDI. In the Intermediates division, we primarily concentrate on the C1 (methane) value chain.

The other segments remain unchanged.

## Markets and sites

BASF has companies in more than eighty countries and supplies products to a large number of business partners in nearly every part of the world. In 2013, we achieved 56% of our sales with customers in Europe, of which 35 percentage points were in the Oil & Gas segment. North America accounted for



## **Markets and sites**

- BASF with companies in more than eighty countries
- Six Verbund sites and 376 other production sites worldwide; around 112,000 employees
- Largest BASF Verbund site located in Ludwigshafen, where Verbund concept was created

## Most important research sites

- Europe: Ludwigshafen, Basel, Düsseldorf
- North America: Raleigh, Iselin, Tarrytown
- Asia Pacific: Shanghai, Singapore, Mumbai
- South America: Guaratinguetá

19% of sales; Asia Pacific, 17%; and 8% of sales were generated in South America, Africa, Middle East.

We operate six Verbund sites as well as 376 additional production sites worldwide. Our Verbund site in Ludwigshafen is the largest integrated chemical complex in the world. This was where the Verbund concept was developed and continuously optimized before it was applied to other sites around the world.

#### Verbund

The Verbund system is one of BASF's great strengths. Here, we add value as one company by using our resources efficiently. The Production Verbund, for example, intelligently links production units and energy demand so that heat released by production processes 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 use and higher product yield. This not only saves us raw materials and energy, it also minimizes emissions, lowers logistics costs and makes use of synergies.

Another important part of the Verbund concept is the Technology and Know-How Verbund. Expert knowledge is pooled in our central research areas.

For more on the Verbund concept, see basf.com/verbund\_e

#### **Competitive environment**

BASF occupies one of the top three market positions in around 75% of the business areas in which it is active. Our most important competitors include Akzo Nobel, Bayer, Clariant, Dow Chemical, DuPont, Evonik, Lanxess, 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**

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. Some concentrate on specific business areas: the Wintershall Group companies, for example, focus on oil and gas activities. In the BASF Group Consolidated Financial Statements, 301 companies including BASF SE are fully consolidated. We consolidate 8 joint operations on a proportional basis, and 34 companies are accounted for using the equity method.

G For more, see the Notes to the Consolidated Financial Statements from page 163 onward

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

The compensation report can be found from page 131 onward, and the disclosures required by takeover law in accordance with Section 315(4) of the German Commercial Code from page 125 onward. They form part of the Management's Report audited by the external auditor

## Verbund

- Intelligent plant networking in the Production Verbund
- Efficient use of resources results translates into low emissions and logistics costs
- Technology and Know-how Verbund

## **Corporate legal structure**

- BASF SE as the publicly traded parent company of the BASF Group
- 301 companies consolidated in the Consolidated Financial Statements
- 8 joint operations proportionally considered
- 34 additional enterprises recorded according to equity method

## **Our strategy** Corporate strategy

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, around nine billion people will live on this planet. While the world 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 purpose We create chemistry for a sustainable future

Through research and innovation, we support our customers in nearly every industry in meeting the current and future needs of society. Our products and solutions contribute to conserving resources, ensuring good nutrition and improving quality of life.

Innovations based on chemistry will play a key role in three areas in particular:

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

Our leading position as an integrated global chemical company opens up opportunities for us in all three of these areas. In pursuing them, we 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. We plan to strengthen this sophisticated and profitable system even further. It extends from the Production Verbund and Technology Verbund to the Know-How Verbund, and provides access to all relevant customer industries worldwide. In this way, 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 closely 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, biology, physics, materials sciences and engineering to jointly develop customized products as well as functional materials and system solutions.

## "We create chemistry" strategy

- Our purpose: We create chemistry for a sustainable future
- Innovations based on chemistry will play a key role in three areas in particular: resources, environment and climate; food and nutrition; quality of life
- 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 drive sustainable solutions. In the future, sustainability will serve more than ever before as a starting point for new business opportunities. We therefore value sustainability and innovation as important drivers for 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. That is why we will continue to pursue our goal of building the best team. We offer excellent working conditions and an open leadership culture that fosters mutual trust and respect and encourages high motivation.

For more on innovation, see page 30 onward
 For more on business opportunities with sustainability, see page 27 onward
 For more on the Best Team Strategy, see page 39 onward

## **Our values**

How we act 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 join 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 explore 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.

#### Strategic focus areas

We have defined strategic focus areas within our company: In order to achieve our goals, we are concentrating on the areas of sustainability, innovation, sector orientation, employees, technological and operational excellence. To maximize our potential, we combine our strengths and act as one company to even better use the full range of competencies that make us unique in our industry. We will tap new growth markets by linking our research and development expertise, our operational excellence, our market knowledge and our customer relationships even more closely together. In this way, we promote the long-term success of both BASF and of our customers with our products and solutions. Our employees are fundamental to achieving the goals of our "We create chemistry" strategy.

## **Global standards**

Our standards are aligned with internationally recognized principles and fulfill or exceed existing laws and regulations. We respect and promote

- The 10 principles of the United Nations Global Compact,
- The Universal Declaration of Human Rights and both United Nations covenants on human rights,

## **Our values**

- Creative
- Open
- Responsible
- Entrepreneurial

## Focus areas

- Sustainability
- Innovation
- Industry orientation
- Employees
- Technology and operational excellence

- The ILO's core labor standards and Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration),
- The OECD Guidelines for Multinational Enterprises,
- The Responsible Care Global Charter, and
- The German Corporate Governance Code.

We stipulate rules for our employees with standards that apply Group-wide. We set ourselves ambitious goals with voluntary commitments and review our environmental, health and safety performance using our Responsible Care Management System. Regular audits and a three-pronged monitoring system ensure our compliance with labor and social standards. This system comprises the following instruments:

- External compliance hotlines,
- The annual survey of our Group companies to inspect the prevailing working conditions, and
- Close dialog with our stakeholders, such as employee representatives and international organizations.

Our business partners are expected 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 44
 For more on Responsible Care Management, see page 93
 For more on corporate governance, see page 121 onward
 For more on compliance, see page 127 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's success. In 2020, we aim to generate around €30 billion of our sales and €7 billion of our EBITDA with the help of innovative products that will have been on the market for less than 10 years. This means effective and efficient

research is becoming increasingly important. We defined technology and growth fields with which we can make a decisive contribution to innovative solutions for global challenges and contribute to sustainable development. We are continuing to expand our research and development activities in Asia as well as in North and South America in order to participate in regional innovation processes and gain access to local talent. By 2020, we aim to conduct half of our research and development activities outside of Europe.

 $\square$  For more on innovation, see page 30 onward

#### Business expansion in emerging markets

In the years ahead, we want to grow even more robustly within the emerging economies and expand our leading 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 significant growth in these regions and therefore plan to invest more than a third of our additions to property, plant and equipment there between 2011 and 2020.

In 2013, emerging markets saw substantially higher growth rates than the industrialized countries; however, this increase was not as high as in the previous year. This was largely due to the weak global economy, which dampened export demand. Furthermore, currency appreciation in many emerging markets led to higher import prices. Capital outflow also had a negative impact on investment activity there.

Nevertheless, our business in emerging markets grew once again in 2013: Compared with 2012, we were able to increase the sales of our companies headquartered in these countries by 1% to €16,294 million. Based on customer location, we increased sales (excluding Oil & Gas) in emerging markets yearon-year by 1% to €19,757 million; sales to customers in emerging markets therefore amounted to around 33% of total sales (excluding Oil & Gas) in 2013. By 2020, we aim to expand this proportion to 45%.

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## **Global standards**

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

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

2020	45%	55%
2013	33%	67%
2003	24%	76%

Emerging markets Industrialized countries<sup>2</sup>

 <sup>1</sup> Percentage of BASF Group sales (excluding Oil & Gas) by location of customer
 <sup>2</sup> Comprises EU15, Norway, Switzerland, North America, Japan, Australia, New Zealand

## Goals

In 2011, we set ourselves sales and earnings goals for 2015 and 2020 as part of the "We create chemistry" strategy. The application of International Financial Reporting Standards 10 and 11 as of January 1, 2013, translates into lower reported sales and income from operations for the BASF Group. We have therefore adjusted our sales goals for 2015 and 2020 by €5 billion each and our EBITDA goals by €1 billion each. We reduced the yearly goal for the premium on our cost of capital from €2.5 billion to €2 billion. The goal for earnings per share in 2015 remained unchanged.

Adjustments do not yet include the asset swap with Gazprom that will be completed in 2014 with retroactive finan-

cial effect as of April 1, 2013. The transaction comprises the divestiture of the gas trading and storage business as well as shares in production activities in the North Sea. In 2012, these activities contributed around €10 billion to sales and around €500 million to the EBITDA of the BASF Group. In return, we will receive 25% plus a share in two additional Achimov Formation blocks in Western Siberia.

Our goals are based on the assumption that global gross domestic product will grow by an annual average of 3% from 2010 to 2020 and worldwide chemical production by 4% each year. We aim to grow two percentage points faster than global chemical production every year.

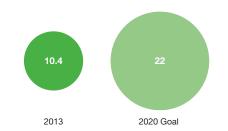
## Growth and profitability

	Annual goals	2015 Goals	2020 Goals	Status at year-end 2013
Sales		Approx. €80 billion	Approx. €110 billion	€74.0 billion
Premium on cost of capital	At least €2.0 billion on average each year			€1.9 billion
EBITDA		Approx. €14 billion	Approx. €22 billion	€10.4 billion
Earnings per share		Around €7.50		€5.27

## Employees

	Long-term goals	Status at year-end 2013	More on
International proportion of senior executives	Increase in the proportion of non-German senior executives (baseline 2003: 30%)	35.0%	Page 42
Senior executives with international experience	Proportion of senior executives with international experience over 80%	81.6%	Page 42
Women in executive positions	Increase in the proportion of female executives worldwide	18.5%	Page 41
Employee development	Establishment of employee development as a responsibility shared by employees and leaders based on relevant processes and tools	The project has been implemented for around 40,000 employees worlwide	Page 40





## Senior executives

Proportion of senior executives with international experience (Goal: over 80%)



## Safety, security and health

2020 Goals	Status at year-end 2013	More on
-70%	-61%	Page 94
-80%	-58%	Page 95
>0.9	0.89	Page 95
>99%	56%	Page 97

## Environment

	2020 Goals	Status at year-end 2013	More on
Energy and climate protection			
Improvement of energy efficiency in production processes <sup>1</sup> (baseline 2002)	+35%	+19.8%	Page 100
Greenhouse gas emissions per metric ton of sales product <sup>1</sup> (baseline 2002)	-40%	-34.0%	Page 100
Stop flaring of associated gas released during Wintershall's production of crude oil (2012 goal)	100%	100%	Page 100
Greenhouse gas emissions per amount and distance of transported gas (baseline 2010)	-10%	-9.0%	Page 100
Water			
Emission of organic substances to water <sup>1</sup> (baseline 2002)	-80%	-78.5%	Page 103
Emission of nitrogen to water <sup>1</sup> (baseline 2002)	-80%	-86.8%	Page 103
Emission of heavy metals to water <sup>1</sup> (baseline 2002)	-60%	-64.2%	Page 103
Withdrawal of drinking water for production (baseline 2010)	-50%	-25.3%	Page 103
Introduction of sustainable water management at production sites in water stress areas	100%	11.1%	Page 103
Air			
Emission of air pollutants <sup>1</sup> (baseline 2002)	-70%	-62.2%	Page 105

<sup>1</sup> Excluding oil and gas production

Transportation safety Transportation accidents per 10,000 shipments, baseline 2003 (2020 goal: -70%)

#### Water

Introduction of sustainable water management at production sites in water stress areas (2020 goal: 100%)





## 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 premium on our cost of capital of at least €2 billion on average each year. To ensure BASF's long-term success, we encourage all employees to think and act entrepreneurially along the lines of 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 dayto-day operations and implement these in an effective and efficient manner.

## EBIT after cost of capital

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.

## Calculation of the cost of capital percentage

The cost of capital percentage (weighted average cost of capital, WACC) is determined using the weighted cost of 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 2013, this cost of capital percentage was 11%; it will be at the same level in 2014. Based on this, an EBIT threshold is determined which must then be reached by all the BASF Group's operating units put together in order to earn the cost of capital.

## Value-based management throughout the company

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 return. By contrast, the value contribution of the functional units is evaluated on the basis of effectiveness and efficiency.

All this forms a comprehensive 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 economic development over time. In addition to EBIT before special items, we also report on sales as another main driver for EBIT after cost of capital. BASF's nonfinancial targets are focused more on the long term, and are not used for shortterm steering.

According to our value-based management concept, all employees can make a contribution in their areas of business 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. ()

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

2013	1,872	
2012 (restated)	1,164	
2012	1,534	
2011	2,551	
2010	3,500	
2009	(226)	

Calculation of EBIT after cost of capital (million €)

	2013	2012
EBIT BASF Group	7,273	6,742
- Less EBIT for activities not assigned to the segments <sup>2</sup>	(664)	(215)
– Less cost of capital <sup>3</sup>	6,065	5,793
EBIT after cost of capital	1,872	1,164

The figures for 2009 to 2011 were not restated according to IFRS 10 and 11 (see page 5). The figures for 2012 are shown before and after the restatement.

<sup>&</sup>lt;sup>2</sup> The projected net expense is already provided for by an increase in the cost of capital percentage.

<sup>&</sup>lt;sup>3</sup> In 2012 and 2013, the cost of capital percentage was 11%.

## Sustainability

Sustainability is firmly embedded into our strategy and organization. Sustainability management supports our strategic principle "We drive sustainable solutions" and follows our corporate purpose – "We create chemistry for a sustainable future."

## Strategy

BASF defines sustainability as balancing economic success with social and environmental responsibility. The conflicts of interest involved here challenge us to weigh varying concerns and find the best possible solutions.

We have strategically embedded sustainability into our company as a significant driver for growth. Our sustainability management has three responsibilities: Minimizing risks, taking advantage of business opportunities and establishing relationships with our stakeholders based on trust. We minimize risks by using our materiality analysis to identify relevant issues early on, and through operational excellence in our business processes. We set ourselves globally uniform standards for the environment, safety, security, health protection, product stewardship and compliance, as well as labor and social standards. We conduct internal audits on process and occupational safety as well as environmental and health protection. We review labor and social standards within the framework of a monitoring system. Ecological and social criteria are also relevant for us in the selection of our suppliers.

We take advantage of business opportunities by offering our customers innovative products and solutions that contribute to sustainable development. Our acclaimed instruments for sustainability evaluation are among the methods we employ. For example, we review our product portfolio to identify those products and solutions that contribute to sustainable development. In addition, we ensure that sustainability is integrated into the development and implementation of our business units' strategies and research projects. Furthermore, we have integrated sustainability criteria into our processes for making investment decisions. We systematically evaluate the contribution to sustainability made by expenditures for property, plant and equipment as well as by investments in financial assets on a case-by-case basis.

For more on the organization of our sustainability management, see basf.com/sustainabilitymanagement

For more on our Responsible Care Management System, see page 93
 For more on monitoring labor and social standards, see

page 22 onward and basf.com/labor\_social\_standards

#### Creating value for customers

With our Eco-Efficiency Analysis, we identify critical parameters for improving the ecological and economic balance of our products and processes along the value chain. Our Socio-Eco-Efficiency Analysis, SEEBALANCE<sup>®</sup>, is applied in order to additionally consider social aspects. Our AgBalance<sup>®</sup> method analyzes and evaluates sustainability specifically in agricultural production. With SET – applied sustainability<sup>™</sup>, our customerspecific sustainability initiative for the food and feed industry, we have supported, for example, partners from the American beef industry since 2013. We are helping improve sustainability in meat production – from growing feed to disposing of packaging by the end user.

In 2013, BASF and TÜV SÜD developed the "mass balance method" for the use of renewable feedstock, which allows conventional fossil resources in the current Production Verbund to be replaced by renewable resources. This must take place without changing the formulation or quality of each end product. Depending on the customer's specifications, up to 100% of fossil resources can be replaced for an end product. During its development, we discussed the opportunities offered by this method with customers, associations and authorities in order to involve our stakeholders from an early stage.

 $\square$  For more on the mass balance method, see page 91

## **Responsibilities and standards**

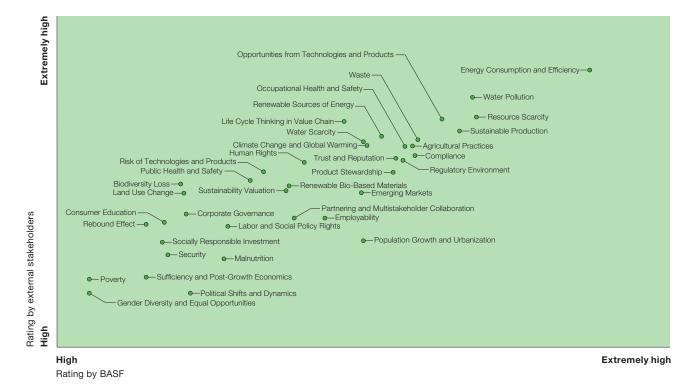
- BASF defines sustainability as balancing economic success with social and environmental responsibility, both today and in the future
- Strategic responsibilities: minimizing risks, taking advantage of business opportunities, establishing trust-based relationships with our stakeholders

## Sustainability evaluation tools

- Using our Eco-Efficiency Analysis, we help customers increase their contribution to sustainable development along the value chain
- "Mass balance method" developed in 2013 allows up to 100% of fossil resources in end products to be replaced by renewable resources, depending on customer specifications

#### Materiality matrix

Relevance rating of sustainability topics for BASF



#### Materiality analysis

The materiality analysis helps us recognize and assess sustainability topics early on: We examine our internal and external stakeholders' expectations and requirements, along with issues that could represent opportunities or risks for our operations now and in the future.

We updated our materiality analysis in 2013. Approximately 350 external stakeholders worldwide, as well as around 90 experts and managers from various functions within the company, provided information on 38 topics potentially relevant for BASF. The participants rated them in terms of their current and future relevance for BASF. The materiality matrix shows how these sustainability topics were ranked. All topics shown in the matrix are relevant both for our stakeholders and for BASF.

Afterward, we discussed the results of the materiality matrix in workshops with participants from different BASF specialist units and identified overarching material aspects. The evaluation focused primarily on how BASF's business is

## Identifying and assessing important topics

- Materiality analysis for ranking sustainability topics updated in 2013
- Issues aggregated into eight material aspects
- Continuous enhancement of our sustainability management based on materiality analysis

impacted by these topics. Material aspects were identified as: employment and employability, energy and climate, food, operational excellence, responsible partnering, products and solutions, resources and ecosystems, and water. We are continuing to identify BASF's influence on these material aspects. We use the materiality analysis to constantly enhance our sustainability management.

For more, see basf.com/materiality

#### Stakeholder engagement

A fixed component of our sustainability management is continuous exchange with our stakeholders. These include our employees, customers, suppliers and shareholders, as well as experts in science, industry, politics, society and media. We provide transparent communication about our activities and take on critical questions. We have a particular responsibility toward our production sites' neighbors, and discuss current issues with them in 84 community advisory panels.

In keeping with our corporate strategy, we integrate sustainability into our day-to-day business and help our employees make their contribution to a sustainable future. We conducted information sessions, online courses, workshops and discussions on sustainability in 2013.

In order to even more closely involve our stakeholders, we established a Stakeholder Advisory Council in 2013 with various international experts from science and society together with BASF's Board of Executive Directors. This regular meeting aims to enhance BASF's approach to sustainability through continuous dialog.

An open exchange with consumers, nongovernmental organizations, policy makers and the public is crucial for the successful introduction of products that are based on new technologies. For example, in 2013 we discussed the results of our

Nano Dialog Forum on transparent communication about nanomaterials with selected political representatives in Brussels, together with delegates from participating environmental and consumer groups, unions and companies. Furthermore, we presented the research results of the NanoGEM project on the safety of nanoparticles and nanocomposite materials to the public in Berlin.

We make information on our social standards and our conditions for production available to our customers via special online platforms.

BASF takes an active part in the United Nations Global Compact: BASF's Chairman of the Board of Executive Directors is a member of the United Nations Global Compact Board. In the worldwide network of Global Compact LEAD, we are involved in the creation of the Post-2015 Development Agenda and discussing possible global sustainability goals together with the other participants. BASF is also active in numerous local Global Compact networks. We joined the local Global Compact network in Kenya in 2013.

BASF does not support political parties. In the United States, our employees have established the BASF Corporation Employees Political Action Committee. It is an independent, federally registered association of employees which collects donations for political purposes and independently decides how these are used.

- For more on stakeholder dialog, see basf.com/dialog\_e
- G For more on supplier management, see page 90
- For more on nanotechnology, see page 98

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#### Material aspects

Eight material aspects have been identified for BASF based on the results of the stakeholder survey and internal workshops



## Innovation

Innovations based on effective and efficient research and development are an important growth engine for BASF. Our employees 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, for they provide a critical contribution beyond known solutions.

Our innovative strength lies in our global team of highly qualified employees with various specializations. In 2013, the number of employees involved in research and development rose to around 10,650 (2012: 10,450). The central research areas Advanced Materials & Systems Research, Biological & Effect Systems Research, Process Research & Chemical Engineering, and BASF Plant Science are our knowledge and competence centers. Together with the development units in our operating divisions as well as BASF New Business and BASF Venture Capital, they form the core of our global Know-How Verbund.

Our global network with more than 600 excellent universities, research institutes and companies is also an important component of this Know-How Verbund. We cooperate with them in many different disciplines in order to achieve our ambitious growth targets. In 2013, we launched the North American Center for Research on Advanced Materials initiative. Together with departments of Harvard University, the Massachusetts Institute of Technology (MIT) and the University of Massachusetts (UMass) Amherst, we aim to develop new materials for the automotive, building and construction, and energy industries.

Our research pipeline included approximately 3,000 projects in 2013. We increased our spending on research and development by  $\in$ 103 million to  $\in$ 1,835 million (2012:  $\in$ 1,732 million). The operating divisions were responsible for 79% of total research and development expenditures; the remaining 21%

was allocated to cross-divisional corporate research, which works on the growth and technology fields. Around one-third of our research and development expenditure is invested in projects for increased energy efficiency and climate protection.

Innovations based on chemistry require market-focused research and development that is sharply focused on the needs of our customers. In order to bring promising research ideas even faster to market, we regularly assess our projects according to a multistep innovation chain process. Software-supported project management as well as continuous exchange of knowledge between customers and the project coordinators within the research and development units are crucial for the efficient development of our project portfolio. BASF New Business plays a particular role in the search for new business areas. It identifies trends and future markets at an early stage, turning attractive topics beyond existing business activities into growth fields.

Another vital factor for our success is a global research and development presence. In 2013, we continued to expand our activities in North America and Asia. In Raleigh, North Carolina, we enlarged our research facilities for crop protection and plant biotechnology. We are exploring electrolytes and electrode materials for high-performance batteries in a new laboratory for battery materials in Amagasaki, Japan. In an affiliated center for application technology, we are developing customer-oriented solutions for battery companies on the Asian market.

The number and quality of our patents attest to our power of innovation and long-term competitiveness. We filed around 1,300 new patents worldwide in 2013. For the fifth time in succession, we headed the rankings in the Patent Asset Index in 2013 – a method which compares patent portfolios industrywide. This once again underscores BASF's power of innovation.

expenditures, see the Ten-Year Summary from page 226 onward

## Innovation

- Approximately 10,650 employees worldwide in research and development
- Research pipeline with around 3,000 projects
- €1,835 million in research and development expenditures in 2013

## Strategic focus

- Strong customer and market orientation
- Forward-looking project portfolio
- Worldwide expansion of research and development centers, especially in Asia and North America
- More efficient innovation management

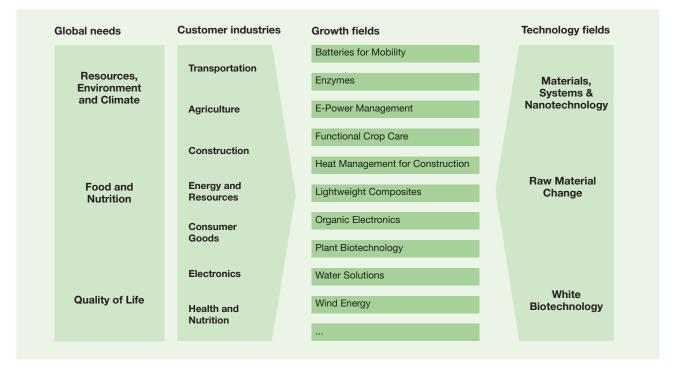
## **Research focus areas**

In order to develop future business areas for BASF, we have defined growth and technology fields for which we expect high sales potential in 2020. The focus of our research is derived from 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." We regularly review the attractiveness of these growth and technology fields for BASF and adjust our portfolio as necessary.

## **Growth fields**

In the **Enzymes** growth field, we conduct research on, for example, enzymes for human and animal nutrition as well as for detergents and cleaners. Enzymes are proteins that act as catalysts to enable or accelerate biological and chemical processes. In 2013, we expanded our technological basis in industrial enzyme technology: With the purchase of the enzyme technology for detergents and cleaners of Henkel AG & Co. KGaA, we

#### Research focus areas: growth and technology fields



## Worldwide expansion of research and development

- Expansion of research facilities for crop protection and plant biotechnology in Research Triangle Park, Raleigh, North Carolina
- New laboratory for exploring electrolytes and electrode materials for high-performance batteries, plus center for application technology in Amagasaki, Japan

## **Global network in science and industry**

- Network with around 600 excellent universities, research institutes and companies
- North American Center for Research on Advanced Materials initiative launched with three top American universities
- Research collaboration with Linde Group and ThyssenKrupp for environmentally friendly production of syngas from carbon dioxide and hydrogen

aim to strengthen BASF's position in these markets. In addition, we entered into a research and licensing agreement with the biotechnology company Dyadic International Inc., through which we can use a technology developed by Dyadic for the enhancement and production of enzymes and other proteins. Furthermore, we are developing a highly effective protease for animal nutrition together with Direvo Industrial Biotechnology GmbH. This enzyme helps animals to better absorb and make use of the nutrients in their diet. Moreover, the acquisition of Verenium Corporation has afforded us access to an enzyme technology platform for human and animal nutrition.

The growing demand for energy around the world requires innovative concepts for the resource-saving and efficient generation, transmission, storage and use of electricity. In our **E-Power Management** growth field, we conduct research on, for example, an innovative method for manufacturing hightemperature superconductors. They transmit electric currents with almost no loss, opening up considerable savings potential. With the acquisition of the technology company Deutsche Nanoschicht GmbH, BASF now has access to a technology that makes the production of high-temperature superconductors significantly more efficient while using far fewer resources. We are working to get this innovative technology ready for the market.

The **Wind Energy** growth field centers on wind power as an alternative energy source. The wind turbines of the future must be manufactured and operated particularly efficiently as well as provide higher maximum power. An interdisciplinary team of researchers, developers and market experts are therefore working on projects such as new and improved materials for rotor blades. At the same time, our attention is focused on systems that combine different materials so skillfully as to create advantages in the design, manufacture and operation of the fans.

#### **Technology fields**

Various cross-sectional technologies provide the technological basis for developing the growth fields. We have grouped these into three technology fields: Materials, Systems & Nanotechnology, Raw Material Change and White Biotechnology.

The challenges of the future require intelligent solutions based on new systems and functional materials, which means that formulation and application expertise are gaining significance. In the **Materials, Systems & Nanotechnology** technology field, for example, BASF researchers have developed a high-performance insulation panel based on polyurethane that requires only half as much space to do the same job as conventional materials. SLENTITE<sup>™</sup> thus offers more freedom of design – for example, in interior insulation. Thanks to its tiny, only 50 to 100-nanometer-sized pores which transfer hardly any heat, SLENTITE<sup>™</sup> provides especially efficient insulation and a pleasant interior temperature.

In the Raw Material Change technology field, we are searching for alternatives and supplements to crude oil as a raw material for the chemical industry. With natural gas, carbon dioxide and renewable resources, we aim to expand the raw material basis of our value chains in the long term. For example, we began a research collaboration in 2013 with the Linde Group and ThyssenKrupp, subsidized by the German Federal Ministry of Education and Research, in order to develop innovative technology for the environmentally friendly production of syngas from carbon dioxide and hydrogen. First, a new high-temperature technology will be used to obtain hydrogen and carbon from natural gas in an especially cost-efficient and environmentally friendly manner. The second step involves using CO2 - from other industrial processes, as well - and hydrogen to make syngas. Syngas is an important basic product for the chemical industry.

In the technology field **White Biotechnology**, we are researching methods and processes for the efficient and resource-saving production of chemical and biochemical products. Fermentation and biocatalysis increasingly represent

## **Research focus areas**

- Growth fields with attractive sales potential in 2020, for example Enzymes, E-Power Management and Wind Energy

Technology fields provide technological foundation:
 Materials, Systems & Nanotechnology: development of new systems and functional materials, as well as nanotechnology;
 Raw Material Change: alternatives and supplements to crude oil as a raw material;
 White Biotechnology: methods and processes for efficient and resource-saving production of chemical and biochemical products

competitive alternatives to chemical processes. For example, our researchers are working on the large-scale synthesis of acrylamide from acrylonitrile using a naturally occurring soil bacterium. Acrylamide is the precursor for polyacrylamide, which is used for applications such as water treatment flocculants. Thanks to lower costs, this biocatalytic process is expected to secure our future competitiveness in this field.

For more on research and development, see basf.com/innovations

## Innovations in the segments – examples

Innovations are an important success factor for BASF's longterm 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. We view sustainability as an opportunity, since we use chemistry to create value for customers and society.

In 2015, we aim to achieve sales of around €10 billion and an EBITDA of around €2.5 billion with new and improved products or applications that will have been on the market for less than five years. In 2020, we aim to increase our sales to around €30 billion and EBITDA to around €7 billion with innovations that will have been on the market for no longer than 10 years.

**Chemicals:** Thanks to a newly developed catalyst and to improvements in the production process, we are now able to save significantly more resources in the production of toluylendiamine. Toluylendiamine is an important intermediate for TDI, which is used in an array of polyurethane-based products such as car seats, upholstered furniture and mattresses.

In addition, we are working on a new method for obtaining short-chain olefins from natural gas. Compared with prior synthesis methods based on natural gas, the new process promises higher energy efficiency and therefore lower carbon emissions. Olefins are used as a basic chemical in the production of numerous products such as solvents or surfactants.

We are constantly developing new application possibilities for our products. For example, we successfully introduced MDI in North America as a binder component for wood-based panels. In comparison with conventional binders, MDI accelerates the production process, decreases emissions and protects the panels from moisture. Our experienced team assists customers in the new binder's introduction and safe handling.

**Performance Products:** We fulfill the varying design requirements of our customers with our unique portfolio of highquality color and effect pigments for the coatings industry. Lumina<sup>™</sup> Royal Blue is the first in a new family of pigments based on a mica substrate and offering the ultimate color intensity and brilliance with its optimized form and particle distribution. In addition to new design options, Lumina<sup>™</sup> Royal Blue allows our customers greater flexibility in their formulations.

With Plantaquat<sup>®</sup> NC, we have developed a new solution for hair conditioning products in the dynamic market for natural cosmetics. Plantaquat<sup>®</sup> NC is a balanced combination of emulsifiers, stabilizers and conditioning agents, effectively protecting hair from breakage, reducing split ends and providing exceptional sensory properties. The product consists entirely of renewable and biodegradable raw materials.

Kollicoat<sup>®</sup> Smartseal 30 D tablet coatings mask unpleasant-tasting ingredients under a protective layer, making medications easier to take. At the same time, the water-repellant polymer film effectively guards the tablet's contents against moisture. Medications not only retain a longer shelf life, they can also be stored more easily. As opposed to products treated with solvents, Kollicoat<sup>®</sup> Smartseal 30 D is a water-based solution, thus making a contribution to the reduction of emissions.

#### Goals for sales and EBITDA with innovations (billion €)

Sales	<b>2020</b> <sup>1</sup>	30
Sales	2015 <sup>2</sup>	10
EBITDA	<b>2020</b> <sup>1</sup>	7
	2015 <sup>2</sup>	2.5

## **Chemicals – Innovations**

- Saving even more resources in production of toluylendiamine
- Development of new production method for short-chain olefins from natural gas
- As a binder component for wood-based panels,
   MDI accelerates production, decreases emissions and protects panels from moisture

#### <sup>1</sup> Pertains to innovations then on the market for less than ten years

<sup>2</sup> Pertains to innovations then on the market for less than five years

In collaboration with the paper manufacturer Sappi, we have developed new paper qualities for flexible packaging. A polymer dispersion-based layer keeps mineral oil and other undesirable substances from migrating from recycled-paper packaging into food. This makes the new types of paper suitable for applications such as packaging for sweets, tea and other dried foods. In addition, we offer extrusion polymers such as Ultramid<sup>®</sup> and ecovio<sup>®</sup> as migration barriers. The German Packaging Award 2013 was granted to the Belgian company Van Genechten for its folding carton with Ultramid<sup>®</sup> as a mineral oil barrier.

Compared with conventional mineral oil-based lubricants, Emgard<sup>®</sup> drive axle lubricants extend drain intervals, enhance fuel efficiency and provide better protection against wear and tear. The secret is in this lubricant's high viscosity index: Its viscosity remains constant over a broad temperature spectrum. Emgard<sup>®</sup> drive axle lubricants are formulated with antiwear additives as well as oxidation and corrosion inhibitors that ensure protection of gears and bearings under a wide range of load conditions.

Functional Materials & Solutions: In the Catalysts division, our focus is on the development of solutions and materials which save resources and can fulfill increasingly strict exhaust regulations. With the innovative FWC<sup>™</sup> four-way conversion catalyst for gasoline engines, we have developed a single-component technology that removes particulate matter as well as carbon monoxide, hydrocarbons and nitrogen oxides from engine exhaust. This helps automobile manufacturers meet stricter emissions regulations, such as Euro 6c. Conventional three-way conversion catalysts require the installation of a separate gasoline particulate filter, which can increase back pressure and takes up more space.

Construction Chemicals aligns its research and development activities with local customers' needs and construction industry trends. MasterPolyheed<sup>®</sup> brand concrete admixtures allow for the excellent processability of concrete with varying raw material quality. This makes MasterPolyheed<sup>®</sup> especially suitable for customers in emerging regions like the Middle East and India. Thanks to our innovative concrete admixture technology based on novel polymers, MasterPolyheed<sup>®</sup> is particularly reliable in the most diverse conditions.

In the Coatings division, we work on developing innovative coating systems and intelligent solutions in order to contribute to our customers' success. Body shops that use the new Glasurit<sup>®</sup> 285-270 Primer Filler Pro, for example, save themselves a layer of coating when refinishing a vehicle. The filler can be applied directly without a prior base coat, taking on the base coat's role as a corrosion protection layer. Painters and body shops therefore save not only an entire step, but also material and nozzle cleaning after applying the base coat.

Among the innovative products and system solutions the Performance Materials division launched on the market in 2013 is Infinergy<sup>®</sup>, the world's first expanded thermoplastic polyurethane (ETPU). Infinergy<sup>®</sup> provides adidas Boost<sup>™</sup> running shoes with unique cushioning and shock absorption properties, helping athletes improve their performance. We also develop innovative solutions for the automotive industry, such as Ultracom<sup>™</sup>. The central component is a fiber material coated with our Ultramid<sup>®</sup> plastic. With an additional plastic for spraying and a comprehensive service offer from BASF's application development, Ultracom<sup>™</sup> provides the best possible combination of weight savings, cost-effectiveness and performance in components for bodywork and chassis.

Agricultural Solutions: Our innovation strategy focuses on developing integrated solutions that help farmers secure and increase their yields. We constantly invest in our development pipeline in order to expand our portfolio both in and beyond conventional crop protection. In 2013, we spent €469 million on research and development in the Crop Protection division, representing around 9% of sales for the segment.

## **Performance Products – Innovations**

- Lumina<sup>™</sup> Royal Blue pigments for ultimate color intensity
- Plantaquat<sup>®</sup> NC for hair conditioners protects against breakage and reduces splitting
- Kollicoat<sup>®</sup> Smartseal 30 D tablet coatings allow for easier ingestion and protect against moisture
- New paper qualities for flexible packaging
- Emgard<sup>®</sup> drive axle lubricants: better fuel efficiency and increased protection from wear and tear

## Functional Materials & Solutions – Innovations

- FWC<sup>™</sup> four-way conversion catalyst also removes particulate matter from gasoline engine exhaust
- MasterPolyheed<sup>®</sup> concrete admixtures: highly processable concrete with raw materials of mixed quality
- New Glasurit<sup>®</sup> primer filler saves a coating layer in automotive refinishing
- Infinergy<sup>®</sup> provides adidas Boost<sup>™</sup> running shoes with unique cushioning and shock absorption

Our innovation pipeline continued to increase in value in 2013. For products launched between 2010 and 2020, we now foresee a peak sales potential of €2,100 million – an increase of €400 million compared with the previous year. This higher amount will be supported by successful product launches in all indications. We increased the peak sales potential for our fungicide Xemium<sup>®</sup> by €200 million to more than €600 million. In addition to Xemium<sup>®</sup>, other new fungicides, insecticides, herbicides and herbicide-tolerant solutions as well as products from the new Functional Crop Care business unit will also contribute significantly. We predict a more than €100 million increase in the peak sales potential for our herbicide Kixor<sup>®</sup> and now expect more than €300 million. In the Functional Crop Care business area, we have identified a potential of €100 million beyond that afforded by the acquired businesses from Becker Underwood.

BASF Plant Science: We work together with multiple biotechnology companies, research institutes and universities worldwide. Together with Monsanto, we develop higher-yielding, more stress-tolerant crops. In 2013, Genuity® DroughtGard® hybrid corn, the first product of this collaboration, was commercially launched on the U.S. market. This drought-tolerant corn is based on corn lines optimized through plant breeding combined with the first approved drought tolerance gene transferred using plant biotechnology. Genuity® DroughtGard® hybrid corn thus contributes to sustainable agriculture in the corn-growing areas of the United States where limited water resources often lead to lower yields.

**Oil & Gas:** Our research and development activities focus on reducing risks in exploration activities and developing technologies for reservoirs with challenging development and production conditions, as well as increasing the recovery factor from reservoirs. High concentrations of hydrogen sulfide in natural gas have often hindered profitable production in the Middle East. For the first time, we are now able to contribute our decades of experience in sour gas production in Germany to this region as we conduct a technical assessment of the Shuweihat sour gas and condensate field in Abu Dhabi together with partners. This is made possible by our innovative and efficient technologies for separating natural gas from acidic components such as hydrogen sulfide or carbon dioxide.

#### Expenditure on research and development by segment

1	Chemicals	10%	6
2	Performance Products	20%	
3	Functional Materials & Solutions	20%	<sup>5</sup> €1,835
4	Agricultural Solutions	26%	million
5	Oil & Gas	3%	4
6	Corporate research, Other	21%	4 3

## Outlook

We constantly evaluate promising new technology and growth fields for future innovations. We aim to keep strengthening our research and development activities in Asia as well as in North and South America. By 2020, we plan to conduct half of our research and development activities outside of Europe in order to gain on-location access to customers and their market knowledge, as well as to talent and innovation centers.

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## **Agricultural Solutions – Innovations**

- €469 million in research and development spending in 2013 (9% of sales)
- Crop protection pipeline with peak sales potential of €2,100 million
- Successful product launches in all indications
- BASF Plant Science: introduction of Genuity®
- DroughtGard<sup>®</sup> drought-tolerant corn in the United States

## Oil & Gas – Innovations

- Focus on risk reduction in exploration activities, increasing recovery factor from reservoirs and developing technologies for reservoirs with challenging conditions
- Innovative technologies enable profitable production of natural gas even with high concentrations of hydrogen sulfide

## Investments and acquisitions

In addition to innovations, investments and acquisitions will make a decisive contribution toward achieving our ambitious growth goals. We are intensifying our capital expenditures in emerging markets. This organic growth is complemented by targeted acquisitions.

For the period between 2011 to 2020, we have planned capital expenditures from €30 billion to €35 billion. We want to invest more than a third of this amount in emerging markets and expand our local presence in order to benefit from the robust growth in these regions. Furthermore, we continue to develop our portfolio through acquisitions that are innovation-driven and promise above-average profitable growth. Both investments as well as acquisitions are prepared by interdisciplinary teams and are assessed using various criteria. In this way, we ensure that economic, environmental and social matters are included in strategic decision-making. By investing in our plants, we also continuously improve the energy efficiency of our production processes.

## Investments and acquisitions 2013 (million €)

	Investments	Acquisitions	Total
Intangible assets	135	1,158	1,293
Thereof goodwill	-	787	787
Property, plant and equipment	4,709	1,511	6,220
Total	4,844	2,669	7,513

#### Investments

We invested €4,709 million in property, plant and equipment in 2013. Total investments therefore exceeded the previous year's level by €731 million. Our investments in 2013 focused on the Oil & Gas, Chemicals, Performance Products and Functional Materials & Solutions segments.

In Ludwigshafen, we are building an integrated TDI facility with a capacity of 300,000 metric tons per year and expanding the plants for its associated precursors. Production is expected to start at the beginning of 2015. TDI is an important basic chemical product that is used in particular for soft polyurethane foams.

The construction of the new MDI plant in Chongqing, China, and acrylic acid and superabsorbent production complex in Camaçari, Brazil, as well as the expansion of our Verbund site in Nanjing, China, are progressing. With these major investments, we are expanding our presence in the growth regions Asia and South America.

To meet growing market demand, we invested in the expansion of production capacity for our F 500<sup>®</sup> fungicide at the Schwarzheide site as well as in the production of an important precursor for the new fungicide Xemium<sup>®</sup> in Ludwigshafen in 2013.

In the Oil & Gas segment, we invested primarily in field development projects in Norway and Russia in 2013.

 $\square$  For more on investments within the segments, see pages 60 to 87

#### Additions to property, plant and equipment by segment in 2013

1	Chemicals	30%
2	Performance Products	17%
3	Functional Materials & Solutions	10%
4	Agricultural Solutions	5%
5	Oil & Gas	36%
6	Other (infrastructure, R&D)	2%



## Additions to property, plant and equipment by region in 2013

Europe	70%
North America	12%
Asia Pacific	11%
South America, Africa, Middle East	7%



## Acquisitions

In 2013, we received €1,511 million worth of tangible fixed assets through acquisitions. Additions to intangible assets including goodwill amounted to €1,158 million.

We boosted our presence in the growth market for enzymes in 2013 through two acquisitions in particular. To strengthen BASF's position as a supplier of important ingredients for the detergents and cleaners industry, we purchased the enzyme technology for detergents and cleaners from Henkel AG & Co. KGaA. The transaction comprised production hosts, various detergent enzymes, and the corresponding intellectual property. Enzymes are essential components in modern detergent and cleaner formulations. The activities have been integrated into the Care Chemicals division.

In addition, we acquired all shares in the San Diego, California-based Verenium Corporation. Verenium Corporation develops and markets high-quality enzymes which, as catalysts, enable and accelerate biological and chemical processes. The business has been allocated to the Performance Products segment as well as to Other.

In addition, we concluded a series of transactions in 2013 that had been announced in the previous year. In January 2013, we acquired Pronova BioPharma ASA, a company headquartered in Lysaker, Norway, which researches, develops and produces highly concentrated omega-3 fatty acids. The purchase price amounted to €526 million. With this acquisition, we aim to take a leading position in the global market for omega-3 fatty acids. Pronova BioPharma's business has been grouped into a global business unit of the Nutrition & Health division, together with our previous activities in this field. We now offer our customers the complete range of omega-3 fatty acids in various concentrations. In March 2013, we completed the acquisition of parts of Ciech Group's TDI business. The acquisition largely comprised intellectual property rights and the customer list. TDI is used primarily in furniture and automotive industry applications. The acquired business has been integrated into the Monomers division.

We concluded the acquisition of assets from Statoil ASA, headquartered in Stavanger, Norway, in July 2013. The transaction included the acquisition of shares in the Brage (32.7%), Vega (30%) and Gjøa (15%) fields. The daily production of Wintershall in Norway thus increased from around 3,000 barrels of oil equivalent (BOE) to just under 40,000 BOE. As part of the transaction, Statoil is receiving a 15% share in the Edvard Grieg development project from Wintershall as well as a financial consideration. The transaction was concluded with retroactive commercial effect as of January 1, 2013. The purchase price amounted to €853 million; the net payment was €588 million.

 For more information on acquisitions, see the Notes to the Consolidated Financial Statements from page 166 onward
 For information on divestitures, see the Notes to the Consolidated Financial Statements from page 169 onward

## Investments

- Increase in total investments compared with 2012
- Intensified investments in emerging markets

## Acquisitions

- Two acquisitions strengthen our presence in growth market for enzymes
- Acquisition of Pronova BioPharma ASA concluded
- Assets acquired from Statoil ASA

## **Business models and customer relations**

BASF's customer portfolio ranges from major global customers and medium-sized regional businesses to local workshops. 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 have optimized our organizational structure and more tightly bundled our products and services. This enables us to even better address the needs of customers from different sectors.

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 manufacture 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 work closely together with customers from 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 enter into close partnerships with customers to develop innovations together which 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.

G For information on customer relations in the Oil & Gas segment, see page 82 onward

## Industry orientation

We serve customers from many different sectors with a 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.

Not all business units can be arranged purely according to industry, however. That is why BASF creates sector-specific "industry teams," such as those for key customer sectors like the automotive, pharmaceutical and packaging industries, or for growth fields like wind energy. They pool expertise, knowledge and contacts across different units, sharpen our understanding of the value chains in customer industries and work on industry-specific solutions that often could not be developed within one operating division alone. For example, as the largest supplier to the furniture industry, BASF has an industry team for furniture. This is where we work together with customers on solutions for more resistant coatings, innovative surfacing materials and new foams for cushions.

The close alignment of our business with our customers' needs is an important component of our "We create chemistry" strategy. We therefore aim to keep systematically and structurally enhancing our industry orientation in the future.

## **Customer relations**

- Classical chemicals business: reliable and cost-effective supply
- Customized products: joint projects to develop products or formulations for a specific industry
- Functionalized materials and solutions: close partnerships to jointly improve customer processes and applications through innovations

## Industry orientation

- Around half of business units geared toward specific industries
- Industry teams pool cross-unit expertise, knowledge and contacts
- Systematic, structured development of our industry orientation as important part of "We create chemistry" strategy

## Working at BASF

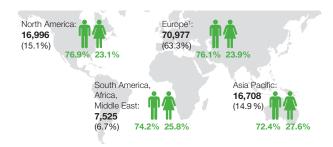
Our employees are fundamental to achieving the goals of our "We create chemistry" strategy. We want to attract talented people, retain them in the company, and support them in their development. To do so, we cultivate a working environment that inspires and connects people. It is founded on inclusive leadership based on mutual trust, respect and dedication to top performance.

#### Strategy

Our Best Team Strategy is derived from our corporate strategy and simultaneously contributes to its implementation. We want to form the best team. To achieve this, we put focus on three strategic directions: excellent people, excellent place to work and excellent leaders. We concentrate on increasing our attractiveness in worldwide labor markets, sharpening our focus on career development, and life-long learning in all regions, as well as supporting and developing our leaders.

#### BASF Group employees by region

(Total: 112,206, thereof 24.5% women, as of December 31, 2013)



Germany: 52,523 (46.8%), thereof women: 23.8% BASF SE: 35,411 (31.6%), thereof women: 21.4% At the end of 2013, BASF had 112,206 employees (2012: 110,782); of these, 3,060 were apprentices<sup>2</sup> (2012: 2,809). The acquisition of Pronova BioPharma ASA and of businesses from Statoil ASA in Norway, as well as of Verenium Corporation in the United States, added to our headcount. Reductions in head-count resulted from, for example, the divestiture of Industrial Water Management France SAS, headquartered in France, and of CONICA Sports Flooring in Switzerland.

#### New hires BASF Group 2013 (as of December 31, 2013)

Europe	3,750	70.8%	29.2%
North America	1,768	73.0%	27.0%
Asia Pacific	1,953	74.0%	26.0%
South America, Africa, Middle East	848	60.5%	39.5%
Total	8,319	71.0%	29.0%

Men Women

## Competition for talent

In the worldwide competition for the best employees and leaders, we want to recruit qualified talent in order to achieve our ambitious growth targets. For example, we offer various internships both locally and abroad. Targeted online activities, such as recruiting videos and direct communication on social networks, help us expand our contact network.

For its activities in helping new graduates and entry-level employees get started on their careers, BASF was selected by engineering students as one of the 50 most attractive employers in the world in a 2013 study conducted by Universum. We were also recognized in Brazil and Chile as an appealing employer for starting a career, in addition to other categories. BASF once again received China's Top Employers certificate, recognizing us as one of the leading employers in the country. The award particularly highlighted working conditions and career development for our employees.

## **Best Team Strategy**

- Excellent people: We attract the right people and create space for their performance and personal development
- Excellent place to work: We cultivate a working environment that inspires and connects people
- Excellent leaders: We foster an inclusive leadership culture with mutual trust, respect and dedication to top performance

## Overview

- 112,206 employees worldwide
- Various awards received worldwide for attractiveness as an employer

In 2013, we educated 50 talented employees in fields such as marketing, research, development, engineering and production with our Grow Graduate program, established in China in 2007. This two-year program offers young people the chance to become familiar with diverse positions in the company after their studies and prepare themselves for their desired careers.

Worldwide, the percentage of employees who left the company voluntarily during their first three years of employment was 1.3% on average. This rate of employee turnover was 0.6% in Europe, 1.5% in North America, 3.6% in Asia Pacific and 1.9% in South America, Africa, Middle East.

## **Vocational training**

As of December 31, 2013, BASF was training 3,060 people in around 60 occupations in 20 countries worldwide. We spent a total of around €93 million on vocational training in 2013 as well as approximately €19 million on the BASF Training Verbund as part of our social commitment. In 2013, 988 apprentices started their vocational training at BASF SE and German Group companies.

We once again strengthened our commitment to vocational training at the Ludwigshafen site and in the BASF Training Verbund in 2013: In total, 1,000 people began their careers, 250 of which as part of the *Start in den Beruf* and *Anlauf zur Ausbildung* career-start programs in cooperation with partners in the region. These programs aim to prepare participants for a subsequent apprenticeship within one year. This comprehensive and individual approach comprises theoretical as well as practical program elements. Examples include support in choosing a profession, and gaining experience in the BASF Training Verbund's partner companies. In this way, the programs contribute to ensuring a sufficient supply of qualified employees for BASF and the Rhine-Neckar Metropolitan Region.

In 2013, 20 Spanish apprentices began their vocational training in Tarragona, Spain, based on the German vocational training model. The theoretical and practical phases will take place in Tarragona and in Ludwigshafen. After the successful completion of their training, we plan to employ these apprentices in production plants at the Ludwigshafen site in 2016.

For more information, see basf.com/apprenticeship

#### BASF Group employees by contract type (total: 112,206)

	December 31, 2013	Thereof women %
Permanent staff	106,769	23.8
Apprentices	3,060	30.7
Temporary staff	2,377	45.2

#### Learning and development

Our employees' individual development is important to us. We want to recognize and promote talent early on, and our life-long learning concept provides the basis for remaining the best team and meeting the various challenges of the market. In development dialogs, our employees and leaders outline the prospects together for individual professional development and determine concrete measures for further training and development. This new format was initiated for around 40,000 employees by the end of 2013. We aim to have all employees familiar with it by 2017. These development dialogs supplement the annual employee dialogs conducted in 99% of BASF Group companies worldwide, which include performance reviews.

Life-long learning and further training are important components of our employee development. We spent around €106 million for this purpose in 2013 (2012: €95 million). Our measures for further training are based on the specific learning needs of our employees. Local and international seminars and

## **Vocational training**

- 3,060 apprentices in 60 occupations worldwide
- Around €93 million spent on vocational training

## Learning and development

- Measures for career development discussed and decided on in development dialogs
- Around €106 million spent on further training

workshops enable the acquisition and exchange of knowledge and promote networking. Each employee spent an average of three days on further training in 2013<sup>1</sup>. A total of more than 107,000 seminar days took place at BASF SE, including at the Learning Center, in 2013.

Trained internal specialists have fostered the career development of BASF SE employees through career orientation since 2012. Since 2013, we have been providing targeted support for selected employees in their part-time studies toward a Bachelor's or Master's degree, counseling them on various career development possibilities.

In addition, we have strengthened our in-plant qualification with shift trainers who promote the continuous professional development of employees in production and technology through individual learning assignments.

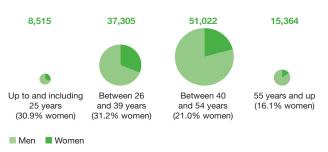
By establishing the Learning Campus, we have created a global platform that will provide our employees with a globally consistent network and further training through special programs in the future. This includes, for example, a worldwide program for newly appointed leaders. Furthermore, we offer a wide and global range of opportunities for self-directed learning via electronic media, independent of time and place.

#### Managing demographic changes

In order to address the impact of demographic change, we create conditions which help to maintain the employability of our personnel at all stages of life and secure the availability of qualified employees. We support our employees and leaders with workshops, health and sports programs, age-appropriate shaping of the workplace and demographic analyses. In 2013, for example, we included the topic "leadership in times of demographic change" in our basic skill enhancement for new leaders.

For more information, see basf.com/demographic\_change

#### BASF Group employee age structure (Total: 112,206, thereof 24.5% women, as of December 31, 2013)



## Inclusion of diversity

In order to address the various needs of our customers and markets, we rely on the best team in all areas and functions around the globe. The inclusion of diversity is an important component of our strategic human resources management. It helps us to continuously improve our team's performance and power of innovation, and increases creativity, motivation and identification with the company. This is why we are developing measures to further promote the appreciation of diversity and its inclusion. Leaders play an important role here. We support them in strengthening diversity and integrating it into day-to-day business. For example, specific goals and measures are developed together with leaders - such as for recognizing and encouraging different kinds of talent. Employees around the world are active as ambassadors of diversity within the company, contributing significantly to an open and appreciative company culture. For its particular commitment to social diversity, BASF received the Top 50 Company for Diversity award in North America from the organization DiversityInc in 2013.

At the end of 2013, the percentage of executive positions in the BASF Group held by women was 18.5% (2012: 17.2%). In a joint initiative with all 30 DAX-listed companies, BASF signed a voluntary commitment in 2011: In Germany, we aim to raise

## Maintaining employability

 Supporting employability and ensuring availability of qualified employees with workshops, health and sports programs, workplace optimization and demographic analyses

## Diversity

- Top 50 Company for Diversity award received in North America
- 18.5% of executive positions worldwide held by women
- Proportion of senior executives with international experience over 80%

the percentage of women in executive positions from 9.8% (baseline 2010) to 15% by the end of 2020. At the end of 2013, the percentage of executive positions held by women in Germany was 13.0%. Continuing internationalization led us to update our goal for the proportion of senior executives<sup>1</sup> with international experience to over 80% in 2012. In 2013, 35% of our senior executives were non-German and 81.6% had international experience.

For more information, see basf.com/diversity

## Work-life balance

Part of what creates a good working environment is our development and expansion of a wide range of programs worldwide to help employees better combine professional and personal life. To compete for qualified employees, we respond to their differing needs and life stages. We offer, for example, diverse working models – such as flexible working hours, part-time employment and mobile working. In 2013, 10.9% of BASF SE employees held part-time positions, 68.9% of which were women. Numerous BASF SE employees also made use of their legal right to parental leave, including increasingly more men.

Employees with dependents who require home care receive counseling on how to balance care and career, covering topics such as reducing work load, switching temporarily to part time, or long-term care insurance.

Our regional initiatives address the needs of our employees at a local level. In Ludwigshafen, for example, we opened the Work-Life Management center for our employees in 2013, comprising numerous offers for sports and health promotion, employee assistance, and career and family. Starting at the end of 2013, we have expanded the capacity of company childcare at our site in Ludwigshafen from 70 to 250 children between the ages of six months and three years. Our childcare capacity in Münster is being raised to 50 children and in Kassel, we offer space for 140 children from six months to ten years of age.

For more information, see basf.com/worklife\_balance

#### What we expect from our leaders

Our leaders are seen as role models in implementing our strategy in their day-to-day business. Our leadership culture is based on the principles and values of BASF. Even the standards of conduct set forth in our compliance program are basically the same around the world, and are derived from a global Code of Conduct that our leaders, as role models, are expected to follow to an especially high degree. The global competency model introduced in 2013 likewise applies for all employees. It also forms the foundation of our employee and leadership development. We equip our leaders with a solid foundation in basic skills by means of a mandatory modular development program. Experienced leaders are supported by individual training in strengthening life-long competencies. In addition to our regional programs, we will also offer programs on an increasingly global level starting in 2014 to further intensify networking and exchange among leadership.

#### Leadership responsibility in the BASF Group

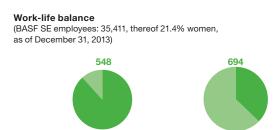
	December 31, 2013	Thereof women %
Professionals <sup>3</sup>	33,313	29.3
(Senior) executives <sup>4</sup>	7,655	18.5

<sup>3</sup> Specialists and experts without disciplinary leadership responsibilities

<sup>4</sup> Employees with disciplinary leadership responsibilities

#### **Global Employee Survey**

The Global Employee Survey, including its follow-up process, has been established for the entire BASF Group since the first global survey in 2008. We conducted the second Global Employee Survey in 2012. Employees and leaders have been discussing the results and determining measures for improvement together in all regions since the end of 2012. This relates to, for example, supporting employees in their career development, work-life balance and dealing with change. We conduct this survey on a regular basis.



Returnees from

parental leave

(women 37.3%)

## Leadership development

- Our leaders are seen as role models in implementing our strategy and our Code of Conduct
- Global competency model for employees and leaders
- Various offers for new and experienced leaders

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

<sup>2</sup> Parental leave including "partner months"

Employees on

parental leave

(women 88.5%)

Men Women

# Personnel expenses, compensation and additional benefits

In addition to market-oriented pay, BASF's total offer also comprises benefits, individual opportunities for development and a good working environment. Compensation for our employees worldwide is based on objective criteria. Compensation includes remuneration with fixed and variable components as well as additional benefits that often exceed the legal requirements. In many countries, these include company pension benefits, supplementary health insurance and share programs, to name a few. In 2013, the BASF Group spent €9,285 million on wages and salaries, social security contributions and expenses for pensions and assistance (2012: €8,963 million). Personnel expenses rose by 3.6%, particularly as a result of higher expenses for pensions, wage and salary increases, and the higher number of employees.

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

	2013	2012	Change in %
Wages and salaries	7,455	7,269	2.6
Social security contributions and expenses for pensions and assistance	1,830	1,694	8.0
Thereof for pension benefits	579	408	41.9
Total personnel expenses	9,285	8,963	3.6

An analysis at our site in Ludwigshafen of all employees exempt from collective agreements has shown that there is no systematic difference in the compensation of women and men, provided the jobs and qualifications are comparable. The difference in income was found to be less than 1%.

## Employees share in the company's success

With variable compensation components, the company's success is shared with our employees and they are rewarded for their individual performance. The same basic principles apply

to all employees. The variable component is determined by the economic success of the BASF Group – measured by the return on assets – and the employee's individual performance. The annual bonus for 2013 will once again reach a high level.

In numerous Group companies, employees are able to purchase shares. The BASF share program "*plus*" promotes the long-term participation of our employees in the company through incentive shares, allowing them to invest part of their compensation in BASF shares. In 2013, 23,957 employees around the world purchased 798,590 shares under the "*plus*" program. Since 1999, BASF has offered its senior 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 the BASF share. In 2013, 94% of the approximately 1,200 senior executives eligible 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 210 onward

## **Dialog with employee representatives**

Open dialog with employee representatives is an important component of our company's actions. 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 agreements reached.

For cross-border matters, the BASF *Europa Betriebsrat* (European Works Council) has been responsible for employees in Europe since 2008. We once again met with our German employee representatives in 2013 in the "Wittenberg Dialogs" to discuss the Code of Responsible Conduct for Business, which focuses on strengthening the social market economy and encouraging responsible corporate action.

For more information, see basf.com/employeerepresentation

## Compensation

- Compensation worldwide based on objective criteria and comprises fixed and variable components as well as additional benefits
- Variable components based on success of BASF Group and individual employee performance

## Long-term participation in company's success

- BASF share program "plus" encourages employees to make long-term investments through incentive shares
- Long-term incentive program ties portion of senior executives' compensation to long-term performance of BASF share

## Global labor and social standards

Compliance with national law and the core labor standards of the International Labor Organization (ILO) forms the basis of our social responsibility. Moreover, we aim to harmonize our working conditions worldwide with our voluntary commitments, the relevant ILO conventions, and OECD Guidelines for Multinational Enterprises, as well as with local requirements such as industry standards. In countries where national laws, rules and customs deviate from international standards, we are challenged with finding appropriate solutions by engaging in dialog with the relevant stakeholders.

We evaluate our adherence to our voluntary commitments using a three-pronged monitoring system implemented Groupwide. In 2013, our external compliance hotlines received 80 calls relating to human rights, 78 of which pertained to labor and social standards. Misconduct was identified in 20 cases. Countermeasures were taken in all cases. The results of the annual survey conducted at our Group companies reflect the working conditions of 100% of our employees in 2013. If the survey evaluation indicates that our voluntary commitments are being insufficiently implemented, we investigate this information and introduce remedial measures. In order to improve our worldwide adherence to international labor and social standards, we conduct regional risk analyses for our businesses every year, including in 2013.

- For more on labor and social standards, see basf.com/labor\_social\_standards
- Image: For more on our monitoring system, see page 22 onward

   For more on compliance, see page 127 onward

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#### Survey of ILO core labor standards / human rights 20131

	Process	implemented	Effectiveness of the process			
Prevention of child labor	100%	100% Verification of age of employee when hired		Employees are over 15 years of age when hired		
Prevention of forced labor	100%	Employment contract based on employee's voluntary agreement	100%	Employees have a right to unilateral termination of the employment contract		
Prevention of discrimination	100%	Personnel policies based on objective criteria		In 2013, we received 18 calls. Misconduct was identified in 2 cases and countermeasures were taken.		
Employees' right to freedom of association	100%2	No company measures to fundamentally restrict freedom	93%	Employees are working at a company in which employee representation exists		
Employees' right to collective bargaining	100%2	No company measures to fundamentally restrict freedom of collective bargaining		Employees are working at a company in which working conditions are based on a collective contract and employee representation exists		

<sup>1</sup> Data does not include Verenium Corporation, headquartered in San Diego, California. This company was newly acquired on November 1, 2013.

<sup>2</sup> Some of our employees are working in countries that have national legal restrictions with respect to freedom of association and collective bargaining.

## Labor and social standards

- National law and International Labor Organization's core labor standards as minimum standard
- Evaluation of adherence to voluntary commitments through a Group-wide monitoring system
- We strive to ensure that our working conditions comply with ILO standards, OECD Guidelines for Multinational Enterprises and local requirements

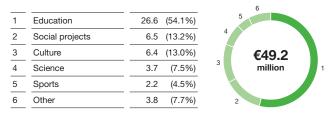
## **Social commitment**

We take on social responsibility: We are involved in diverse projects worldwide, especially in the communities in which our sites are located. Our main focus is on access to education. In this way, we promote innovative capacity and future viability.

## Strategy

In 2013, the BASF Group spent a total of €49.2 million supporting projects (2012: €49.0 million). Of this amount, we donated 27% (2012: 24%). We support initiatives that reach out to as many people as possible and have long-lasting 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 based in Germany, in its international projects with various U.N. and nongovernmental organizations.

# BASF Group donations, sponsorship and own projects in 2013 (Million $\ensuremath{\varepsilon}\xspace)$



## Focus on education

In 2013, 70,866 children and young people in 30 countries visited our Kids' Labs and Teens' Labs.

Our "Water is Precious" project was recognized as an official project of the U.N. World Decade of Education for Sustainable Development by the German Commission for UNESCO. As part of the project, we provide elementary school teachers and students with an understanding of the responsible use of water through their own experimentation.

## Principles and criteria for support

- Supporting projects that offer long-term benefits
- We foster education, science, social projects, sports and cultural events in communities around BASF sites
- Collaboration with expert partners such as the United Nations

As a founding member of the *Wissensfabrik* (Knowledge Factory), BASF is part of a nationwide network of more than 100 companies and foundations making a contribution to education and entrepreneurship in Germany. BASF additionally maintains over 200 educational partnerships with schools and kindergartens and provides mentors for young companies.

We expanded our early-childhood education initiative, Offensive Bildung, with two new projects in 2013. The Kinder Stärken! (Making Kids Strong!) project centers on fostering the health and resilience of children in ten day care centers in the Rhine-Neckar Metropolitan Region. The Treffpunkt Familienkita (Meeting Point: Family Day Care Center) project is helping ten day care centers in Ludwigshafen grow into family day care centers, aiming to create optimal educational and development opportunities for children together with parents, day care centers and other facilities.

Furthermore, we initiated the *Frühe Bildung im Austausch* (Exchange on Early Education) event series in 2013 to provide a platform for professional exchange with experts on educational practice.

## **BASF Stiftung projects**

Together with UN-HABITAT and Save the Children, BASF Stiftung began reconstruction and prevention projects in 2013 after the earthquake in the Sichuan province of China. BASF in China and its employees also supported these projects. BASF Stiftung provided a total of €300,000 to the United Nations World Food Programme and UNICEF for emergency relief measures to aid the victims of the typhoon in the Philippines.

BASF SE and its employees in Germany donated around €1.4 million to BASF Stiftung after the flood disaster in Central Europe to support reconstruction and flood protection measures.

The company and its employees contributed around €395,000 to BASF Stiftung in the 2013 end-of-year donation campaign. BASF Stiftung uses this money to support the educational projects of UNICEF, the United Nations Children's Fund, to aid Syrian refugee children.

For more information, see basf.com/international\_donations

## **Highlights 2013**

- "Water is Precious" recognized as a UNESCO Education for Sustainable Development project
- Emergency relief for typhoon victims in the Philippines
- €395,000 collected in end-of-year donation campaign

## The business year at BASF

Economic environment

In 2013, global economic growth was once again weaker than in the previous year. The beginning of the year was particularly sluggish for the major emerging markets and Europe. Growth was somewhat slower in the United States, as well. The end of the year saw indications of recovery in the global economy. At 2.3%, global gross domestic product did not rise as much as it did in 2012  $(+2.5\%)^1$  or as we had originally forecast for 2013 (+2.6%), despite positive developments in Japan.

For the forecast for the economic environment in 2014, see page 115 onward

Economic development was marked by sharp fluctuation in 2013. The debt crisis and resulting consolidation efforts continued to put a strain on the economy in Europe. In addition, the unusually cold winter in Northwestern Europe was detrimental for construction spending and private consumption. The weak European economy – especially at the beginning of the year – negatively impacted development in the emerging markets. Political uncertainty had a dampening effect, as well. Indications that the U.S. Federal Reserve would tighten its fiscal policy led to considerable depreciation in many emerging market currencies. Uncertainty declined toward the end of the year after economic data suggested that the European economy was bottoming out, and the Chinese economy picked up speed.

#### Trends in the global economy by region

In the **European Union**, gross domestic product stagnated in 2013. This was mainly on account of the first quarter's significant decline in growth. Growth rates were positive from the second quarter on; the slight recovery was predominantly supported by foreign economic influences. Domestic demand remained weak due to high unemployment rates in Southern Europe and a low propensity to invest. While the Spanish and Portuguese economies showed slight growth again over the course of the year, the recession in Italy continued unabated.

The Eastern European countries only achieved minimal gains. Of the larger EU countries, only the United Kingdom saw unexpectedly strong growth. Germany was not able to escape this weak European environment: At 0.5%, growth in gross domestic product remained very low (2012: +0.9%) and was mainly driven by private consumption.

## Gross domestic product

Real change compared with previous year

World	2013	2.3%
	2012	2.5%
European Union	2013	0.1%
	2012	(0.3%)
United States	2013	1.9%
	2012	2.8%
Asia (excl. Japan)	2013	5.9%
	2012	5.9%
Japan	2013	1.6%
	2012	1.4%
South America	2013	2.8%
	2012	2.3%

The **United States** saw moderate but weaker growth compared with 2012. Dampening effects came from the government; public spending declined overall. Budget cuts in the spring and the consequences of the budget and debt dispute in the fall also negatively impacted the economy. Private consumption, however, benefited from the continued recovery of the job market. Investment grew, as well.

## Trends in the global economy in 2013

- Global gross domestic product growth not as strong as in previous year (2013: +2.3%; 2012: +2.5%), remaining lower than our original forecast (+2.6%)
- Slow start to the year in major emerging markets and in Europe
- Indications of global economic recovery toward end of year

The economy in **Asia (excluding Japan)** experienced growth as strong as in 2012. Growth in China accelerated over the course of the year, and at 7.7%, remained at the previous year's level. The other emerging markets of Asia posted somewhat lower growth rates on average compared with 2012. Aside from weak global growth, one factor here was the considerable depreciation of these countries' currencies with respect to the U.S. dollar.

Gross domestic product in **Japan** grew comparably fast, as in the previous year. This was largely owing to government spending programs and the weak yen.

Growth in **South America** was slightly higher than in 2012, yet remained considerably below the average of previous years. Gross domestic product grew somewhat faster, especially in Brazil and Argentina, driven partly by the dynamically growing agricultural sector. High inflation rates, infrastructure bottlenecks, low raw material prices and a deteriorating consumption climate all dragged at the growth dynamic. By contrast, Chile, Peru and Colombia posted robust growth.

## Trends in key customer industries

Global industrial production grew by 2.5% in 2013, somewhat more slowly than in the previous year (+2.7%) and far below our prediction of +3.7%. Growth decelerated slightly in the industrialized countries (2013: +0.5%; 2012: +0.7%). This was largely the result of lower growth rates in the United States and Japan. In Europe, the decline in industrial production was significantly less than in 2012. Reduced growth in the emerging economies (2013: +4.6%; 2012: +5.0%) was mainly due to weaker development in China and India.

Many of the chemical sector's customer industries saw slower growth in 2013 than in the previous year. The decline was particularly significant in the transportation industry. After pronounced catch-up effects over the last few years, U.S. automobile production continued its robust growth but was nevertheless considerably slower than in 2012. Production fell sharply in Japan after the significant gains of the previous year. Growth in automobile production was also reduced in the emerging markets of Asia. The decline in European automobile production slowed down, yet production continued to shrink.

Only the construction and agricultural sectors were able to buck this trend. The United States, Japan and the emerging markets of Asia saw robust development in the construction industry. The decline in construction activities decelerated slightly in Europe. Agriculture benefited from better weather conditions than in the previous year, which was marked by long dry spells.

#### Growth in key customer industries Real change compared with the previous year

Industries total	2013	2.5%
	2012	2.7%
Transportation	2013	2.1%
	2012	6.2%
Energy and	2013	1.8%
resources	2012	2.7%
Construction	2013	3.4%
	2012	2.0%
Consumer goods	2013	2.2%
	2012	2.2%
Electronics	2013	3.1%
	2012	4.3%
Health and	2013	3.2%
nutrition	2012	4.0%
Agriculture	2013	3.3%
	2012	1.1%

## **Development of industrial production in 2013**

- At 2.5%, somewhat slower growth in global industrial production than in previous year (+2.7%)
- Reduced growth in several major customer industries
- Especially sharp growth decline in transportation sector (2013: +2.1%, 2012: +6.2%)
- Recovery in construction sector and stronger growth in agriculture

## 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

In contrast to industrial production, the chemical industry (excluding pharmaceuticals) grew slightly faster than in the previous year (2013: +4.6%; 2012: +2.9%), marginally above our forecast of +4.3%. Growth rates in chemical production had already increased somewhat over the course of 2012, so that the starting conditions in 2013 were more favorable for higher chemical, as opposed to industrial, production.

#### Chemical production (excluding pharmaceuticals) Real change compared with previous year

	·	
World	2013	4.6%
	2012	2.9%
European Union	2013	0.0%
	2012	(2.7%)
United States	2013	3.2%
	2012	2.1%
Asia (excl. Japan)	2013	8.5%
	2012	7.8%
Japan	2013	1.8%
	2012	(4.9%)
South America	2013	1.3%
	2012	2.6%

The development of the chemical industry varied widely from region to region. After a sharp decline in 2012, chemical production in Europe stagnated. The United States chemical sector posted stable growth against a backdrop of robust growth in customer industries, especially the automotive and construction industries. Growth rates in China and the other emerging markets were overall slightly above the high levels of 2012. After the prior year's significant decline, the Japanese chemical industry was able to again achieve moderately positive growth. Growth rates fell in South America, mostly as a result of slower growth in Brazil.

## Important raw material prices

At an annual average of around \$109 per barrel in 2013, the **crude oil price** of Brent blend was just under the previous year's level (\$112 per barrel). The oil price fluctuated over the course of the year between \$116 per barrel in February and \$103 per barrel in May and June. The springtime's comparatively high price level was primarily attributable to political conflicts in the Middle East.

Average monthly prices for the chemical raw material **naphtha** ranged over the course of 2013 between \$985 per metric ton in February and \$820 per metric ton in April. The average annual price of naphtha in 2013 was \$902 per metric ton, slightly below the prior-year level (\$937 per metric ton).

At \$3.73 per mmbtu, the average **price of gas** in the United States was above the very low 2012 level (\$2.75 per mmbtu). The price of gas in the European Union remained substantially higher on average, at around \$11.80 per mmbtu. In China, government-stipulated wholesale gas prices for industrial consumers were raised by around 15% in the middle of the year to a national average of around \$8.40 per mmbtu. In China's coastal regions, the price of gas was even between \$10 and \$12 per mmbtu.

## Trends in the chemical industry in 2013

- Growth in global chemical production (excluding pharmaceuticals) stronger than in previous year (2013: +4.6%; 2012: +2.9%)
- Positive growth in Japan after significant decline in previous year
- Somewhat higher growth rates in China
- Crude oil price of Brent blend just under prior-year level

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



- Oil spot price (Brent blend) in \$/barrel

Naphtha spot price in \$/metric ton

## Results of operations

## Sales and earnings (million €)

	2013	2012	Change in %
Sales	73,973	72,129	2.6
Income from operations before depreciation and amortization (EBITDA)	10,427	10,009	4.2
EBITDA margin %	14.1	13.9	
Income from operations (EBIT) before special items	7,190	6,647	8.2
Income from operations (EBIT)	7,273	6,742	7.9
Financial result	(560)	(765)	26.8
Income before taxes and minority interests	6,713	5,977	12.3
Income before minority interests	5,173	5,067	2.1
Net income	4,842	4,819	0.5
Earnings per share €	5.27	5.25	0.4
Adjusted earnings per share €	5.37	5.64	(4.8)

## Sales and earnings by quarter 2013<sup>1</sup> (million €)

	1st quarter	2nd quarter	3rd quarter	4th quarter	2013
Sales	19,738	18,353	17,733	18,149	73,973
Income from operations before depreciation and amortization (EBITDA)	2,854	2,489	2,494	2,590	10,427
Income from operations (EBIT) before special items	2,214	1,832	1,692	1,452	7,190
Income from operations (EBIT)	2,169	1,773	1,682	1,649	7,273
Financial result	(126)	(162)	(167)	(105)	(560)
Income before taxes and minority interests	2,043	1,611	1,515	1,544	6,713
Net income	1,446	1,157	1,096	1,143	4,842
Earnings per share €	1.57	1.26	1.20	1.24	5.27
Adjusted earnings per share €	1.67	1.40	1.28	1.02	5.37

#### Sales and earnings by quarter 2012<sup>1</sup> (million €)

	1st quarter	2nd quarter	3rd quarter	4th quarter	2012
Sales	18,840	17,836	17,472	17,981	72,129
Income from operations before depreciation and amortization (EBITDA)	3,304	2,510	2,141	2,054	10,009
Income from operations (EBIT) before special items	2,010	1,937	1,471	1,229	6,647
Income from operations (EBIT)	2,598	1,676	1,403	1,065	6,742
Financial result	(158)	(145)	(175)	(287)	(765)
Income before taxes and minority interests	2,440	1,531	1,228	778	5,977
Net income	1,703	1,208	925	983	4,819
Earnings per share €	1.85	1.32	1.01	1.07	5.25
Adjusted earnings per share €	1.54	1.59	1.16	1.35	5.64

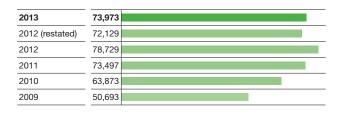
<sup>1</sup> Quarterly results not audited

+3%

## Sales

- Slight increase, mostly through higher sales volumes
- Negative currency effects slow down sales growth





<sup>2</sup> The figures for 2009 to 2011 were not restated according to IFRS 10 and 11 (see page 5). The figures for 2012 are shown before and after the restatement.

Growth in both the world economy and industrial production was slower in 2013 than in the previous year. In this challenging environment, our business developed solidly overall. Sales rose by just under 3% to reach €73,973 million. A considerable, volumes-driven sales increase in the Oil & Gas and Agricultural Solutions segments was largely responsible for this development. Sales slightly declined in the chemicals business' despite higher sales volumes. This was mainly on account of negative currency effects.

Income from operations before special items rose by around 8% to €7,190 million. In addition to our successful business with crop protection products and a higher contribution from the Functional Materials & Solutions segment, this increase was also due in large part to the earnings improvement in Other.

## Sales and income from operations before special items

We increased sales by just under 3% to €73,973 in 2013, primarily through higher sales volumes. The Oil & Gas and Agricultural Solutions segments posted an especially considerable volumes increase. Sales volumes grew slightly in the chemicals business. The acquisitions of Pronova BioPharma ASA and the Becker Underwood Group, as well as of assets from Statoil ASA, also contributed to sales growth. Sales prices were stable overall. Sales were negatively impacted by currency effects. Income from operations before special items surpassed the 2012 level by around 8%, reaching €7,190 million. This was largely owing to the considerable earnings increase in the Agricultural Solutions and Functional Materials & Solutions segments as well as significantly improved earnings in Other. Partly counteracting this development was a lower contribution from the Performance Products segment.

Sales in the **Chemicals** segment were 5% below the level of 2012 as a result of falling prices and negative currency effects. We increased sales volumes in the Intermediates and Monomers divisions. Volumes declined in the Petrochemicals

#### Factors influencing sales BASF Group

	Change in million €	Change in %	
Volumes	3,732	5	
Prices	(467)	0	
Currencies	(2,006)	(3)	
Acquisitions and changes in the scope of consolidation	793	1	
Divestitures	(208)	0	
Total change in sales	1,844	3	

division, however, due in part to scheduled plant shutdowns. Income from operations before special items rose by 1% overall. This was attributable to the significantly higher contribution from the Petrochemicals division.

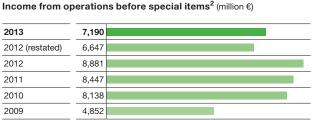
In the **Performance Products** segment, sales were down by 1% in 2013 despite higher volumes. Negative currency effects and lower prices resulting from reduced raw material costs were responsible for this decrease. The acquisition of Pronova Bio-Pharma had a positive impact on sales. We posted a 4% decline in income from operations before special items. This was mainly owing to negative currency effects.

We improved sales by 1% in the **Functional Materials & Solutions** segment, especially through higher sales volumes in the Performance Materials and Catalysts divisions. Sales declined considerably in the Construction Chemicals division, due primarily to currency effects. We raised income from operations before special items by 15%. All divisions contributed to this increase.

Sales in the **Agricultural Solutions** segment exceeded the level of 2012 by 12%. In a positive market environment, we raised sales volumes and prices in all regions and indications. The acquisition of Becker Underwood also boosted sales growth; negative currency effects had an adverse impact. Income from operations before special items rose by 18%, thanks in particular to the increase in volumes and prices.

## Income from operations before special items

- Slight increase compared with 2012
- Earnings improve, especially in Agricultural Solutions, Functional Materials & Solutions and Other



The figures for 2009 to 2011 were not restated according to IFRS 10 and 11 (see page 5). The figures for 2012 are shown before and after the restatement.

Our chemicals business includes the Chemicals, Performance Products and Functional Materials & Solutions segments.

# +8%

Mainly as a result of increased volumes, sales in the **Oil & Gas** segment grew by 16%. In the Exploration & Production business sector, this growth was particularly attributable to the activities acquired from Statoil in Norway, as well as to higher volumes in Russia and from our offshore field in Libya. Volumes also rose in the Natural Gas Trading business sector. Income from operations before special items surpassed the level of 2012 by 5%. A considerably higher contribution from the Exploration & Production business sector was able to more than offset the margin-related earnings decline in the Natural Gas Trading business sector.

Sales in **Other** grew by €129 million to €4,190 million in comparison with the previous year. This was due to increased sales for precursors not assigned to a particular segment. Income from operations before special items improved to minus €618 million as a result of lower charges, such as those from the long-term incentive program, compared with minus €790 million in 2012.

#### $\bigcap$ For more on business reviews by segment, see page 58 onward

Income from operations before special items for the BASF Group includes income from companies accounted for using the equity method. In 2013, this amounted to €298 million compared with €361 million in the previous year. The decline was mainly attributable to lower contributions from the Oil & Gas segment.

#### Income from operations and special items

At €7,273 million, income from operations before special items for the BASF Group in 2013 was up from the previous year's level (€6,742 million).

Special items in 2013 resulted in an earnings contribution of  $\in$ 83 million (2012:  $\in$ 95 million).

Divestitures of €591 million contributed to this total, which primarily included special income from the reclassification of GASCADE Gastransport GmbH, headquartered in Kassel, Germany, due to loss of control, as well as from the disposal of a 15-percent share in the Edvard Grieg development project in Norway. Divestitures had contributed €605 million to earnings in 2012, especially as a result of disposal gains from the fertilizer business.

Special charges for various restructuring measures fell by €16 million year-on-year to €257 million. By contrast, special charges for the integration of acquired businesses increased to €86 million (2012: €2 million).

Moreover, other special charges totaling €165 million arose in 2013. These primarily concerned impairments related to a plant in the Chemicals segment as well as to a gas field development project in the Oil & Gas segment. Other special charges of €235 million in 2012 were mostly attributable to impairment charges on a Norwegian oilfield development project.

Income from operations after cost of capital grew by  $\notin$ 708 million to  $\notin$ 1,872 million. This means we once again earned a high premium on our cost of capital.

#### Financial result and net income

The financial result improved to minus €560 million, compared with minus €765 million in the previous year.

The interest result improved by €19 million to minus €528 million on account of lower interest expenses for financial indebtedness. The bonds redeemed in 2012 and 2013 could be refinanced at more favorable conditions.

Income from shareholdings fell by €28 million to €4 million compared with the previous year.

Other financial expenses and income balanced out to minus €36 million compared with minus €250 million in 2012. This was mostly due to positive effects from the market valuation of options for the disposal of our share in the Styrolution joint venture. As a result, special income of €119 million arose in 2013, compared with the special charge of €88 million in 2012. Income before taxes and minority interests therefore included special items of €202 million, compared with €7 million in 2012.

Income before taxes and minority interests increased yearon-year by €736 million to €6,713 million. Return on assets amounted to 11.6%, compared with 11.0% in the previous year.

#### Special items (million €)

	2013	2012
Integration costs	(86)	(2)
Restructuring measures	(257)	(273)
Divestitures	591	605
Other charges and income	(165)	(235)
Total special items reported in income from operations (EBIT)	83	95
Special items reported in financial result	119	(88)
Total special items reported in income before taxes	202	7

Income taxes grew by €630 million to €1,540 million. The tax rate increased significantly from 15.2% to 22.9%. The previous year had included tax credits from impairment charges on a Norwegian oilfield development project as well as the reversal of tax provisions. Neither the special income from the disposal of a 15-percent share in the Edvard Grieg development project in Norway nor the earnings from the loss of control of the GASCADE Gastransport GmbH resulted in tax burdens in 2013.

Income before minority interests rose by €106 million to €5,173 million. Minority interests increased from €248 million to €331 million. After a negative earnings contribution in the previous year due to the temporary maintenance shutdown of the steam cracker, there were minority interests in profits at BASF Total Petrochemicals LLC in Port Arthur, Texas, in 2013. However, minority interests in profits were lower primarily at WINGAS GmbH because of falling margins in the natural gas trading business and at BASF Petronas Chemicals Sdn. Bhd., Malaysia, due to margin pressure and unscheduled production outages resulting from delivery problems with its main supplier.

Net income amounted to €4,842 million, slightly above the previous year's level of €4,819 million. Earnings per share rose from €5.25 to €5.27.

 For information on the tax rate, see the Notes to the Consolidated Financial Statements from page 178 onward
 For information on accounting methods, see the Notes to the Consolidated Financial Statements from page 149 onward

## **Cash flow**

At €7,870 million, we increased cash provided by operating activities by €1,268 million compared with the previous year. This was largely due to a reduction in the amount of net capital tied down in net working capital.

At €4,660 million, payments for property, plant and equipment and intangible assets were higher than both the level of depreciation and the level of 2012. At €3,210 million, free cash flow also exceeded the prior-year level (2012: €2,587 million).

#### Adjusted earnings per share

By adjusting for special items and the amortization of intangible assets, adjusted earnings per share is a key ratio that offers long-term comparability and is more suitable for predicting the company's future profitability.

In 2013, adjusted earnings per share amounted to  $\notin$ 5.37 compared with  $\notin$ 5.64 in the previous year.

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

	2013	2012
Income before taxes and minority interests	6,713	5,977
Special items	(202)	(7)
Amortization of intangible assets	635	673
Amortization of intangible assets contained in special items	(4)	(75)
Adjusted income before taxes and minority interests	7,142	6,568
Adjusted income taxes	(1,878)	(1,130)
Adjusted income before minority interests	5,264	5,438
Adjusted minority interests	(335)	(256)
Adjusted net income	4,929	5,182
Weighted average number of outstanding shares (in thousands)	918,479	918,479
Adjusted earnings per share (€)	5.37	5.64

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 174

## Income from operations (EBIT)

- EBIT before special items, EBIT and EBIT after cost of capital rise
- Premium once again earned on cost of capital
- Special income mainly from reclassification of GASCADE Gastransport GmbH and disposal of share in Edvard Grieg development project

## Financial result and net income

- Financial result improves considerably compared with previous year
- Net income increases slightly

# Actual development compared with outlook for 2013

Overall, we achieved the increase we forecasted in BASF Group sales and income from operations for 2013. Performance in the individual segments varied, however. We raised sales and income from operations in the Functional Materials & Solutions, Agricultural Solutions and Oil & Gas segments, as targeted. In Other, we were able to increase sales, thus exceeding our forecast. This was particularly due to higher-than-expected sales for precursors not assigned to a particular segment.

Contrary to our expectations, sales in the Chemicals segment were down compared with 2012 levels. In the Petrochemicals division, sales prices fell as a result of lower raw material costs. We increased our sales volumes as expected in the Monomers and Intermediates divisions; however, this gain in volumes was offset by negative currency effects, as well as by declining prices. Overall, we did not achieve the targeted improvement in income from operations, mostly on account of special charges from the impairment of a plant in 2013. In the Performance Products segment, we anticipated sales growth in all divisions. This was achieved in the Nutrition & Health division. In the other divisions, sales were particularly dampened by negative currency effects that were stronger than expected. We reached the targeted increase in income from operations in the Care Chemicals and Paper Chemicals divisions. Earnings declined in the Dispersions & Pigments, Nutrition & Health and Performance Chemicals divisions, especially owing to the negative currency effects.

We invested a total of  $\notin$ 4.4 billion in property, plant and equipment in 2013<sup>1</sup>, putting us at the upper end of the planned range of up to  $\notin$ 4.5 billion.

Given For information on our expectations for 2014, see page 118 onward

## Forecast/actual comparison

	Sale	es	Income from operations (EBIT)		
	2013 forecast	2013 actual	2013 forecast	2013 actual	
Chemicals	Increase	(5%)	Increase	(4%)	
Performance Products	Increase	(1%)	Increase	(14%)	
Functional Materials & Solutions	Increase	+1%	Increase	+27%	
Agricultural Solutions	Increase	+12%	Increase	+18%	
Oil & Gas	Increase	+16%	Increase	+50%	
Other	Decrease	+3%	Decrease	(209%) <sup>2</sup>	
BASF Group	Increase	+3%	Increase	+8%	

<sup>2</sup> For more on income before operations of Other, see the Notes to the Consolidated Financial Statements on page 172.

# Earnings per share and cash flow

- Earnings per share rise by €0.02 to €5.27 compared with 2012
- Adjusted earnings per share decrease by €0.27 to €5.37
- Cash provided by operating activities and free cash flow considerably higher than in previous year

# Net assets

## Assets

	Decembe	December 31, 2013		December 31, 2012	
	Million €	%	Million €	%	
Intangible assets	12,235	19.0	12,193	19.4	
Property, plant and equipment	18,254	28.4	16,610	26.5	
Investments accounted for using the equity method	4,137	6.4	3,459	5.5	
Other financial assets	630	1.0	613	1.0	
Deferred taxes	992	1.5	1,473	2.3	
Other receivables and miscellaneous noncurrent assets	876	1.4	911	1.5	
Noncurrent assets	37,124	57.7	35,259	56.2	
Inventories	9,592	14.9	9,581	15.3	
Accounts receivable, trade	9,376	14.6	9,506	15.2	
Other receivables and miscellaneous current assets	3,630	5.6	3,455	5.5	
Marketable securities	17		14		
Cash and cash equivalents	1,815	2.8	1,647	2.6	
Assets of disposal groups	2,828	4.4	3,264	5.2	
Current assets	27,258	42.3	27,467	43.8	
Total assets	64,382	100.0	62,726	100.0	

Total assets amounted to €64,382 million, exceeding the level of 2012 by €1,656 million.

Noncurrent assets grew by €1,865 million to €37,124 million. At €12,235 million, intangible assets including goodwill matched the previous year's level. The acquisitions-driven increase in intangible assets of €1,158 million was counterbalanced mainly by currency effects and amortization.

The value of tangible fixed assets increased by  $\in$ 1,644 million to  $\in$ 18,254 million, primarily as a result of investments and acquisitions. At  $\in$ 6,220 million, additions to property, plant and equipment considerably exceeded depreciation. Partly counteracting this were the reclassification of GASCADE Gastransport GmbH (headquartered in Kassel, Germany) and transfers from property, plant and equipment resulting from the transfer of a fully consolidated company's assets to an equity-accounted Group company in the Oil & Gas segment.

The  $\in$ 481 million decline in deferred tax assets was mostly due to the use of tax loss carryforwards as well as to actuarial gains on defined benefit plans.

At €27,258 million, current assets were €209 million below the previous year's level. Along with lower trade accounts receivable, the decline in disposal group assets for the natural gas trading business contributed to this development. While inventory levels were comparable with those of 2012, other receivables and miscellaneous assets increased.

At  $\in$ 1,815 million, cash and cash equivalents were  $\in$ 168 million above the level of December 31, 2012.

G 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 181 onward

# Assets

- Total assets exceed previous year's level by €1,656 million
- Noncurrent assets rise year-on-year, mainly as a result of investments and acquisitions
- Decline in current assets of €209 million

# Financial position

## Equity and liabilities

	Decembe	December 31, 2013		December 31, 2012	
	Million €	%	Million €	%	
Subscribed capital	4,341	6.7	4,364	6.9	
Retained earnings	26,170	40.7	23,708	37.8	
Other comprehensive income	(3,400)	(5.3)	(3,461)	(5.5)	
Minority interests	678	1.1	1,010	1.6	
Equity	27,789	43.2	25,621	40.8	
Provisions for pensions and similar obligations	3,709	5.8	5,421	8.6	
Other provisions	2,924	4.5	2,925	4.7	
Deferred taxes	2,849	4.4	2,234	3.5	
Financial indebtedness	11,151	17.3	8,704	13.9	
Other liabilities	1,157	1.8	1,111	1.8	
Noncurrent liabilities	21,790	33.8	20,395	32.5	
Accounts payable, trade	4,505	7.0	4,502	7.2	
Provisions	2,616	4.1	2,628	4.2	
Tax liabilities	954	1.5	870	1.4	
Financial indebtedness	3,256	5.0	4,094	6.5	
Other liabilities	2,182	3.4	2,623	4.2	
Liabilities of disposal groups	1,290	2.0	1,993	3.2	
Current liabilities	14,803	23.0	16,710	26.7	
Total equity and liabilities	64,382	100.0	62,726	100.0	

Equity grew by  $\notin 2,168$  million compared with the previous year. Net income amounted to  $\notin 4,842$  million, which exceeded dividend payments by  $\notin 2,454$  million. Additionally, the revaluation of defined benefit plans resulted in an increase in equity of  $\notin 1,127$  million. The equity ratio rose to 43.2% (2012: 40.8%).

Compared with the end of 2012, noncurrent liabilities grew by  $\notin$ 1,395 million to  $\notin$ 21,790 million. Long-term financial indebtedness increased by  $\notin$ 2,447 million to  $\notin$ 11,151 million. Over the course of 2013, we issued bonds with a nominal value of  $\notin$ 2.65 billion and NOK 1.45 billion with maturities between 3 and 30 years as part of our  $\notin$ 15 billion Debt Issuance Program. We also issued a U.S. private placement of \$1.25 billion consisting of three tranches with maturities between 12 and 21 years. Furthermore, loans and promissory notes in the amounts of €1.87 billion, £0.3 billion, and \$0.15 billion were paid back in 2013. A bond due in 2014 with a total volume of €1.25 billion was reclassified to short-term financial indebtedness. Deferred tax liabilities rose by €615 million and other liabilities by €46 million. However, provisions for pensions and similar obligations declined by €1,712 million because of higher discount rates. Other provisions matched the level of the previous year.

# **Equity and liabilities**

- Equity ratio rises to 43.2%
- Increase in long-term and decline in short-term financial indebtedness
- Net debt above prior-year level

## Net debt (million €)

	Dec. 31, 2013	Dec. 31, 2012
Cash and cash equivalents	1,815	1,647
Financial indebtedness	14,407	12,798
Net debt	12,592	11,151

Current liabilities declined by €1,907 million to €14,803 million. This was the result of the €838 million decline in financial liabilities to €3,256 million as well as the €703 million decrease in the liabilities of the natural gas trading disposal group. Other liabilities also fell by €441 million. While tax liabilities rose by €84 million in 2013, trade accounts payable and short-term provisions both matched the prior-year level.

Long-term financial indebtedness increased overall by €1,609 million to €14,407 million. Net debt rose to €12,592 million.

m	For more on the composition and development of individual liability items in the balance sheet, see the Notes to the Consolidated Financial Statements from page 188 onward
	For more on the development of the balance sheet, see the Ten-Year Summary from page 226 onward
	For more on the disposal group for the natural gas trading business, see the Notes to the Consolidated Financial Statements on page 169

## Financing policy and credit ratings

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 external 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.

With "A+/A-1/outlook stable" from rating agency Standard & Poor's and "A1/P-1/outlook stable" from Moody's, we have good credit ratings, especially compared with competitors in the chemical industry. Standard & Poor's last confirmed our long-term rating on November 22, 2013; Moody's last confirmed our long-term rating on October 14, 2013, and pronounced the outlook stable. Both agencies maintained BASF's short-term ratings.

Corporate bonds form the basis of our medium to long-term debt financing. These are issued in euros and other currencies with different maturities. Our goal is to ensure 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 commercial paper program, which has an issuing volume of up to \$12.5 billion. On December 31, 2013, \$1.70 billion worth of commercial paper was outstanding under this program. Firmly committed, syndicated credit facilities 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 in the course of 2013. Our external financing is therefore largely independent of short-term fluctuations in the credit markets.

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).

# G For more on the financing tools used, see the Notes to the Consolidated Financial Statements from page 201 onward

Financial management in the BASF Group is centralized and supported by regional finance units. 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. When possible, this occurs within the BASF Group. Foreign currency risks are primarily hedged centrally by means of derivative financial instruments in the market.

## Maturities of financial indebtedness (million €)

2019 and beyond	4 393	
2018	1,746	
2017	779	
2016	1,051	
2015	3,182	
2014	3,256	

# Financing instruments (million €)

1	Bank loans	1,812
2	Eurobonds	9,196
3	USD commercial paper	1,232
4	Other	2,167



## Statement of cash flows

At €7,870 million, we increased **cash provided by operating activities** by €1,268 million in 2013 compared with the previous year. This was largely due to a reduction in the amount of capital tied down in net working capital.

**Cash used in investing activities** amounted to minus  $\notin$ 5,769 million compared with minus  $\notin$ 3,977 million in 2012. At  $\notin$ 4,660 million, payments for property, plant and equipment and intangible assets were higher than both the level of depreciation and the prior year. Acquisitions led to a cash outflow of  $\notin$ 1,156 million in 2013 (2012:  $\notin$ 1,043 million). We received  $\notin$ 63 million in cash inflow from divestitures in 2013. This amount totaled  $\notin$ 724 million in 2012, predominantly from the disposal of our fertilizer activities. Cash outflow from financial investments and other

items in 2013 was mainly attributable to the increase in financing-related receivables.

 $\square$  For more on investments and acquisitions, see page 36 onward

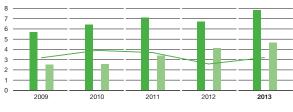
**Cash used in financing activities** amounted to minus €1,874 million. In comparison with 2012, cash outflow was lower by €1,030 million, which was largely due to lower repayment of bonds and promissory notes; by contrast, the volume of newly issued bonds rose. We paid €2,388 million in dividends to shareholders of BASF SE and €314 million to minority shareholders in Group companies.

In total, cash and cash equivalents rose by €168 million compared with the previous year, amounting to €1,815 million as of December 31, 2013.

## Statement of cash flows (million €)

	2013	2012
Net income	4,842	4,819
Depreciation and amortization of intangible assets, property, plant and equipment and financial assets	3,196	3,288
Changes in working capital	805	(844)
Miscellaneous items	(973)	(661)
Cash provided by operating activities	7,870	6,602
Payments related to property, plant and equipment and intangible assets	(4,660)	(4,015)
Acquisitions/divestitures	(1,093)	(319)
Financial investments and other items	(16)	357
Cash used in investing activities	(5,769)	(3,977)
Capital increases/repayments, share repurchases		(1)
Changes in financial liabilities	828	(343)
Dividends	(2,702)	(2,560)
Cash used in financing activities	(1,874)	(2,904)
Net changes in cash and cash equivalents	227	(279)
Cash and cash equivalents as of beginning of year and other changes	1,588	1,926
Cash and cash equivalents as of end of year	1,815	1,647

## Cash flow<sup>1</sup> (billion €)



**Financing and cash flows** 

- Financing principles remain unchanged
- "A" ratings confirmed
- Cash provided by operating activities above 2012 level
- Payments for investments and acquisitions increase

Cash provided by operating activities

Payments related to property, plant and equipment and intangible assets Free cash flow<sup>2</sup>

<sup>1</sup> The figures for the 2009 to 2011 business years were not restated according to the new accounting and reporting standards IFRS 10 and 11 (see page 5).

<sup>2</sup> Cash provided by operating activities less payments related to property, plant and equipment and intangible assets

# Business review by segment

# Segment overview (million €)

Sales		Income from operations before depreciation and amortization (EBITDA)		Income from operations (EBIT) before special items	
2013	2012	2013	2012	2013	2012
16,994	17,887	2,956	3,021	2,182	2,171
15,534	15,713	1,987	2,090	1,365	1,421
17,252	17,049	1,498	1,363	1,070	932
5,227	4,679	1,375	1,182	1,222	1,037
14,776	12,740	3,144	2,445	1,969	1,876
4,190	4,061	(533)	(92)	(618)	(790)
73,973	72,129	10,427	10,009	7,190	6,647
	2013 16,994 15,534 17,252 5,227 14,776 4,190	2013         2012           16,994         17,887           15,534         15,713           17,252         17,049           5,227         4,679           14,776         12,740           4,190         4,061	Sales         depreciation a (EB)           2013         2012         2013           16,994         17,887         2,956           15,534         15,713         1,987           17,252         17,049         1,498           5,227         4,679         1,375           14,776         12,740         3,144           4,190         4,061         (533)	Salesdepreciation and amortization (EBITDA)201320122013201216,99417,8872,9563,02115,53415,7131,9872,09017,25217,0491,4981,3635,2274,6791,3751,18214,77612,7403,1442,4454,1904,061(533)(92)	Sales         depreciation and amortization (EBITDA)         Income from op before spin 2013           2013         2012         2013         2012         2013           16,994         17,887         2,956         3,021         2,182           15,534         15,713         1,987         2,090         1,365           17,252         17,049         1,498         1,363         1,070           5,227         4,679         1,375         1,182         1,222           14,776         12,740         3,144         2,445         1,969           4,190         4,061         (533)         (92)         (618)

## Segment overview (million €)

	Income from operations (EBIT)		As	Assets		Investments <sup>2</sup>	
	2013	2012	2013	2012	2013	2012	
Chemicals	2,086	2,173	10,908	10,559	1,958	1,324	
Performance Products	1,100	1,276	13,614	13,457	1,497	764	
Functional Materials & Solutions	1,027	806	11,899	12,146	611	760	
Agricultural Solutions	1,208	1,026	6,777	6,527	324	1,054	
Oil & Gas	2,516	1,676	11,916	11,252	2,954	1,172	
Other <sup>1</sup>	(664)	(215)	9,268	8,785	169	189	
	7,273	6,742	64,382	62,726	7,513	5,263	

<sup>1</sup> Information on the composition of Other can be found in the Notes to the Consolidated Financial Statements from page 171 onward.

<sup>2</sup> Additions to property, plant and equipment (thereof from acquisitions: €1,511 million in 2013 and €106 million in 2012) and intangible assets (thereof from acquisitions €1,158 million in 2013 and €1,073 million in 2012)

# Contributions to total sales by segment

Chemicals	23%	
Performance Products	21%	
Functional Materials & Solutions	23%	
Agricultural Solutions	7%	
Oil & Gas	20%	
Other	6%	

# Contributions to EBITDA by segment

Chemicals	28%	
Performance Products	19%	
Functional Materials & Solutions	15%	
Agricultural Solutions	13%	
Oil & Gas	30%	
Other	(5%)	

# Sales<sup>1</sup> (million €)

	1st q	uarter	2nd g	uarter	3rd quarter		4th quarter	
	2013	2012	2013	2012	2013	2012	2013	2012
Chemicals	4,396	4,513	4,183	4,343	4,224	4,601	4,191	4,430
Performance Products	3,880	3,963	4,032	4,079	3,939	3,975	3,683	3,696
Functional Materials & Solutions	4,181	4,168	4,503	4,412	4,439	4,304	4,129	4,165
Agricultural Solutions	1,556	1,327	1,727	1,467	1,054	1,008	890	877
Oil & Gas	4,660	3,893	2,836	2,567	3,130	2,497	4,150	3,783
Other <sup>2</sup>	1,065	976	1,072	968	947	1,087	1,106	1,030
	19,738	18,840	18,353	17,836	17,733	17,472	18,149	17,981

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

	1st q	uarter	2nd q	uarter	3rd quarter		4th q	4th quarter	
	2013	2012	2013	2012	2013	2012	2013	2012	
Chemicals	650	556	495	601	527	569	510	445	
Performance Products	379	452	394	442	376	344	216	183	
Functional Materials & Solutions	239	257	293	216	300	231	238	228	
Agricultural Solutions	498	419	485	414	172	171	67	33	
Oil & Gas	630	640	382	330	422	499	535	407	
Other <sup>2</sup>	(182)	(314)	(217)	(66)	(105)	(343)	(114)	(67)	
	2,214	2,010	1,832	1,937	1,692	1,471	1,452	1,229	

## Income from operations (EBIT)<sup>1</sup> (million €)

	1st q	uarter	2nd q	uarter	3rd quarter		4th quarter	
	2013	2012	2013	2012	2013	2012	2013	2012
Chemicals	650	556	494	601	442	570	500	446
Performance Products	367	429	344	379	322	321	67	147
Functional Materials & Solutions	240	290	283	215	292	231	212	70
Agricultural Solutions	492	419	485	414	168	169	63	24
Oil & Gas	630	640	381	250	587	499	918	287
Other <sup>2</sup>	(210)	264	(214)	(183)	(129)	(387)	(111)	91
	2,169	2,598	1,773	1,676	1,682	1,403	1,649	1,065

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

<sup>2</sup> Information on the composition of Other can be found in the Notes to the Consolidated Financial Statements from page 171 onward.

# EBIT before special items by segment (million ${\ensuremath{\in}}$ )

# Chemicals2,182Performance Products1,365Functional Materials & Solutions1,070Agricultural Solutions1,222Oil & Gas1,969Other(618)

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

1st quarter 2013	<b>2,214</b>
1st quarter 2012	2,010
2nd quarter 2013	<b>1,832</b>
2nd quarter 2012	1,937
<b>3rd quarter 2013</b>	<b>1,692</b>
3rd quarter 2012	1,471
<b>4th quarter 2013</b>	<b>1,452</b>
4th quarter 2012	1,229

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

# 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 and North America for our internal and external customers.

With our production facilities, we form the core of the Verbund structure and supply the BASF 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, primarily in the chemical, electronics, construction, textile, lumber, automotive, pharmaceutical and crop protection industries. We continually improve our value chains and are expanding our market position – particularly outside Europe – with new methods and technologies, as well as through capital expenditures 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, 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 even more closely with regional market requirements.

## **Catamold**®

Cost-effective solution for small and complex metal parts in the automotive and electronics industries

Value for BASF

Sport

growth from 2013 to 2020

Value for our customers Up to

HO 70 Reduction in production costs

**Value for BASF** Metal injection molding is becoming steadily more important for manufacturers of small and complex metal parts for automotive and electronic applications. With Catamold<sup>®</sup>, an innovative injection molding material, we have figured out how to significantly improve the cost effectiveness of this procedure. This makes it economically attractive to switch from machining and precision casting to metal injection molding. By 2020, we expect the worldwide market for our Catamold<sup>®</sup> products to grow by around 9% each year.

Value for our customers Thanks to Catamold<sup>®</sup>, the costs associated with producing these metal parts decrease by up to 40% compared with conventional methods – while maintaining comparable stability and dimensional accuracy. Furthermore, Catamold<sup>®</sup> makes new designs possible and reduces the weight of metal parts. This benefits not only our own customers, but the end users, as well.

# Strategy

- Production of a broad range of basic chemicals and intermediates in integrated production facilities: the Verbund
- Supplying the value chains in the BASF Verbund and marketing our products to external customers
- Technology and cost leadership represent most important competitive advantages
- Success factors: economies of scale, Verbund advantages, continuous optimization of access to raw materials, lean processes, reliable and cost-effective logistics
- Constant optimization of production structures

# Products, customers and applications

Division	Products	Customer industries and applications
Petrochemicals	Basic products: ethylene, propylene, butadiene, benzene, alcohols, solvents, plasticizers, alkylene oxides, glycols and	Use within BASF Verbund
	acrylic monomers	Chemical and plastics industries; detergent, automotive, packaging and textile industries; production of paints,
	Specialties: Special plasticizers such as Hexamoll <sup>®</sup> DINCH <sup>®</sup> , special acrylates	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	Use within BASF Verbund
	impregnating resins, caustic soda, polyamides 6 and 6,6, standard alcoholates, sulfuric and nitric acid	Sectors such as plastics, electronics, lumber, furniture, packaging, textile, construction, automotive and other industries
	Specialties: Electronic chemicals, metal systems	
Intermediates	Basic products: butanediol and derivatives, alkylamines and alkanolamines, neopentylglycol, formic and propionic acid	Use within BASF Verbund
	Specialties: specialty amines such as <i>tert</i> -Butylamine, gas treatment chemicals, vinyl monomers, acid chlorides, chloroformates, chiral intermediates	Plastics, coatings and pharmaceutical industries, production of detergents and cleaners as well as crop protection products and textile fibers

# **Capital expenditures**

Location	Project	Additional annual capacity through expansion (metric tons)	Total annual capacity (metric tons)	Startup
Antwerp, Belgium	Construction: butadiene extraction		155,000	2014
Camaçari, Brazil	Construction: acrylic acid complex		160,000	2014
Chongqing, China	Construction: MDI plant		400,000	2014
Geismar, Louisiana	Construction: formic acid plant		50,000	2014
Ludwigshafen, Germany	Construction: TDI plant		300,000	2015
	Replacement: nitric acid plants			2015
	Expansion: Hexamoll <sup>®</sup> DINCH <sup>®</sup> plant	100,000	200,000	2014
Maoming, China	Construction: isononanol plant <sup>1</sup>		n/a	2015
Nanjing, China	Construction: additional acrylic acid complex	160,000	320,000	2014
	Construction: tert-Butylamine plant		10,000	2013
Shanghai, China	Construction: Ultramid <sup>®</sup> plant		100,000	2015

<sup>1</sup> Operated through joint venture with Sinopec

# Products

- Petrochemicals: broad range of basic products as well as specialties for the chemical and plastics industries, for example

- Monomers: inorganic basic products and specialties as well as isocyanate and polyamide for various branches, such as the plastics, construction and electronics industries
- Intermediates: most comprehensive intermediates portfolio in the world, including precursors for coatings, plastics, textile fibers and crop protection products

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

		Sit			
Product	Europe	North America	Asia Pacific	South America, Africa, Middle East	Annual capacity (metric tons)
Acrylic acid	Х	X	Х		1,190,000
Alkylamines	Х	X	Х		250,000
Formic acid	Х		Х		255,000
Ammonia	Х				1,525,000
Benzene	Х	X	Х		820,000
Butadiene	Х	X X	Х		645,000
Butanediol equivalents	Х	X	Х		535,000
Chlorine	Х				385,000
Ethanolamine and derivatives	Х		Х		400,000
Ethylene	Х	X	Х		3,375,000
Ethylene oxide	Х	X	Х		1,395,000
Urea	Х				545,000
Isocyanates	Х	X	Х		1,900,000
Caustic soda	Х				360,000
Neopentylglycol	Х	X	Х		165,000
Oxo-C4 alcohols (measured as butyraldehyde)	Х	X	Х		1,495,000
Polyamides 6 and 6,6	Х	X			720,000
Polyamide precursors	Х	X			1,070,000
PolyTHF®	Х	X X	Х		250,000
Propionic acid	Х		Х		150,000
Propylene	Х	X X	Х		2,550,000
Propylene oxide	Х		Х		925,000
Sulfuric acid	Х				920,000
Plasticizers	Х	X	Х		660,000

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

# Sales – Chemicals (million €)

2013	16,994	
2012	17,887	

# Sales by division

1	Petrochemicals	46%
2	Monomers	37%
3	Intermediates	17%



## Segment data Chemicals (million €)

		2013	2012	Change in %
Sales to third	parties	16,994	17,887	(5)
Thereof	Petrochemicals	7,785	8,260	(6)
	Monomers	6,385	6,772	(6)
	Intermediates	2,824	2,855	(1)
Intersegment	al transfers	6,388	5,947	7
Sales includir	ng intersegmental transfers	23,382	23,834	(2)
Income from	operations before depreciation and amortization (EBITDA)	2,956	3,021	(2)
EBITDA marg	yin %	17.4	16.9	
Income from	operations (EBIT) before special items	2,182	2,171	1
Income from	operations (EBIT)	2,086	2,173	(4)
Income from	operations (EBIT) after cost of capital	917	1,040	(12)
Assets		10,908	10,559	3
Research and	d development expenses	178	184	(3)
Additions to p	property, plant and equipment and intangible assets	1,958	1,324	48

## Chemicals

In the Chemicals segment, sales to third parties declined by €893 million to €16,994 million on account of lower prices and negative currency effects (volumes 0%, prices –3%, currencies –2%). Income from operations before special items rose by €11 million to €2,182 million. This was largely attributable to a considerable earnings increase in the Petrochemicals division, which more than compensated for the margin-related decline in the Monomers division. Income from operations in the segment fell by €87 million to €2,086 million. Special charges arose from the impairment of a plant.

We strive to slightly increase sales in 2014. In the Petrochemicals and Monomers divisions, we anticipate slight sales growth. Sales in the Intermediates division are likely to rise considerably. We expect higher sales volumes in the Monomers division, particularly for isocyanates, while the startup of new plants will contribute to sales growth in the Petrochemicals division. We forecast higher demand in the Intermediates division from the following key industries: automotive, crop protection and textile fibers. Overall, income from operations before special items is expected to be slightly below the 2013 level due to startup costs for several plants that will begin operations.

## Petrochemicals

In the Petrochemicals division, sales to third parties decreased by €475 million to €7,785 million in 2013. Aside from negative currency effects, this decline was due to lower volumes and prices (volumes –2%, prices –2%, currencies –2%).

Sales in Europe did not match the previous year's level, mostly on account of lower volumes. The scheduled shutdown of the steam cracker in Antwerp, Belgium, significantly contributed to this development. Reduced prices were further detrimental to sales development in the region. In North America, the lower price level in some product lines and the weaker U.S. dollar led to a slight decline in sales. By contrast, sales in Asia remained stable despite a difficult market environment.

## Factors influencing sales – Chemicals

Volumes	0%	
Prices	(3%)	
Portfolio	0%	
Currencies	(2%)	
Sales	(5%)	

Income from operations before special items – Chemicals (million €)

2013	2,182	
2012	2,171	

We observed pressure on margins, mainly in the acrylates and solvents business in Asia. This was particularly attributable to additional capacities and the resulting improvement in product availability in the region. Nevertheless, overall income from operations before special items considerably exceeded the level of 2012. We were able to more than compensate for lower margins in some product lines, particularly through significantly improved margins for steam cracker products in North America.

In Nanjing, China, we began construction on an acrylic acid plant in 2013 with an intended capacity of 160,000 metric tons per year. In Port Arthur, Texas, we continued to increase our feed flexibility in order to take even better advantage of low gas prices in the United States.

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

			3
1	Europe	53%	
2	North America	34%	
3	Asia Pacific	11%	€7,785
4	South America, Africa, Middle East	2%	2 million

## Monomers

At €6,385 million, sales to third parties in the Monomers division were €387 million below the level of 2012 (volumes 1%, prices -4%, portfolio -1%, currencies -2%). The sales decline in Europe and Asia in the second half of the year was especially considerable.

In the isocyanates business area, we increased our sales through higher volumes. Sales volumes for MDI exceeded the 2012 levels in all regions, while we were able to raise sales volumes for TDI, primarily in Europe. Sales in the polyamides business area fell as a result of lower prices. The further expansion of caprolactam capacity in China and dampened market growth for fiber polymers both led to price declines and lower margins. Our business with polymers for extrusion applications continued to develop positively despite growing competition. Sales for inorganic basic products were down compared with the previous year. This was largely on account of portfolio effects as well as lower prices for ammonia.

Income from operations before special items was significantly below the level of 2012. This is mostly attributable to weaker margins for caprolactam and polyamides.

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

1	Europe	40%		
2	North America	21%		
3	Asia Pacific	32%	3	
4	South America, Africa, Middle East	7%		



# Petrochemicals

- Sales significantly below previous year's level
- Lower volumes and prices in addition to negative currency effects largely responsible for sales decline
- Considerable rise in earnings due to significantly better margins for steam cracker products in North America

# Monomers

- Sales decrease significantly despite higher sales volumes
- Sales development adversely impacted by negative currency and portfolio effects as well as lower prices
- Considerable earnings decline particularly due to weaker margins for caprolactam and polyamides

# Intermediates

Sales to third parties in the Intermediates division declined by  $\in$ 31 million to  $\in$ 2,824 million compared with the previous year. Intensified competition in all regions led to falling sales prices overall. Negative currency effects also put a strain on sales development (volumes 5%, prices –4%, currencies –2%).

Butanediol and its derivatives were main drivers for volumes growth, especially in Asia and Europe. Sales volumes also increased in the polyalcohols and acetylene derivatives business area.

We slightly reduced fixed costs compared with the previous year. Income from operations before special items nearly achieved the level of 2012 despite overall higher pressure on margins and lower sales volumes in some high-priced specialties.

We began operations at a *tert*-Butylamine production plant in Nanjing, China, in 2013. Together with our joint venture partner, Sinopec, we also agreed to jointly construct a neopentyl glycol plant there. We began expanding our capacities for specialty amines in Ludwigshafen. Furthermore, we established Succinity GmbH with Purac Biochem BV in 2013 for the production of bio-based succinic acid. A fermentation plant is currently being modified near Barcelona, Spain; it is scheduled to start up in the first half of 2014 with an annual capacity of 10,000 metric tons of succinic acid.

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

1	Europe	45%
2	North America	17%
3	Asia Pacific	34%
_	South America, Africa, Middle Fast	40/
4	Middle East	4%



# Intermediates

- Sales slightly below previous year's level owing to lower sales prices and negative currency effects
- Sales volumes rise, especially for butanediol and its derivatives as well as for polyalcohols and acetylene derivatives
- Earnings nearly match level of 2012

# Performance Products

The Performance Products segment consists of the Dispersions & Pigments, Care Chemicals, Nutrition & Health, Paper Chemicals 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 or give their products improved application properties.

We take on the challenges arising from important future issues, especially population growth: scarce resources, strains on the environment and climate, 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 with 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 through which our products and processes, as well as our customers' applications and processes, contribute to sustainability by enabling, for example, 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 structures, 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 price/performance ratio and lean processes.

## Methanesulfonic acid

The readily biodegradable alternative to conventional acids



**Value for BASF** Marketed under the brand names Lutropur<sup>®</sup> MSA and Lutropur<sup>®</sup> M, BASF produces methanesulfonic acid using a proprietary and patented process. The innovative technology and high product quality allow for numerous new applications. Since its introduction, we have raised sales volumes of methanesulfonic acid by an average of 55% per year.

Value for the environment Methanesulfonic acid is not only colorless and odorless, it is also 100% biodegradable. According to OECD criteria, it is also considered "readily biodegradable," since significantly more than 70% of the substance degrades within ten days. Methanesulfonic acid occurs in nature as a part of the natural sulfur cycle. Its unique set of properties makes it possible to modify established industrial processes or to replace less environmentally friendly acids.

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# Strategy

- Customized products enable our customers to make their production processes more efficient and improve their products' application properties
- Global presence ensures reliable supply to customers in all regions
- Specialties: innovation, close relationships with leading customer companies, application and development expertise
- Standard products: efficient production structures, backward integration in Production Verbund's value chains, technology and cost leadership

# 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, products for construction chemicals, raw materials for paints and coatings, specialties for the electronics and other industries
Care Chemicals	Ingredients for skin and hair cleansing and care products, such as emollients, cosmetic active ingredients, polymers and UV filters	Cosmetics industry, hygiene industry, detergent and cleaner industry, agricultural industry and technical applications
	Ingredients for detergents and cleaners in household, institution or industry, such as surfactants, chelating agents, polymers and products for optical effects	
	Solvents for crop protection formulations and products for metal surface treatments	
	Superabsorbents for the hygiene industry	
Nutrition & Health	Additives for the food and feed industries, such as vitamins, carotenoids, sterols, enzymes, emulsifiers and omega-3 fatty acids	Food and feed industries, flavor and fragrance industry and pharmaceutical industry
	Flavors and fragrances, such as geraniol, citronellol, L-menthol and linalool	
	Active ingredients and excipients for the pharmaceutical industry, such as caffeine, ibuprofen and pseudoephedrine as well as binders and coatings for tablets, synthesizing pharmaceutical substances and intermediates for our customers	
Paper Chemicals	Dispersions for paper coating, functional chemicals, process chemicals, kaolin minerals	Paper industry, packaging made of paper
Performance Chemicals	Antioxidants, light stabilizers, pigments and flame retardants for plastic applications	Plastics processing industry, fuel and lubricant industry, oil and gas industry, mining industry, municipal and industrial water treatment, leather and textile industry
	Fuel and refinery additives, polyisobutene, brake fluids and engine coolants, lubricant additives and basestocks, components for metalworking fluids and compounded lubricants	
	Process chemicals for the extraction of oil, gas, metals and minerals, chemicals for enhanced oil recovery, water treatment chemicals, membrane technologies	
	Auxiliaries for the production and treatment of leather and textiles	

# Products

- Dispersions & Pigments: raw materials for the formulation of coatings, printing and packaging inks, varnishes, 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
- Paper Chemicals: products for the paper industry, packaging made of paper
- Performance Chemicals: wide range of customized products for industrial applications

# **Capital expenditures**

Location	Project	Additional annual capacity through expansion (metric tons)	Total annual capacity (metric tons)	Startup
Camaçari, Brazil	Construction: superabsorbents		60,000	2014/2015
Dahej, India	Construction: dispersions		n/a	2014
	Construction: surfactants		n/a	2014
Freeport, Texas	Construction: dispersions		n/a	2014
Ludwigshafen, Germany	Expansion: polyvinylamine	n/a	n/a	2013
	Expansion: vinyl formamide	n/a	n/a	2014
Nanjing, China	Construction: superabsorbents		60,000	2014
	Construction: additives		n/a	2014
	Construction: pigments		n/a	2013
Singapore	Expansion: antioxidants	n/a	n/a	2013
Theodore, Alabama	Construction: chelating agents		n/a	2015

# Production capacities of significant products

Product	Europe	North America	Asia Pacific	South America, Africa, Middle East	Annual capacity (metric tons)
Anionic surfactants	X	X	Х	X	550,000
Citral	X				40,000
Chelating agents	X	X X		X X	120,000
Methanesulfonic acid	X				30,000
Nonionic surfactants	X	X X	Х		630,000
Organic pigments	X	X	Х	X	n/a
Polyisobutene	X		Х		215,000
Superabsorbents	X	X	Х		470,000

# Sales – Performance Products (million $\in$ )

2013	15,534	
2012	15,713	

# Sales by division

1	Dispersions & Pigments	23%
2	Care Chemicals	31%
3	Nutrition & Health	14%
4	Paper Chemicals	9%
5	Performance Chemicals	23%



### Segment data Performance Products (million €)

		2013	2012	Change in %
Sales to third	l parties	15,534	15,713	(1)
Thereof	Dispersions & Pigments	3,557	3,668	(3)
	Care Chemicals	4,871	4,898	(1)
	Nutrition & Health	2,088	1,959	7
	Paper Chemicals	1,442	1,564	(8)
	Performance Chemicals	3,576	3,624	(1)
Intersegment	tal transfers	489	457	7
Sales includi	ng intersegmental transfers	16,023	16,170	(1)
Income from	operations before depreciation and amortization (EBITDA)	1,987	2,090	(5)
EBITDA marg	gin %	12.8	13.3	
Income from	operations (EBIT) before special items	1,365	1,421	(4)
Income from	operations (EBIT)	1,100	1,276	(14)
Income from	operations (EBIT) after cost of capital	(447)	(242)	(85)
Assets		13,614	13,457	1
Research and	d development expenses	377	345	9
Additions to	property, plant and equipment and intangible assets	1,497	764	96

## **Performance Products**

We were able to increase sales volumes in the Performance Products segment; however, sales to third parties in 2013 decreased by €179 million to €15,534 million. Negative currency effects and price reductions on account of lower raw material costs were largely responsible for this. The acquisition of Pronova BioPharma ASA slowed this sales decline (volumes 3%, prices –2%, portfolio 1%, currencies –3%). Compared with 2012, income from operations before special items decreased by €56 million to €1,365 million. This was particularly attributable to the negative currency effects. Special charges arose from the integration of Pronova BioPharma as well as from restructuring measures. As a result, income from operations fell by €176 million to €1,100 million. In a market environment that continues to be challenging, we aim to slightly increase sales in 2014 through organic growth. In the Dispersions & Pigments division, we anticipate rising demand from two key industries: automotive manufacture and construction. We also expect higher sales volumes in the Care Chemicals and Nutrition & Health divisions. Sales prices are likely to remain under pressure. We want to increase the capacity utilization of our existing plants and achieve high utilization of new plants, such as for superabsorbents and dispersions, from the start. We anticipate income from operations before special items considerably above the level of 2013. Strict cost discipline and repositioning measures to increase our competitiveness in all areas should contribute to this.

## Factors influencing sales – Performance Products

Volumes	3%	
Prices	(2%)	
Portfolio	1%	
Currencies	(3%)	
Sales	(1%)	

Income from operations before special items – Performance Products  $(\mbox{million}\ \mbox{\ensuremath{\in}\ })$ 

2013	1,365	5		
2012	1,421	1		

## **Dispersions & Pigments**

In the Dispersions & Pigments division, sales to third parties declined by €111 million to €3,557 million. This was largely due to negative currency effects from the depreciation of the Japanese yen and the U.S. dollar relative to the euro (volumes 4%, prices -2%, portfolio -1%, currencies -4%).

Despite these negative currency effects and intense pressure on prices, we were able to increase sales volumes in all business areas. We observed strong demand for dispersions in Asia Pacific and North America, while our resins were increasingly sought after in Europe. In the additives business, we achieved significantly higher volumes in all regions. Sales fell in the pigments business, however, as a result of currency effects and the divestiture of the offset printing inks business (IMEX) in the third quarter of 2012.

Income from operations before special items was only slightly below the level of 2012 despite these negative currency effects and a challenging market environment. Through restructuring measures and thanks to our strict cost management, we reduced fixed costs compared with the previous year. Special charges were mostly related to restructuring measures in the pigments business.

In 2013, we invested in the construction of new plants in Asia. These will contribute to our future growth in the region.

# **Care Chemicals**

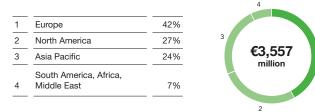
At €4,871 million, sales to third parties in the Care Chemicals division were €27 million below the level of 2012. Lower prices, primarily brought about by lower raw material costs, and negative currency effects from the U.S. dollar and Japanese yen were almost fully offset by higher sales volumes (volumes 5%, prices -3%, currencies -3%). Prices declined in particular for lauric oil-based standard products.

We were able to increase volumes in all business areas and regions despite a difficult market environment. We achieved the strongest volumes growth in the personal care products and hygiene businesses. In the hygiene business area, we particularly benefited from temporarily low capacities on the market. Overall growth momentum came primarily from Europe and South America.

Our capacity utilization was higher than in the previous year. Despite the negative currency effects, income from operations before special items grew considerably, mainly on account of the volumes increase. Furthermore, we reduced our fixed costs.

We purchased enzyme technology for detergents and cleaners from Henkel AG & Co. KGaA in 2013 in order to further strengthen our future market position for important ingredients for the detergents and cleaners industry.

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



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

1	Europe	51%
2	North America	23%
3	Asia Pacific	14%
4	South America, Africa, Middle East	12%



# **Dispersions & Pigments**

- Sales down slightly, mostly because of currency effects
- Sales volumes rise in all business areas
- Earnings slightly below level of 2012

# **Care Chemicals**

- Sales just under level of 2012
- Higher sales volumes almost fully offset lower prices and negative currency effects
- Earnings rise considerably, driven mainly by volumes

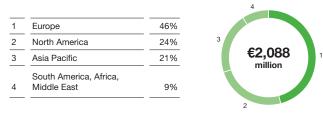
# **Nutrition & Health**

In the Nutrition & Health division, sales to third parties rose by  $\in$ 129 million to  $\in$ 2,088 million in 2013. This considerable growth is attributable to the integration of the acquired Pronova BioPharma ASA business, a leading producer of omega-3 fatty acids. The sales increase was weakened by negative currency effects as well as by lower sales prices mainly resulting from sustained competitive pressure in the vitamins business (volumes 2%, prices –2%, portfolio 10%, currencies –3%).

With demand largely stable, we were able to raise our sales volumes in almost all business areas and regions. We posted the largest volumes growth in the pharmaceutical and flavor and fragrance business areas.

Despite the positive contribution from Pronova BioPharma, income from operations before special items was considerably below the level of 2012. This was largely because of rising margin pressure and negative currency effects. Fixed costs were higher than the previous year's level, owing to increased research spending and higher production and selling expenses. Special charges arose from the integration of Pronova BioPharma and measures to increase our competitiveness.

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



# **Paper Chemicals**

Sales to third parties in the Paper Chemicals division fell by  $\in$ 122 million to  $\in$ 1,442 million compared with 2012 (volumes –2%, prices –4%, currencies –2%). Adjusted for the effects of restructuring measures, sales volumes matched the level of the previous year. This meant that our business developed better than the rest of our market, which shrank slightly in 2013. Lower raw material costs and an aggressive competitive environment led to declining prices. Negative currency effects additionally dampened sales.

The market development for graphical paper and packaging goods was considerably weaker than expected in all regions. Demand for paper chemicals declined as a result. While the paper industry in Europe and North America was marked by consolidation, massive overcapacities arose in Asia, especially in China. In this environment, we continued to realign our portfolio toward chemicals for packaging paper. Furthermore, we continued to concentrate on product lines with clear competitive advantages for us and for our customers. For example, we significantly increased sales volumes of VFA-based cationic polymers, which enable paper manufacturers to increase efficiency and reduce costs in the production process, thereby growing faster than the market.

Income from operations before special items fell considerably, mostly as a result of lower margins. Fixed costs were at the prior-year level. Our continuous cost-reduction programs and restructuring measures, such as exiting the optical brightener business in North America, were able to compensate for higher costs from the startup of new plants in Asia as well as from investments in our Center for Sustainable Paper Packaging.

# **Nutrition & Health**

- Acquisition of Pronova BioPharma ASA responsible for significant sales growth
- Sales volumes grow in almost all business areas and regions
- Margin pressure, negative currency effects and higher fixed costs lead to considerable decline in earnings

# Paper Chemicals

- Sales significantly below previous year's level
- Decline in sales largely due to lower prices and negative currency effects
- Earnings decrease significantly, mainly on account of lower margins

#### Paper Chemicals – Sales by region (Location of customer)

(Location of custome

1	Europe	46%	
2	North America	22%	3
3	Asia Pacific	26%	€1,442
4	South America, Africa, Middle East	6%	2

# **Performance Chemicals**

Sales to third parties in the Performance Chemicals division decreased by €48 million to €3,576 million compared with 2012. This was largely due to the depreciation of important currencies relative to the euro (volumes 2%, prices 0%, currencies -3%). We observed a slight rise in demand. In China and Europe, economic growth was slower than we had anticipated. Nevertheless, we were able to increase sales volumes, particularly in the business areas for water treatment, oilfield and mining chemicals, and fuel and lubricant additives.

Income from operations before special items was slightly down compared with the previous year. This is mostly attributable to the negative currency effects, which were particularly detrimental to our business with plastic additives. The previous year had also included insurance payments received for damage caused by the earthquake and tsunami in Japan. In 2013, special charges arose from restructuring measures, such as the even closer orientation of our plastic additives and water treatment chemicals businesses toward the changing needs of the market. Measures taken included the optimization of individual sites and of our portfolio as well as the realignment of the polyacrylamide value chain. In the future, we will group the pigments business of the plastic additives business area into the Dispersions & Pigments division. In 2013, we began operations at a plastic additives plant in Singapore, further increasing our proximity to customers in this growing region. In addition, we started the production of customer-specific antioxidant formulations in Bahrain, thus meeting increasing demand from important customer sectors like the automotive industry.

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

1	Europe	40%
2	North America	24%
3	Asia Pacific	25%
4	South America, Africa, Middle East	11%



# **Performance Chemicals**

- Sales slightly below 2012 level as a result of currency effects
- Sales volumes increase, especially in water treatment, oilfield and mining chemicals, and fuel and lubricant additives business areas
- Earnings decline slightly, largely owing to negative currency effects

# Functional Materials & Solutions

The Functional Materials & Solutions segment comprises the Catalysts, Construction Chemicals, Coatings and Performance Materials divisions. They develop 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 and sports and leisure. Our portfolio ranges from catalysts, battery materials, engineering plastics, polyurethanes, automotive and industrial coatings and concrete additives to construction products such as industrial flooring and decorative paints.

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 grow faster than the market and become even less dependent on the cyclicality of individual industries.

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.

# Copper chabazite zeolites Important raw materials for diesel catalysts

Value for BASF

13%

Annual increase in sales volumes for heavy-duty diesel engine vehicle catalysts since 2011 Value for the environment Elimination of more than

Of harmful nitrogen oxides (NO<sub>2</sub>) from diesel engine exhaust

**Value for BASF** Stricter vehicle emission regulations mean an increasing demand for modern catalysts. Our innovative copper chabazite zeolites are important raw materials for emission-control catalysts in diesel engines. The development of zeolites has helped us increase our sales volumes for heavy-duty diesel engine vehicle catalysts by 13% each year since 2011.

**Value for the environment** Our copper chabazite zeolites enable the elimination of more than 90% of harmful nitrogen oxides from diesel engine exhaust, setting a new industry standard. Specialized zeolites are also being increasingly applied in the production of petrochemicals.

# Strategy

- 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
- Continuous optimization of our product portfolio in accordance with regional market requirements and trends in the customer industries

# Products

- 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

# Products, customers and applications

Division	Products	Customer industries and applications
Catalysts	Automotive and process catalysts	Automotive and chemical industry, refineries, battery manufacturers
	Battery materials	
	Precious and base metal services	Solutions for the protection of air quality as well as the production of fuels, chemicals, plastics and battery materials
Construction Chemicals	Concrete admixtures, cement additives, underground construction solutions, flooring systems, sealants, solutions for the protection and repair of concrete, high-performance mortars	Cement and concrete producers, construction companies, craftsmen, builders' merchants
	and grouts, tile-laying systems, exterior insulation and finishing systems, expansion joints, wood protection solutions	Solutions for commercial and residential building construction, maintenance, repair and renovation as well as infrastructure
Coatings	Coatings solutions for automotive and industrial applications	Automotive industry, body shops, steel industry, painting businesses and private consumers, wind energy industry
	Decorative paints	
Performance Materials	Polyurethane systems and specialty elastomers, engineering and high-performance plastics, biopolymers and epoxy resins, insulation and specialty foams	Automotive, construction, electrical, household appliances, furniture, packaging, shoe soles and uppers

# **Capital expenditures**

Location	Project	Startup
Dahej, India	Construction: polyols, polyurethane systems, TPU and Cellasto®	2014
Geismar, Louisiana	Construction: polyurethane systems	2015
Kazan, Russia	Construction: concrete admixtures	2013
Lemförde, Germany	Construction: TPU	2014
Ludwigshafen, Germany	Expansion: Neopor®	2013
	Construction: specialty zeolites	2014
Münster, Germany	Expansion: coating resins	2015
Shanghai, China	Expansion: compounding engineering plastics	2014
	Construction: TPU	2014
	Construction: undercoats	2014
	Construction: coating resins	2015
Środa Śląska, Poland	Construction: mobile emissions catalysts	2014
Sydney, Australia	Construction: competence center for automotive refinish coatings	2013
Trostberg, Germany	Capacity expansion: dry mortars	2015
Yeosu, South Korea	Construction: Ultrason®	2014

# Sales – Functional Materials & Solutions (million ${\ensuremath{\in}})$

2013	17,252	
2012	17,049	

# Sales by division

1	Catalysts	33%
2	Construction Chemicals	12%
3	Coatings	17%
4	Performance Materials	38%



#### Segment data Functional Materials & Solutions (million €)

	2013	2012	Change in %
parties	17,252	17,049	1
Catalysts	5,708	5,568	3
Construction Chemicals	2,120	2,315	(8)
Coatings	2,927	2,961	(1)
Performance Materials	6,497	6,205	5
tal transfers	835	419	99
ng intersegmental transfers	18,087	17,468	4
operations before depreciation and amortization (EBITDA)	1,498	1,363	10
yin %	8.7	8.0	
operations (EBIT) before special items	1,070	932	15
operations (EBIT)	1,027	806	27
operations (EBIT) after cost of capital	(328)	(548)	40
	11,899	12,146	(2)
d development expenses	367	348	5
property, plant and equipment and intangible assets	611	760	(20)
	Catalysts         Construction Chemicals         Coatings         Performance Materials         all transfers         ng intersegmental transfers         operations before depreciation and amortization (EBITDA)         gin       %         operations (EBIT)         operations (EBIT)         operations (EBIT)         operations (EBIT)         operations (EBIT) after cost of capital	parties17,252Catalysts5,708Construction Chemicals2,120Coatings2,927Performance Materials6,497al transfers835ng intersegmental transfers18,087operations before depreciation and amortization (EBITDA)1,498gin%8.7operations (EBIT)1,070operations (EBIT)1,027operations (EBIT) after cost of capital(328)11,899367	parties17,25217,049Catalysts5,7085,568Construction Chemicals2,1202,315Coatings2,9272,961Performance Materials6,4976,205al transfers835419ng intersegmental transfers18,08717,468operations before depreciation and amortization (EBITDA)1,4981,363njn%8.78.0operations (EBIT) before special items1,027806operations (EBIT) after cost of capital(328)(548)d development expenses367348

## **Functional Materials & Solutions**

In the Functional Materials & Solutions segment, sales to third parties in 2013 rose by €203 million to €17,252 million (volumes 4%, prices 1%, currencies –4%). This is primarily attributable to higher sales volumes in the Performance Materials and Catalysts divisions. Sales in all divisions were negatively impacted by currency effects. In the Construction Chemicals division, portfolio measures additionally put a strain on sales development. At €1,070 million, income from operations before special items exceeded the level of 2012 by €138 million. All divisions contributed to this considerable increase. Income from operations in the segment grew by €221 million to €1,027 million as a result of lower special charges. In 2012, high special charges had occurred from measures to improve competitiveness in the Construction Chemicals division.

For 2014, we anticipate higher demand from our key customer industries, especially from the automotive and construction sectors. Sales volumes for our innovative specialties and system solutions are therefore likely to rise significantly. While we forecast a slight sales increase in the Catalysts division and a considerable sales increase in the Coatings and Performance Materials divisions, we are expecting sales in the Construction Chemicals division to match the level of 2013 as a result of portfolio effects. Overall, we are aiming for slight sales growth and a considerable, mainly volumes-driven increase in income from operations before special items.

# Catalysts

In the Catalysts division, we raised sales to third parties to €5,708 million, up by €140 million compared with the previous year (volumes 5%, prices 1%, currencies –3%). A higher contribution from precious metal trading and the increase in sales of

## Factors influencing sales – Functional Materials & Solutions

Volumes	4%	
Prices	1%	
Portfolio	0%	
Currencies	(4%)	
Sales	1%	

Income from operations before special items – Functional Materials & Solutions (million €)

932	2013 1,070
	932

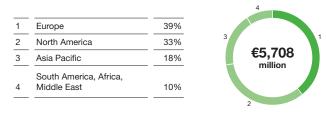
mobile emissions catalysts were largely responsible for this. Dampening effects came from lower sales levels for chemical catalysts.

As a result of greater demand for catalysts for heavy duty diesel-engine vehicles, as well as increased automobile production in Asia Pacific, sales volumes grew for our mobile emissions catalysts. Volumes declined in Europe due to the weak economic environment, despite an increase in sales volumes for diesel-powered vehicle catalysts. Sales volumes for mobile emissions catalysts continued to climb in North America on account of the growing demand for automobiles. In the chemical catalysts business area, we posted lower sales volumes due to the limited availability of some of our plants.

Sales in precious metal trading grew by €13 million to €2,355 million through higher volumes and prices.

Income from operations before special items significantly exceeded the level of the previous year. This was largely the result of higher margins for refinery catalysts and increased sales volumes for mobile emissions catalysts. Chemical catalysts posted lower earnings levels. The contribution from precious metal trading was also lower.

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



# **Construction Chemicals**

In the Construction Chemicals division, sales to third parties decreased by  $\notin$ 195 million in 2013 to  $\notin$ 2,120 million. This was particularly attributable to negative currency effects (volumes –2%, prices 1%, portfolio –2%, currencies –5%).

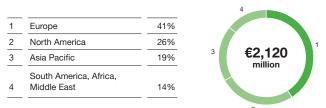
Catalysts

- Sales slightly above 2012 level
- Higher sales contribution from precious metal trading and our business with mobile emissions catalysts
- Significant earnings increase, mostly on account of higher margins for refinery catalysts and higher sales volumes for mobile emissions catalysts

In Europe, sales decreased primarily on account of the divestiture of individual businesses in addition to declining market development. We were able to significantly increase sales in Russia, bucking the industry trend. In the Middle East, particularly in Saudi Arabia, we also achieved a considerable sales increase thanks in part to positive development in construction activity. Sales in Asia declined significantly. This was mostly because of negative currency effects and decreased demand, especially in China. Our sales volumes in Japan and Southeast Asia rose compared with the previous year. With prices stable, currency effects in North America led to lower sales.

Income from operations before special items considerably exceeded the level of 2012. Strict fixed cost management and further efficiency measures were decisive in this development.

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



# Coatings

Sales to third parties in the Coatings division decreased by €34 million to €2,927 million. Negative currency and portfolio effects were almost fully offset by higher volumes and prices (volumes 4%, prices 2%, portfolio –1%, currencies –6%). Actual development was therefore just under our forecasted sales increase. While we were able to increase sales volumes in Asia and North America, they were stable in both Europe and South America. We raised sales prices in some business areas due to further increases in raw material costs.

# **Construction Chemicals**

- Sales decrease considerably particularly as a result of currency effects
- Earnings significantly exceed prior-year level
- Strict fixed cost management and efficiency measures decisive for earnings improvement

Our business with OEM coatings developed very successfully thanks to growing demand in Asia and North America. Automotive refinish coatings saw lower demand in Europe. We were able to offset this decline with increased volumes in Asia as well as higher sales prices in the other regions. In the industrial coatings business, sales development was strained by somewhat weaker demand for coil coatings from the Russian steel industry as well as for coatings for wind turbine rotor blades from the emerging markets. Demand for decorative paints declined slightly in South America, primarily in the premium segment. Sales for the business area were also negatively impacted by currency effects. Higher prices could not fully offset this. Sales decreased in Europe due to the divestiture of our business with Relius<sup>®</sup> decorative paints.

Income from operations before special items grew considerably, mainly owing to higher sales volumes for OEM coatings. Our fixed costs fell as a result of our programs to increase efficiency as well as currency effects. We were not fully able to pass higher raw material costs – caused in part by negative currency effects in South America – on to the market. Special charges arose from business unit restructuring in Europe as well as the sale of our decorative paints business in Argentina.

# Coatings – Sales by region

(Location of	f customer)	
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1	Europe	39%	4
2	North America	15%	
3	Asia Pacific	21%	
_	South America, Africa,		
4	Middle East	25%	3



## **Performance Materials**

In the Performance Materials division, sales to third parties in 2013 rose by €292 million to €6,497 million (volumes 7%, prices 1%, currencies –3%). Boosted by volumes, we raised our sales in all regions. Price levels were largely stable overall. Sales development was reduced by negative currency effects, particularly in South America and Asia.

Despite significantly reduced growth in the automotive industry compared with 2012, our businesses with polyurethane systems, engineering plastics and specialties for the automotive sector developed successfully. In a market environment that remained difficult, we benefited in Europe from our project business as well as from the high level of exports by premium manufacturers. We saw increased demand in North America.

Growth in Europe's construction sector remained negative. Nevertheless, we raised our sales of polyurethane systems for the construction industry in the region. In the other regions, our sales to the construction industry increased in a growing market.

We significantly improved income from operations before special items compared with the previous year. This was mainly the result of higher volumes.

We successfully concluded the restructuring of our business with Styropor<sup>®</sup> in Asia in 2013. Furthermore, we expanded and bundled our production capacity for polyure-thane systems and specialties in South America at the site in Guaratinguetá, Brazil.

#### Performance Materials – Sales by region (Location of customer)

1	Europe	49%
2	North America	19%
3	Asia Pacific	26%
	South America, Africa,	
4	Middle East	6%



# Coatings

- Sales slightly below level of previous year
- Negative currency and portfolio effects nearly offset by higher volumes and prices
- Considerable earnings increase, mostly as a result of higher sales volumes for OEM coatings

# **Performance Materials**

- Sales rise slightly, driven mainly by volumes
- Sales growth achieved in all regions
- Earnings improve significantly thanks to higher sales volumes

# 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.

BASF Plant Science, whose data is reported in Other, conducts research in the field of plant biotechnology.

## **Crop Protection – Strategy**

Our strategy has been developed based on long-term market trends. One challenge for sustainable development is ensuring enough food for a growing world population. To do this, we need to increase crop yields. Since arable farmland is limited, innovations are essential here. We therefore rely on a long-term innovation strategy to secure our future growth. We offer our customers a broad portfolio of integrated solutions and continually invest in our development pipeline in order to create innovations in chemistry and biology. Our research and development activities focus on solutions ranging from soil to seeds and crops. We are intensifying our investment in growth markets and continuing to expand our good position in our core markets. ()

In October 2013, we concluded the structural integration of the businesses acquired from Becker Underwood at the end of 2012. The Functional Crop Care global business unit was established in the course of the acquisition. In addition to products for seed enhancement and innovations for better soil management, Functional Crop Care will also provide technologies that make plants more resistant to stress factors such as heat, cold and nutrient deficiency. These solutions strengthen the health of crops, thus going beyond conventional crop protection. In addition, we will continue to enhance our partnerships with seed companies, also benefiting from the technological competence of BASF Plant Science. We work together with different BASF divisions to develop the best solutions for our customers, helping farmers secure and increase their yields.

# Clearfield<sup>®</sup> Production system in Malaysia Higher yields in rice cultivation

Value for BASF More than Expected annual sales growth in Malaysia until 2018 Value for our customers Up to

Greater rice yields

Value for BASF The Clearfield<sup>®</sup> Production System combines our broad-spectrum herbicides with our partners' nontransgenic, herbicide-tolerant seeds. In Malaysia, we expect a more than 9% increase in sales of our Clearfield<sup>®</sup> production system each year until 2018.

**Value for our customers** Weedy rice can cause considerable harvest losses in rice cultivation. By applying Clearfield<sup>®</sup>, our customers secure their harvests and can achieve up to three times more yield from their crops.

## Investments

In 2013, we invested €300 million in property, plant and equipment. A major portion of this total consisted of investments to expand production capacity for our F 500<sup>®</sup> fungicide as well as for an important precursor for the new fungicide Xemium<sup>®</sup>. Furthermore, we increased our sites' research and development

# Strategy

- Contribution to feeding growing world population
- Long-term innovation strategy ensures future growth
- Investments in core and growth markets
- Structural integration of Becker Underwood completed and Functional Crop Care global business unit established
- Development of solutions that go beyond conventional crop protection measures

## Products, customers and applications

Indications and sectors	Application	Product examples	
Fungicides	Protecting crops from harmful fungal attacks; improving plant health	Boscalid, Metiram, Dimethomorph, Initium®, Metrafenone, F 500®, Xemium®, AgCelence® (umbrella brand)	
Herbicides	Prevention of nutrient and water deprivation caused by weeds	kixor®, Dicamba, Pendimethalin, Imazamox, Topramezone Clearfield® herbicide tolerance system	
Insecticides	Combating insect pests in agriculture	Fipronil, Alpha-Cypermethrin, Chlorfenapyr, Teflubenzuron	
Functional Crop Care	Products beyond traditional crop protection for plant health and increased yield potential, such as biological control products, seed treatments, polymers and colorants	Standak® Top, Biostacked®, Flo Rite®, Vault® HP plus Integral®, Subtilex® NG	
Pest control	Nonagricultural applications: public health, professional pest control, landscape maintenance	Products for professional pest control: Termidor® to guard against termite infestation	
		Products for public health: Interceptor® mosquito nets to protect against malaria	

capacities, especially with the expansion of our research facility in Raleigh, North Carolina. In order to fully meet ongoing high demand for our innovative products in the future, we will invest around €1.8 billion in developing and expanding our production of active ingredients between 2014 and 2018. This includes the capacity expansion planned for our F 500<sup>®</sup> and Xemium<sup>®</sup> fungicides in Germany as well as for the Dicamba and Kixor<sup>®</sup> herbicides produced in the United States.

# BASF Plant Science Plant biotechnology at BASF

BASF Plant Science is one of the world's leading companies in 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 in the United States, Canada, Belgium and Germany, we help farmers meet the growing demand for increased agricultural productivity as well as better nutrition. BASF invests more than €150 million per year to accomplish these goals. Research and development expenses, sales, earnings and all other data of BASF Plant Science are not included in the Agricultural Solutions segment; they are reported in Other.

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 consistent 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 when water sources are limited.

For more on innovations in BASF Plant Science, see page 35

# Products

- Fungicides, herbicides, insecticides for the protection of plants against fungal diseases, weeds and harmful insects
- Function Crop Care, such as biological crop protection, seed solutions
- Products for pest control

# **BASF Plant Science**

- BASF's plant biotechnology company
- Pioneering gene identification platform
- Development of crops with clear advantages for farmers, consumers and the environment

#### Segment data Agricultural Solutions<sup>1</sup> (million €)

	2013	2012	Change in %
Sales to third parties	5,227	4,679	12
Intersegmental transfers	36	29	24
Sales including intersegmental transfers	5,263	4,708	12
Income from operations before depreciation and amortization (EBITDA)	1,375	1,182	16
EBITDA margin %	26.3	25.3	
Income from operations (EBIT) before special items	1,222	1,037	18
Income from operations (EBIT)	1,208	1,026	18
Income from operations (EBIT) after cost of capital	447	384	16
Assets	6,777	6,527	4
Research and development expenses	469	430	9
Additions to property, plant and equipment and intangible assets	324	1,054	(69)

<sup>1</sup> Research and development expenses, sales, earnings and all other data of BASF Plant Science are not included in the Agricultural Solutions segment; they are reported in Other.

## **Agricultural Solutions**

We improved sales to third parties in 2013 by €548 million to €5,227 million. Thanks to more favorable weather conditions, agriculture grew faster than in the previous year despite the late start to the season in the northern hemisphere. In this positive market environment, we raised both sales volumes and prices. Despite increased expenses for the expansion of our business activities, income from operations before special items exceeded the previous year's level by €185 million to reach €1,222 million. Special charges were mostly related to the integration of the Becker Underwood business acquired in November 2012. Income from operations therefore rose by €182 million to €1,208 million.

We will continue our strategy of profitable growth with innovative products and solutions in 2014. We expect continuing high exchange rate volatility in our most important growth markets. Prices for agricultural products are expected to be lower than in 2013, while nevertheless remaining above the averages of the last five years. We anticipate significant sales growth and a slight increase in income from operations before special items.

## **Crop Protection**

Business was very successful in the Crop Protection division in 2013. We increased sales to third parties by €548 million to €5,227 million compared with the previous year. This significant sales growth was chiefly due to increased volumes and prices in all regions and indications. The acquisition of Becker Underwood further increased sales. We successfully completed the integration of the acquired activities in the third quarter. Negative currency effects particularly impacted our business in the emerging markets (volumes 10%, prices 3%, portfolio 4%, currencies -5%).

## Sales – Agricultural Solutions (million €)

2013	5,227	
2012	4,679	

Factors influencing sales – Agricultural Solutions

Volumes	10%	
Prices	3%	
Portfolio	4%	
Currencies	(5%)	
Sales	12%	

In **Europe**, sales increased year-on-year by €126 million to €1,946 million. This was largely the result of higher volumes and sales prices for fungicides, especially Xemium<sup>®</sup>, and for herbicides. Our business developed successfully, especially in Germany and France.

Sales in **North America** exceeded the previous year's level by €389 million, amounting to €1,497 million. Growth was particularly driven by greater demand and higher prices for fungicides and herbicides. The acquisition of Becker Underwood also contributed significantly to this sharp increase in sales. Negative currency effects dampened sales.

Sales in **Asia** declined by €12 million to €513 million. The depreciation of numerous currencies in the region relative to the euro had a negative impact on sales development. Increased demand for fungicides in growing markets such as China, Indonesia and India were not able to fully offset this.

In **South America**, we improved sales by €45 million to €1,271 million despite highly negative currency effects. Sales volumes for insecticides grew. We successfully launched our Kixor<sup>®</sup> herbicide and Xemium<sup>®</sup> fungicide on the Brazilian market.

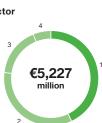
At €1,222 million, income from operations before special items in the Crop Protection division exceeded the level of 2012 by €185 million. This significant growth was primarily the result of increased volumes and sales prices.

## Crop Protection – Sales by region (Location of customer)

1	Europe	37%
2	North America	29%
3	Asia Pacific	10%
4	South America, Africa, Middle East	24%



# 1 Fungicides 43% 2 Herbicides 34% 3 Insecticides\* 17% 4 Functional Crop Care 6% \* Including pest control



€5,227

million

Income from operations before special items – Agricultural Solutions (million  $\in$ )

2013	1,222
2012	1,037

# **Crop Protection**

- Sales rise considerably thanks to higher volumes and sales prices as well as portfolio effects
- Sales grow in almost all regions and indications
- Significant earnings increase

# Oil & Gas

BASF's oil and gas activities are bundled in the Wintershall Group. Wintershall and its subsidiaries operate in the business sectors Exploration & Production and Natural Gas Trading.

In the future, crude oil and natural gas will continue to contribute significantly toward covering the sharply 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, Russia, North Africa and South America. We also aim to establish the Middle East as another of our core regions.

Our growth strategy is based on innovative technologies and selected collaborations. With the acquisition of assets from Statoil in July 2013, we achieved a significant milestone in the cooperation established in 2012. As a result of the transaction, our daily oil and gas production in Norway rose from around 3,000 barrels of oil equivalent (BOE) to just under 40,000 BOE. We also took over operatorship of the Brage oilfield.

We made progress in our collaboration with ADNOC, the national oil company of Abu Dhabi, on the Shuweihat gas project in 2013. This project is an important step for us toward establishing a greater presence in the Middle East.

As part of an asset swap with our longtime partner Gazprom, we will acquire 25% plus one share in two additional blocks of the Achimov Formation in the Urengoy Field in Western Siberia in 2014. In return, Gazprom will receive Wintershall's share of the gas trading and storage business which was previously jointly operated - as well as a share of 50% in Wintershall Noordzee B.V. The transaction will take place with retroactive financial effect as of April 1, 2013.

The importation of natural gas through pipelines will continue to be of great significance to Europe's supply security in the future. For this reason, in addition to developing and producing gas in and around Europe, we also help create the necessary transport infrastructure. For example, we will participate in the construction of the South Stream Offshore Pipeline through the South Stream Transport B.V.

## No more flaring

Wintershall uses waste gas to produce electricity, heat and steam

Value for BASF Around

Value for the environment Prevention of more than

# 530 million m<sup>3</sup> of associated gas put to

2 million tons

efficient use each year

of carbon emissions from oil production every year

Value for BASF For a long time, the associated gases released during crude oil production were burned off, unused. By investing in innovative technology, we were able to cease this "flaring" at all our production sites. The associated gas is instead utilized for the generation of electricity, heat and steam. We save costs, thanks to lower expenses for emissions certificates and less energy purchasing.

Value for the environment The flaring of associated gas not only destroys valuable energy resources, it also creates large quantities of greenhouse gases. By using the associated gas efficiently, we prevent around two million metric tons of carbon emissions from oil production per year.

Handling hydrocarbons in a responsible manner demands special measures for the protection of people and the environment. We 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, local legislation and our own, self-imposed high standards. (?)

# Strategy

- Oil and gas activities bundled into Wintershall Group
- Pursuit of our growth strategy through exploration, acquisitions, strategic partnerships and technological expertise
- Important contribution to securing Europe's natural gas supply

# **Exploration & Production**

- Increased collaboration with Gazprom right at the source
- Expansion of our position in Norway
- Intensification of activities in the Middle East

## **Exploration & Production**

**Europe:** The Mittelplate oilfield off the North Sea coast is the cornerstone of our crude oil production in Germany. We and RWE-DEA each own a 50% stake in this field, the largest known oil deposit in the country. At the Bockstedt oilfield, we continued our field test for increasing recovery rates with the biopolymer, Schizophyllan.

In 2013, Wintershall Noordzee B.V. discovered a new crude oil reservoir in the southern North Sea, in Danish territory close to the Ravn field. Investigations into its possible commercial development are to follow.

Our activities in Norway form a significant part of our portfolio. By acquiring shares in the Brage, Vega and Gjøa fields from Statoil, our daily oil and gas production there increased from around 3,000 barrels of oil equivalent (BOE) to nearly 40,000 BOE starting in August 2013. Since October, we have been the operator of the Brage field with a major production platform on the Norwegian continental shelf.

Our plans for the development and operation of the Knarr and Edvard Grieg oilfields have been approved by the Norwegian authorities. With the Asha Noor exploration well in the southern Norwegian North Sea, we have discovered an additional crude oil reservoir, which we operate ourselves.

Our license portfolio was expanded by the award of four new exploration licenses in Norway and six new blocks in the British North Sea. We are selling selected assets on the British continental shelf to the Hungarian MOL Group as part of our portfolio optimization. The transaction is expected to conclude in the first quarter of 2014 with retroactive financial effect as of January 1, 2013, subject to approval by the relevant authorities.

**Russia:** The Yuzhno Russkoye natural gas field in Western Siberia has been operating at plateau production since 2009. We have a 35% economic interest in this field. We hold a stake of 50% in the development of Block IA of the Achimov formation in the Urengoy field in Western Siberia. The gradual development of this field was accelerated; 25 wells were producing at the end of 2013. We signed a contract with Gazprom in December 2013 for the joint development of Blocks IV and V, as well. Wintershall will acquire 25% plus one share. Production is scheduled to begin in 2016.

North Africa / Middle East: In Libya, we operate eight oilfields in the onshore concessions 96 and 97. Strikes at export terminals forced us to suspend our entire oil and gas production in July 2013. The Al Jurf offshore oilfield in Libya, in which we have an investment, was able to remain in normal operation all year.

In Abu Dhabi, we are preparing the first appraisal well in the Shuweihat sour gas and condensate field together with ADNOC and the Austrian oil and gas company, OMV. In addition, we are involved in the exploration of Block 4N of the Khuff Formation off the coast of Qatar, where natural gas was proven in 2013. Block 3 was returned after the end of the exploration phase. Furthermore, we concluded a strategic cooperation agreement in the region with Mubadala Petroleum.

**South America:** We hold shares in a total of 15 onshore and offshore fields in Argentina. In the Neuquén Basin, we continued our technology projects to explore the potential for shale gas and oil. The Argentinian government created various incentives to encourage investment in the oil and gas sector. We were therefore able to achieve, for example, significantly higher earnings contributions for gas volumes exceeding a certain base production level. These improved conditions support our search for new deposits, in which we are increasingly exploring unconventional resources. In Chile, we returned the Otway and Tranquilo blocks after the end of the first exploration period.

## Natural Gas Trading

The activities in this business sector conducted together with Gazprom are predominantly combined into the W & G Beteiligungs-GmbH & Co. KG (W & G) Group. W & G primarily fulfills holding and financing responsibilities for the gas trading, transport and storage business, and holds the shares in the *Ostsee-Pipeline-Anbindungsleitung* (Baltic Sea Pipeline Link, or

# **Natural Gas Trading**

- Preparation for complete transfer of previously jointly operated natural gas trading and storage business to Gazprom
- Nordeuropäische Erdgasleitung (Northern European Natural Gas Pipeline) reaches full transport capacity

# Important developments in 2013

- We operate our first oil and gas platform on Norwegian continental shelf
- Production freeze in Libyan onshore fields since July due to export terminal strikes
- Improved conditions in Argentina fulfill requirements for expanding oil and gas production

## **Capital expenditures**

Location	Project	Total capacity*	Completion
Argentina	Development of Vega-Pleyade field	25 million BOE**	2016***
Germany	Construction of NEL onshore pipeline link to Nord Stream pipeline	20 billion m <sup>3</sup>	2012***/2013
North Sea, Norway	Development of Knarr field	20 million BOE**	2014***
	Development of Maria field	13 million BOE**	2018***
	Development of Edvard Grieg (Luno) field	35 million BOE**	2015***/2017
Siberia, Russia	Achimgaz, development of Achimov horizon in Urengoy gas and condensate field	70 million BOE**	2008***/2018

\* Plateau production

\*\* BOE = barrel oil equivalent

\*\*\* Year of startup

OPAL). The natural gas trading, gas transport and gas storage sectors act as independent subsidiaries under the umbrella of the holding. This organizational structure allows us to meet the unbundling requirements set down by the German Energy Act.

**Natural gas trading:** The W & G subsidiary WINGAS markets natural gas from various sources to Germany and other European countries. Its main customers are municipal utilities and regional gas suppliers as well as larger industrial firms and power plants. Furthermore, WINGAS is active on spot trading markets. As part of the agreed-upon asset swap, we will completely transfer our shares in WINGAS and in the natural gas trading companies in Berlin and in Zug, Switzerland – including their subsidiaries – to Gazprom.

**Gas transport:** The W & G Group's transport companies operate a gas pipeline system over 3,200 kilometers long. Construction work on the *Nordeuropäische Erdgasleitung* (North European Natural Gas Pipeline, or NEL) was completed in October 2013. With its full transport capacity of around 20 billion cubic meters of natural gas per year, the NEL is now ready for commercial operation. We hold a 15.5% share in the Nord Stream Pipeline through Nord Stream AG, which is equity-accounted as a financial asset in the BASF Group financial statements. 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 bolster supply security in Europe.

The South Stream Offshore Pipeline through the Black Sea is developed, constructed and operated by South Stream Transport B.V. The company is owned by Gazprom (50%), Eni (20%), Wintershall (15%) and EdF (15%). The gradual expansion to a transport capacity of 63 billion cubic meters of natural gas per year is scheduled to begin at the end of 2015.

**Gas storage:** The WINGAS subsidiary astora GmbH & Co. KG markets the storage capacity of Western Europe's largest natural gas storage facility in Rehden, Germany, as well as our share in the Haidach storage facility in Austria. The Jemgum natural gas storage facility in northern Germany began partial operations in 2013. We will transfer our gas storage activities to Gazprom as part of the asset swap.

Sales -	- Oil & Gas (million €)	Sal	es by division		1
2013	14,776	1	Exploration & Production	20%	€14,776
2012	12,740	2	Natural Gas Trading	80%	million

# Segment data Oil & Gas<sup>1</sup> (million €)

	2013	2012	Change in %
Sales to third parties	14,776	12,740	16
Thereof Exploration & Production	2,929	2,584	13
Natural Gas Trading	11,847	10,156	17
Intersegmental transfers	1,160	1,104	5
Sales including intersegmental transfers	15,936	13,844	15
Income from operations before depreciation and amortization (EBITDA)	3,144	2,445	29
Thereof Exploration & Production	2,133	1,775	20
Natural Gas Trading	1,011	670	51
EBITDA margin %	21.3	19.2	
Income from operations (EBIT) before special items	1,969	1,876	5
Thereof Exploration & Production	1,540	1,387	11
Natural Gas Trading	429	489	(12)
Income from operations (EBIT)	2,516	1,676	50
Thereof Exploration & Production	1,659	1,187	40
Natural Gas Trading	857	489	75
Income from operations (EBIT) after cost of capital	1,283	530	142
Assets	11,916	11,252	6
Thereof Exploration & Production	7,731	5,766	34
Natural Gas Trading	4,185	5,486	(24)
Research and development expenses	53	32	66
Exploration expenses	187	221	(15)
Additions to property, plant and equipment and intangible assets	2,954	1,172	152
Net income <sup>2</sup>	1,780	1,201	48

 $^{\scriptscriptstyle 1}$  Supplementary information on the Oil & Gas segment can be found from page 216 onward.

<sup>2</sup> Information on the net income of the Oil & Gas segment can be found in the reconciliation reporting Oil & Gas in the Notes to the Consolidated Financial Statements on page 172.

# Factors influencing sales - Oil & Gas

Volumes	14%	
Prices/currencies	(1%)	
Portfolio	3%	
Sales	16%	

Income from operations before special items – Oil & Gas (million €)

2013	1,969
2012	1,876

# Oil & Gas

Sales to third parties in the Oil & Gas segment grew by  $\notin 2,036$  million to  $\notin 14,776$  million in 2013. This was primarily the result of increased volumes in both business sectors (volumes 14%, prices/currencies –1%, portfolio 3%). At  $\notin 1,969$  million, income from operations before special items exceeded the previous year's level by  $\notin 93$  million thanks to the higher contribution from the Exploration & Production business sector. Various special items led to an increase of  $\notin 840$  million in income from operations, for a total of  $\notin 2,516$  million. Net income improved by  $\notin 579$  million to  $\notin 1,780$  million.

Our planning for 2014 is based on an average oil price of \$110 per barrel and a U.S. dollar exchange rate of \$1.30 per euro. We expect sales considerably below the 2013 level as a result of the divestiture of the gas trading and storage business planned for the middle of 2014. We anticipate a slight increase in income from operations before special items, driven by the first all-year inclusion of the Norwegian activities acquired from Statoil and the further expansion of Achimgaz production. We also expect to be able to resume onshore production in Libya. The asset swap planned with Gazprom will negatively affect income from operations before special items in 2014 as a result of the missing contributions from the current businesses to be disposed of.

## **Exploration & Production**

Sales to third parties in the Exploration & Production business sector rose year-on-year by €345 million to €2,929 million. This growth was largely attributable to the activities acquired from Statoil in Norway, as well as to higher volumes in Russia and from our offshore field in Libya.

The average price of Brent crude oil was just under \$109 per barrel, a reduction of 3% compared with the previous year. In euro terms, the price of oil declined by 6% to  $\in$ 82 per barrel due to the weaker U.S. dollar.

At 132 million barrels of oil equivalent (BOE), our crude oil and natural gas production matched the level of 2012. Production from our fully or proportionally consolidated activities increased considerably through the inclusion of the fields acquired in Norway and the accelerated expansion of production in the Achimgaz joint operation in Russia; yet this increase was negated by the suspension of crude oil and associated gas production at our equity-accounted onshore fields in Libya, caused by strikes at export terminals in July 2013.

Income from operations before special items improved by  $\in$ 153 million to  $\in$ 1,540 million, mainly as a result of higher contributions from Norway, Argentina and Russia. Special income of  $\in$ 164 million arose from the disposal of a share in the Edvard Grieg oilfield, partly counterbalanced by an impairment on a field development project.

In the search for new crude oil and natural gas deposits, we finished drilling a total of 20 exploration and appraisal wells in 2013, of which 8 were successful.

Our proven crude oil and natural gas reserves totaled 1,458 million BOE at the end of 2013, 20% more than in the previous year. We replenished 280% of the volumes produced in 2013. The reserve-to-production ratio is 11 years (2012: 9 years). This is based on Wintershall's share of production in 2013 and refers to the reserves at year-end.

# Oil & Gas segment

- Sales grow considerably, especially as a result of increased volumes in both business sectors
- Income from operations before special items improves slightly through higher contribution from Exploration & Production
- Net income considerably above previous year's level
- Current reserves increase from 9 to 11 years

# **Natural Gas Trading**

As a result of higher volumes, sales to third parties in the Natural Gas Trading business sector grew by €1,691 million to €11,847 million. At 521 billion kilowatt hours, sales volumes were significantly above the level of the previous year. We achieved growth of 23% to 277 billion kilowatt hours in our business abroad. WINGAS sold 7% of its volumes to BASF Group companies outside of the Oil & Gas segment.

Despite this positive volumes development, income from operations before special items declined by €60 million to €429 million, mostly as a result of pressure on retail margins. Continuing optimization measures on the procurement end were only partly able to halt the decline in margins. Earnings fell slightly in gas transport. Special income of €429 million arose from the reclassification of GASCADE Gastransport GmbH due to loss of control.

#### Oil & Gas – Sales by region (Location of customer)

1	Europe	97%
2	North America	0%
3	Asia Pacific	0%
4	South America, Africa, Middle East	3%



# **Exploration & Production**

- Sales grow, particularly as a result of higher volumes
- Crude oil and natural gas production at prior-year level despite suspension of production for onshore activities in Libya
- Income from operations before special items considerably above level of previous year, thanks primarily to increased contributions from Norway, Argentina and Russia

# Natural Gas Trading

- Sales increase considerably on account of higher trading volumes
- Considerable decline in income from operations before special items, mostly due to margin pressure in natural gas trading business

# Regional results

## Regions (million €)

	Sales by location of company			Sales by location of customer			Income from operations before special items		
	2013	2012	Change in %	2013	2012	Change in %	2013	2012	Change in %
Europe	43,335	41,445	5	41,221	39,428	5	4,422	4,356	2
Thereof Germany	31,571	29,320	8	14,446	15,210	(5)	1,854	2,292	(19)
North America	14,573	14,441	1	14,272	13,992	2	1,539	1,036	49
Asia Pacific	11,679	11,694		12,450	12,546	(1)	842	888	(5)
South America, Africa, Middle East	4,386	4,549	(4)	6,030	6,163	(2)	387	367	5
	73,973	72,129	3	73,973	72,129	3	7,190	6,647	8

## Europe

In 2013, companies headquartered in Europe posted a sales increase of 5% to €43,335 million. This was mainly due to the higher contribution from the Oil & Gas segment. At €23,857 million, sales in the chemicals business1 were down by 2% compared with 2012.

Sales declined in the Chemicals segment mostly as a result of significantly lower volumes in the Petrochemicals division as well as lower prices. In the Performance Products segment, sales rose slightly compared with the previous year. Higher sales volumes as well as the inclusion of the acquired Pronova BioPharma ASA businesses contributed to this. Sales in the Functional Materials & Solutions segment were above the 2012 level, driven by volumes and prices. The Agricultural Solutions segment continuned to develop, once again increasing our sales, particularly as a result of higher sales volumes. Sales in the Oil & Gas segment rose significantly. This was largely on account of volumes growth in natural gas trading and the inclusion of the activities acquired from Statoil.

At €4,422 million, income from operations before special items surpassed the level of the previous year by 2%. Higher contributions from the Agricultural Solutions segment and

improved earnings in Other were able to more than offset lower earnings in the chemicals business, which fell by 5% to €2,550 million.

We are taking a series of steps to strengthen the competitiveness of the Performance Products segment. We are adapting our business to altered market conditions by streamlining processes, investing in new technologies, taking portfolio measures and making organizational revisions.

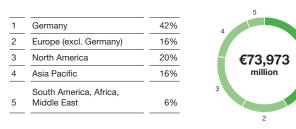
In Russia, we opened an additional production facility for concrete admixtures in Kazan. This allows us to even better address the needs of our customers.

# North America

At €14,573 million, sales for companies headquartered in North America were up year-on-year by 1%. Sales grew considerably in the Agricultural Solutions segment, thanks to the first all-year inclusion of the Becker Underwood businesses as well as to strong business with herbicides and fungicides. We posted a decline in sales in the Performance Products segment and in Other. In local-currency terms, sales in the region grew by 4%.

Income from operations before special items increased by 49% to €1,539 million compared with the previous year. This

# Sales by region (by location of company)



## Income from operations before special items by region

1	Germany	26%
2	Europe (excl. Germany)	36%
3	North America	21%
4	Asia Pacific	12%
5	South America, Africa, Middle East	5%



Our chemicals business includes the Chemicals, Performance Products and Functional Materials & Solutions segments.

was mainly the result of the significantly higher contribution from the Chemicals segment due to improved plant availability and higher margins in the Petrochemicals division. The Functional Materials & Solutions and Agricultural Solutions segments were also able to considerably improve their earnings.

We made progress in implementing our regional strategy for North America. An even stronger customer and market orientation plays a key role here. 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 increasing our operational excellence through ongoing improvements. We are boosting our investments in the region. We will start up several new plants in 2014, such as production facilities for formic acid and dispersions. We are exploring a joint investment in a world-scale ammonia production plant with Yara on the U.S. Gulf Coast.

#### **Asia Pacific**

Companies headquartered in Asia Pacific were able to increase sales by 5% in local-currency terms in 2013; in euro terms, sales matched the prior-year level, reaching €11,679 million. We increased sales volumes despite the difficult business environment. We saw high demand, especially in the Intermediates, Catalysts and Coatings divisions. However, higher sales volumes could not fully compensate for negative currency effects and declining prices.

Income from operations before special items declined by 5% to €842 million. This was largely attributable to weaker margins in the Chemicals and Performance Products segments.

In initiating our regional "Grow smartly" strategy, we will further strengthen our research and development presence in Asia Pacific through, for example, a battery materials laboratory in Japan and a center for electronic materials in Korea. By 2020, we aim to increase the proportion of sales in Asia Pacific from local production to around 75%. We started up production plants for brake fluid in Shanghai, China, and for *tert*-Butylamine in Nanjing, China, in 2013. Furthermore, we began construction on plants for isononanol in Maoming, China, and for automotive coatings and Ultramid<sup>®</sup> in Shanghai, China. We are expanding our production of mobile emissions catalysts in Chennai, India. To increase our profitability, we started a new program in 2013 to improve our regional structures. The goal here is to make our organization more efficient and even more closely aligned with our customers' needs.

#### South America, Africa, Middle East

At €4,386 million, sales for companies headquartered in South America, Africa, Middle East were 4% below the level of 2012. In local-currency terms, sales rose by 7%.

Chemical industry development in South America was weaker than we had expected. Sales declined slightly. Negative currency effects were only partially offset by higher volumes and prices. Demand rose particularly in the Agricultural Solutions segment; the Becker Underwood business acquired at the end of 2012 also contributed to sales growth.

Sales decreased considerably for companies in Africa, particularly on account of currency effects. By contrast, sales rose slightly in the Middle East. Increased volumes more than compensated for negative currency effects.

Income from operations before special items in the region improved by 5% to €387 million because of a higher contribution from the Oil & Gas segment in Argentina.

We devised a new growth strategy for South America and began its implementation. Aside from expanding our existing businesses, our focus is on the exploitation of additional growth potential through a stronger industry orientation and through innovations. Furthermore, investments such as the construction of a production complex for acrylic acid and superabsorbents in Camaçari, Brazil, will make an important contribution to our future growth. We will continue to increase our efficiency and optimize cost structures.

In South Africa, we opened a laboratory for mining chemicals in 2013 which allows us to offer technical services for mining customers throughout Africa.

## **Regional trends**

- Europe: series of measures for strengthening competitiveness of Performance Products segment
- North America: focus on innovation, attractive market segments and cross-business initiatives; increased investment in region
- Asia Pacific: strengthening research and development presence and local production; plants for production of brake fluids and *tert*-Butylamine startup in China
- South America, Africa, Middle East: implementation of new growth strategy begun in South America; laboratory for mining chemicals opened in South Africa

## Responsibility along the value chain

Supply chain management

Our suppliers are an important element of our value chain. Together with our suppliers, we aim to create value and minimize risks.

#### Strategy

With our sustainability-oriented supply chain management, we pursue two primary goals: We aim to strengthen our suppliers' awareness of our standards and expectations, and shape their contribution to sustainable development in a transparent manner.

#### What we expect from our suppliers

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 based on internationally recognized guidelines, such as the principles of the United Nations' Global Compact Initiative, the International Labor Organization conventions and Responsible Care. 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.

We provided training on sustainability-oriented supplier management to 745 employees in procurement around the world in 2013. This enables them to enter into dialog with our suppliers to raise awareness of, and minimize possible risks along, the supply chain

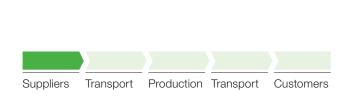
#### **Evaluating our suppliers**

BASF participates in the "Together for Sustainability" (TfS) initiative of leading chemical companies for the global standardization of supplier evaluations and auditing. This initiative aims to develop and implement a global program for the responsible supply of goods and services and to 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 initiated a total of around 2,000 sustainability assessments and audits in 2013. Starting in 2014, the activities will be expanded to include further countries and gain new members for the initiative.

In implementing the TfS program, risk matrices help us identify suppliers with a high sustainability risk potential based on country and product risks. Using this risk analysis and other evaluations, we audited a total of 155 raw material supplier sites on sustainability standards and initiated 550 sustainability assessments through an external service provider in 2013. If we discover a need for improvement, we support our suppliers in the development of measures to fulfill our standards. We then check again according to a defined time-frame based on the sustainability risk measured. If we cannot find any improvement, we terminate the business relationship. This occurred in 12 cases in 2013.

For more on supply chain management, see basf.com/supplychain

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Stations along the value chain<sup>1</sup>

## Suppliers

- Supplier Code of Conduct includes environmental protection as well as compliance with human rights, labor and social standards, antidiscrimination and anticorruption policies
- 155 raw material supplier sites audited on sustainability standards

<sup>1</sup> The diagram depicts the different stations along the value chain. The topics in each chapter address the station shown in dark green.

## 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.

#### Strategy

The Verbund system is an important component 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 2013, 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 examine the use of renewable resources in our Verbund system and are involved in the responsible cultivation and utilization of renewables in numerous projects along the value chain.

#### **Renewable resources**

Stations along the value chain

In 2013, around 3.5% of the raw materials we purchased worldwide were from renewable resources. We intensified our research and development activities for products and production processes based on renewable raw materials in 2013. For example, we developed the innovative "mass balance method" together with TÜV SÜD, in which fossil resources in the current Production Verbund are replaced by renewable resources with sustainability certification. The formulation and quality of the corresponding end products remain unchanged. In this process, renewable raw materials are used as feedstock at the very beginning of production in the Verbund, and allocated to the respective sales products using the new certification methods. The certified products thus contribute to sustainable development by saving fossil resources and reducing greenhouse gas emissions. We are supplying the first of these products – dispersions for construction adhesives – to a major manufacturer in adhesives whose products include flooring adhesives for the construction industry.

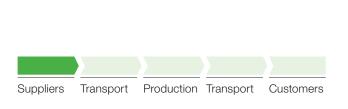
Together with our partner, Purac Biochem B.V., we established Succinity GmbH for the production of bio-based succinic acid. The bacterium used in this process can create succinic acid naturally from various renewable raw materials. This makes bio-based succinic acid an economically and ecologically viable alternative to petrochemical raw materials. Succinic acid is used in a number of applications, such as in the production of bioplastics, chemical intermediates, solvents, polyurethanes and plasticizers.

Furthermore, we produced the first amounts of 1,4-butanediol on a commercial scale using sugars as a renewable feedstock in 2013, based on a licensing agreement with the company Genomatica Inc. Butanediol and its derivatives are also used for producing plastics and solvents as well as electronic chemicals and elastic fibers.

Together with Cargill Inc. and Novozymes A/S, we are developing technologies to produce acrylic acid from renewable raw materials. As part of this cooperation, trial amounts of 3-hydroxypropionic acid have been produced from renewable raw materials since 2013. This is a potential precursor for biobased acrylic acid. One of the main applications for bio-based acrylic acid is in the production of superabsorbents for the hygiene industry.

Since 2012, BASF has invested in the technology company Renmatix Inc., which owns a method for obtaining industrial sugar from biomass. This technology can expand the base of renewable resources for BASF's future processes.

Together with Cargill and the German governmental agency for international cooperation, we also continued our project for the economical, environmentally friendly and socially



## **Renewable resources**

- Around 3.5% of raw materials purchased worldwide from renewable resources in 2013
- Development of "mass balance method," which utilizes renewable raw materials in Verbund
- First commercial-scale production of 1,4-butanediol from sugar

responsible production of coconut oil in the Philippines. Our goal is to develop and implement sustainability standards for the certification and production of this oil. As a member of the Roundtable on Sustainable Palm Oil, BASF is involved in projects which include the conservation of biodiversity in the cultivation of palm oil. By 2015, we aim to use palm and palm kernel oil only from agriculture certified according to sustainability criteria.

#### **Mineral raw materials**

In 2013, we once again performed an analysis to find out if we obtain raw materials from "conflict mines." To our current knowledge, this is not the case. Our suppliers have confirmed to us that they do not source their minerals from the Democratic Republic of Congo or its neighboring countries. We investigate the origins of the minerals we use and reserve the right to conduct an external audit and, if necessary, terminate our business relationship with that supplier. Through a standardized questionnaire, new suppliers must disclose to us in advance if their products contain conflict minerals.

#### Preserving ecosystems

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 regulating effects of ecosystem services on the preservation of air, water and soil quality. Biodiversity forms the foundation of ecosystem services. In 2013, we investigated our production sites around the world to discover which are located near internationally protected areas: 2% of our production sites (excluding Oil & Gas) are adjacent to a Ramsar Site, 1% to a Category I, II or III protected area of the International Union for the Conservation of Nature (IUCN), and none of our production sites is adjacent to a UNESCO protected area. We did not discover any impact of our activities on biodiversity in these areas in 2013.

In order to help preserve biodiversity and natural resources using modern agriculture, BASF established a European network with eleven "biodiversity farms." Within this network, we are developing biodiversity promotion measures together with one of the largest farms in Germany as well as with experts from science and nature conservation organizations. The farm network aims to grow into a global network by 2020.

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## Mineral raw materials

 We investigate the origins of the minerals we use and reserve the right to conduct external audits

## Preserving ecosystems

- Worldwide investigation shows no impact on biodiversity of our production sites adjacent to Ramsar Sites or IUCN Category I, II or III protected areas
- European network of eleven farms established for preservation of biodiversity

## 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

BASF's Responsible Care Management System comprises the global rules, standards and procedures for environmental and health protection, safety and security for the various stations along our value chain. Our regulations cover the transportation of raw materials, the activities at our sites and warehouses, the distribution of our products and our customers' application of the products. Concrete specifications for implementing these measures are laid out in binding directives. 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 environmental and health protection, safety and security. Our guidelines and requirements are constantly updated. In 2013, for example, we designed an even more transparent global guideline for incident reporting, and implemented a new requirement for the safe transportation of our products on barges. In addition, we set up a central database for our contaminated sites.

We assess risks 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, nearmisses and safety-related incidents at our sites as well as on 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/responsible-care\_e

## Audits

Regular audits help ensure that standards are met for environmental and health protection, safety and security. 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 an environmental, safety and security 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. Our internal audit system complies with the standards for external auditing procedures ISO 19011 and OHSAS 18001. Worldwide, 200 BASF production sites are certified in accordance with ISO 14001 (2012: 196). We introduced short-notice audits throughout Europe in 2013, which included facility inspections and document reviews. We plan to conduct these audits worldwide in 2014. In the BASF Group in 2013, 132 environmental, safety and security audits were carried out at 85 sites, in addition to 22 short-notice audits at 10 sites. We audited 44 sites with respect to occupational medicine and health protection.

For more on occupational safety and health protection, see page 95 onward

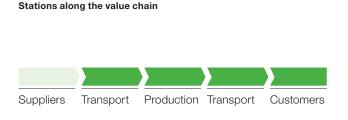
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## Costs and provisions for environmental protection in the BASF Group (million $\ensuremath{\in})$

	2013	2012
Operating costs for environmental protection	893	901
Investments in new and improved environmental protection plants and facilities <sup>1</sup>	325	268
Provisions for environmental protection measures and remediation <sup>2</sup>	601	617

<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



## Group directives and audits

- New requirement implemented for safe transportation of our products on barges
- Guideline for incident reporting made even more transparent
- Introduction of short-notice audits at production sites in Europe

## Safety, security and health

## **Transportation and storage**

Our regulations and measures for transportation and warehouse safety comprise 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

We have defined and updated global directives for the transportation and storage of chemical products both in our own warehouses as well as in rented facilities. In order to make the transportation of our products by barge even safer, we set out new requirements in 2013. Furthermore, we introduced a requirement for the selection of external warehouses that increases the focus on safety.

Our 2020 goal is to reduce the worldwide number of transportation accidents per 10,000 shipments to 0.17, a 70% reduction compared with baseline 2003. In 2013, we lowered the number of yearly transportation accidents to 0.22 per 10,000 shipments compared with 0.56 in 2003 (2012: 0.24), representing a decrease of 61%. The number of product spillages during shipment in 2013 amounted to 0.23 per 10,000 shipments (2012: 0.25).

#### Accident prevention and assistance

We stipulate worldwide requirements for our logistics service providers and assess them in terms of safety and quality. In 2013, we assessed around 450 companies around the world. Our experts use our own evaluation and monitoring tools as well as internationally approved schemes, such as the European Safety and Quality Assessment System. If we find out that our standards are not being met, we discuss this with our logistics service providers and ensure that the necessary measures for improvement are immediately initiated.

Together with other companies, we conducted workshops on transportation and warehouse safety in port facilities in Mombasa, Kenya, and Tema, Ghana, in 2013 as part of a cooperation project of the United Nations Environment Programme and the International Council of Chemical Associations.

Suppliers Transport Production Transport Customers

We evaluate the risks in transporting raw materials with high hazard potential: In 2013, for example, we carried out risk assessments for the combined road and rail transport of chlorine in Italy as well as for the transport of propylene oxide in India. To further promote uniform transportation safety standards in the chemical industry, we worked with the European Chemical Industry Council, CEFIC, to develop a guideline for conducting risk assessments. We plan to implement this guideline worldwide from 2014 onward.

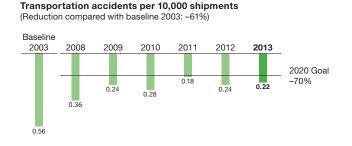
If an incident occurs despite all preventive measures, we provide swift and specially coordinated assistance worldwide. More than 150 employees are active around the world as trained transportation safety advisors, taking part in support processes and procedures and helping to derive the right measures for avoiding incidents.



## Activities in external networks

We are actively involved in external networks which quickly provide information and assistance in emergencies. These include the German Transport Accident Information and Emergency Response System (TUIS), in which BASF plays a coordinating role. In 2013, we provided assistance to other companies in around 250 cases. We apply the experience we have gathered in working with TUIS to set up similar systems in other countries. For example, we advanced the global standardization of accident assistance procedures in 2013.

For more, see basf.com/distribution\_safety and basf.com/emergency\_response



## Production

At our sites, we never compromise on safety. For occupational safety and health protection, 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. They help prevent loss of production and damage to the environment.

#### **Global goals**

We have set ourselves ambitious goals for occupational safety and health protection. By 2020, we want to reduce the number of work-related accidents per million working hours by 80% to 0.65 work-related accidents compared with baseline 2002. 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 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.

#### **Occupational safety**

We promote and monitor safety at work through methods such as risk assessments, safety rules, seminars and audits. In addition to routine safety instructions, around 15,000 employees have received training in occupational safety at our sites worldwide as well as at our "Safety Champions Training Center" at the site in Ludwigshafen in 2013. To raise employee awareness of safe behavior on business trips, we updated our recommendations for business travelers in 2013.

In 2013, 1.4 work-related accidents per million working hours occurred at BASF sites worldwide, representing a decrease compared with the previous year (2012: 1.7). Compared with baseline 2002, the lost-time injury rate declined by 58%. There were 2.1 work-related accidents per million working hours for contractors in 2013 (2012: 2.4).

Unfortunately, there were three fatal work-related traffic accidents in 2013: One employee suffered a fatal traffic accident in January in Dubai, United Arab Emirates. In April, one employee died on a business trip in Moscow, Russia, and another suffered a fatal traffic accident on a business trip in Shanghai, China.

In order to achieve our ambitious 2020 goal of reducing the work-related accident rate by 80% compared with 2002, we particularly rely on the commitment of our employees and on clearly defined safety rules. For example, we expanded our requirements for the safe handling of hazardous materials in the laboratory in 2013.

For more on occupational safety, see basf.com/occupational\_safety



#### **Health protection**

Our global health management serves to promote and protect the health and productivity of our employees. Contributing to this were numerous emergency drills and health promotion measures in 2013. Worldwide standards for occupational medicine and health protection within BASF are specified in a directive that is implemented by a global network of experts. We regularly conduct occupational medical audits to monitor our performance.



## Occupational safety and health protection

- Update of our safety recommendations for business travelers
- Expansion of requirements for safe handling of hazardous materials in the laboratory
- Worldwide campaign for back health planned for 2014

With a Health Performance Index of 0.89, we have not yet been able to fulfill the ambitious goal of exceeding 0.9 each year (2012: 0.89). In 2013, we introduced worldwide health checks with consultations on excess weight, diabetes, high blood pressure and musculoskeletal disorders. For 2014, we plan to inform our employees about back health.

## For more on occupational medicine, health promotion campaigns and the HPI, see basf.com/health\_protection

#### **Process safety**

When designing a new facility, we focus on prevention and apply a five-step review system from conception to startup. Through this, we review the most important safety, security, environmental and health protection aspects in order to incorporate them early on, and observe and monitor them in every stage of planning. We use a risk matrix to assess risks according to their estimated probability and potential impact, and stipulate appropriate protective measures.

In order to continually improve the safety of our plants worldwide, we review our safety concepts as well as the application of our risk matrix in all plants with medium to high hazard potential every ten years. In addition, we implemented a Group directive in 2013 on the annual review of process safety management systems and global requirements for plant safety documentation.

Incidents at our sites which led to fires, explosions or the release of substances are recorded and evaluated in detail. We updated our global guideline on incident reporting in 2013. This allows us to even better evaluate the causes of incidents on a global level and further optimize our processes. In addition, we expanded our training measures for process safety in 2013 and instructed more than 10,000 employees. As part of a working group of the International Council of Chemical Associations, we are involved in the development of a global key performance indicator on process safety.

For more on process safety, see basf.com/process\_safety

#### Hazard prevention and site security

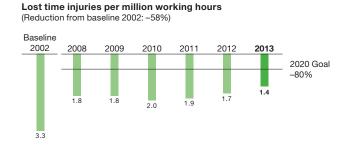
We are prepared for potential incidents in our production plants with specific emergency response plans. Depending on the situation, these also involve partners and suppliers as well as cities, communities and neighboring companies. Our central emergency response supports local emergency response units around the world and around the clock. In order to ensure uniformly high standards for safety, security, the environment and health, we continued to implement our hazard prevention and emergency response guidelines in the BASF Group in 2013.

Our emergency systems are checked regularly – for example, in drills with our employees, contractors and local authorities. In 2013, we further interconnected our dispatch centers in Europe. This allows us to work more closely across different sites, and to deal with alerts within the network more quickly and reliably.

We further implemented our requirements for preventive measures to protect our sites worldwide from third-party interference. In 2013, around 1,800 employees worldwide received training on the protection of knowledge and sensitive information. We also continued to expand our worldwide network to more than 500 information protection officers in the company in 2013. We regularly check the implementation of measures for the comprehensive protection of employees and the company against, for example, criminal behavior or the loss of knowledge. Human rights aspects related to site security, such as the right to liberty and security of person, form a part of the global qualification requirements for our security personnel. We obligate our contractors involved in site security to comply with human rights. For investment projects and projects in emerging markets, as well, we analyze potential risks to the safety, security and health of our employees and base our decision-making on safety and security-related aspects.

For more on emergency response, see basf.com/emergency\_response

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## Process safety and site security

- Global guideline implemented for annual review of process safety management systems
- More than 10,000 employees around the world trained in process safety in 2013
- Worldwide network of information protection officers expanded

## **Products**

We review the safety of our products from research to production and finally 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

We ensure uniformly high standards for product stewardship worldwide and our voluntary initiatives go beyond legal requirements. We monitor the implementation of our guidelines with regular audits.

We provide extensive information on our chemical products to our customers and the public 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 needs-based training in the safe use of our products, such as plastics for sensitive applications like food packaging. We continually work together with our customers on optimizing our products, keeping an eye on consumer protection criteria, as well. Furthermore, we use our Eco-Efficiency Analysis to advise our customers on the evaluation of product risks and support them in improving the CO<sub>2</sub> footprint of their products.

With our global goals for risk assessment, 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 2013, for example, we instructed chemical industry representatives on GPS in Bulgaria, Chile, the Gulf States, India, Russia and South Korea. In order to facilitate public access to information, we were involved in the setup of an ICCA online portal providing around 430 GPS safety summaries.

For more on GPS, see basf.com/gps\_e

Stations along the value chain

## **2020 Goal** Risk assessment of all products



Risk assessment of all products that we sell in quantities of more than one metric ton per year.

#### **Global goals**

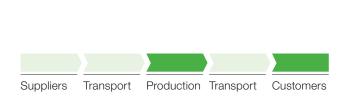
By 2020, we will conduct risk assessments for all substances and mixtures BASF sells worldwide in quantities of more than one metric ton per year. We already reached 56% of this goal in 2013 (2012: 45%). The risk associated with using a substance is the combination of its hazardous properties and its potential exposure to people and the environment.

#### **REACH** and other legal requirements

We completed the second registration phase of REACH in 2013. By the deadline of May 31, 2013, we had registered a total of 1,222 substances with the European Chemicals Agency in the first and second registration phases. We expect that the cost of implementing REACH will continue to average around €50 million per year. When it comes to REACH, we are in 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 Harmonised System of Classification and Labeling of Chemicals.

For more on auditing of suppliers, see page 90



## Product stewardship

- Global directives with uniformly high standards
- Global product strategy workshops conducted with chemical industry representatives in Bulgaria, Chile, the Gulf States, India, Russia and South Korea
- Second registration phase of REACH concluded

#### **Ecological and toxicological testing**

Before launching products on the market, we subject them to a variety of ecological and toxicological testing. We apply the most current scientific knowledge in the research and development of our products. We conduct animal studies only when they are unavoidable. 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 put these into practice whenever possible and accepted by the authorities. BASF spent €2.8 million for this purpose in 2013. We use alternative and complementary methods in more than a third of our tests. Currently, 27 alternative methods are being used in our labs and another 16 are in the development stage. In 2013, for example, we developed a test strategy that allows us to predict whether particular substances induce human skin allergies. We will apply this test strategy to classify hundreds of substances in the third registration phase of REACH, enabling us to further avoid animal testing. In addition, we developed a method together with European partners that allows us to test the neurotoxicological potential of substances on test cells grown in the laboratory. In 2013, the German Federal Ministry of Food, Agriculture and Consumer Protection awarded us the Animal Protection Research Prize for our projects on the development of alternative methods.

For more on alternative methods, see basf.com/alternative\_methods

#### Management of new technologies

New technologies such as biotechnology or nanotechnology offer solutions for key societal challenges – for example, in the areas of climate protection or health and nutrition.

Our Nanotechnology Code of Conduct sets out principles for using nanomaterials. This includes our agreement to participate in safety research on nanomaterials. Over the past years, we have conducted more than 150 toxicological and ecotoxicological studies and participated in around 30 different projects related to the safety of nanomaterials. We published the results in around 55 scientific articles as well as online. Together with partners from science, politics and industry, we concluded the NanoGEM project in 2013 in Europe, in which we examined the life cycle of functionalized nanoparticles and nanocomposite materials. One of our findings was that toxicity is determined not by the size of the particles but by the properties of the substance. We have been involved in the European Commission's NanoDefine project since 2013. In the United States, we are developing methods for the safe handling of nanomaterials along the entire value chain together with local authorities in the NanoRelease project.

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. We implemented a scorecard system to monitor the risks of working with biotechnology. It ensures compliance with standards and transparent processes at BASF.

For more on nanotechnology and the Nanotechnology Code of Conduct, see basf.com/nanotechnology

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## Use of animal studies

- Ecological and toxicological testing before our products are launched on the market
- Use of alternative and complementary methods wherever possible and accepted by the authorities
- Our projects for developing alternative methods awarded prize in 2013

## New technologies

- Use of new technologies to develop products and solutions that contribute to sustainable development
- Conclusion of NanoGEM research project and involvement in the European Union's NanoDefine project

## Environment

## **Energy and climate protection**

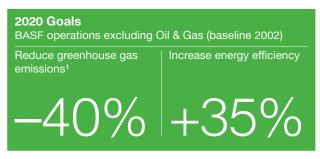
We are committed to energy efficiency and global climate protection. An important contribution to this is made by our efforts to continue reducing emissions along the value chain, and by our climate protection products. We utilize energy-efficient production processes and efficient technologies to generate steam and electricity. We have implemented a comprehensive energy management program.

#### Strategy

We want to reduce greenhouse gas emissions in our production and along the entire value chain. To this end, we have especially taken measures to reduce nitrous oxide in our production processes, and have been able to lower these emissions by 95% since 1997.

To supply our production sites with energy, we rely on combined heat and power plants with gas and steam turbines and the use of heat released by production processes. Comparisons with European emissions trading benchmarks show that our chemical plants operate at above-average efficiency. Around 50% of BASF Group emissions in 2013 resulted from steam and electricity generation in our power plants as well as in our energy suppliers' power plants.

As a company in an energy-intensive industry, our success also depends on the long-term security and competitiveness of our energy supplies. We are committed to energy management that helps us analyze and continue to improve the energy efficiency of our plants. By the end of 2015, we aim to have the energy management at our sites in Germany certified in accordance with DIN EN ISO 50001. In Ludwigshafen, we already certified the most energy-intensive BASF SE production plants in 2013. We have also already implemented these norms at other German sites. In addition, we plan to conduct this certification process at our sites around Europe. We offer our customers solutions that help prevent greenhouse gas emissions and improve energy efficiency. About a third of our total annual research spending goes toward the development of these products and the optimization of our processes.

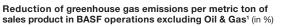


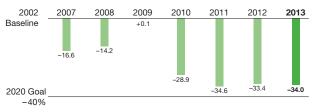
<sup>1</sup> Per metric ton of sales product

Our climate protection activities are based on comprehensive emissions controlling. We report on greenhouse gases in accordance with the Greenhouse Gas Protocol Standard, as well as the sector-specific standard for the chemical industry. According to CDP, an international organization that measures companies' environmental data, BASF is among the ten leading companies in the world in reporting on climate protection.

For more on emission certificates, see page 110

For more on climate protection, see basf.com/climate\_protection





Strategy

- We are committed to energy efficiency and global climate protection along the value chain
- We aim for certification of our energy management at German sites in accordance with DIN EN ISO 50001
- Greenhouse gas reporting in accordance with Greenhouse Gas Protocol Standard as well as sector-specific chemical industry standard

Figures for the 2011 business year and earlier were not restated according to the new accounting and reporting standards IFRS 10 and 11. For more information on our data collection methods, see page 5.

#### BASF Group's greenhouse gas emissions according to the Greenhouse Gas Protocol<sup>1</sup> (1,000 metric tons of CO, equivalents)

BASF operations including Oil & Gas	GWP factor <sup>2</sup>	2002	2012	2013
Scope 1				
CO <sub>2</sub> (carbon dioxide)	1	14,634	16,745	16,976
N <sub>2</sub> O (nitrous oxide)	310	6,407	857	789
CH <sub>4</sub> (methane)	21	244	66	73
HFC (hydrofluorocarbons) <sup>2</sup>	140-11,700	61	80	76
SF <sub>6</sub> (sulfur hexafluoride)	23,900	0	1	1
Scope 2				
CO2	1	5,243	3,977	3,987
Total		26,589	21,726	21,902
Sale of energy to third parties (Scope 1) <sup>3</sup>				
CO2	1	347	1,059	927
Total		26,936	22,785	22,829
Offsets (certificates sold) <sup>4</sup>		0	0	142
Total including offsets		26,936	22,785	22,971

<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 use.

<sup>2</sup> GWP factor: Global warming potential of the individual gases expressed as a factor of CO<sub>2</sub> emissions. The GWP factor is based on the Intergovernmental Panel on Climate Change 1995, which will be retained in 2013 for purposes of comparability. HFC (hydrofluorocarbons) are calculated using the GWP factors of the individual components.

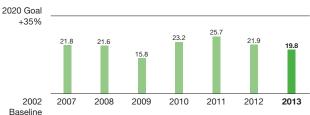
<sup>3</sup> Also includes sales to BASF Group companies; as a result, emissions reported under Scope 2 can be reported again in some cases

<sup>4</sup> Voluntary Carbon Units (VCU) certificates from measures to reduce emissions, which were sold to third parties

#### **Global goals**

By 2020, we aim to reduce our greenhouse gas emissions per metric ton of sales product by 40% compared with baseline 2002. We achieved a reduction of 34% in 2013 (2012: reduction of 33.4%). Since 1990, we have been able to lower our greenhouse gas emissions from BASF operations (excluding Oil & Gas) by 48.3% and reduce specific emissions by 74.2% overall. By 2020, we want to improve the energy efficiency of our production processes by 35% compared with 2002. We were able to achieve an increase of 19.8% in 2013 (2012: 21.9%). Our goal is to achieve a 10% reduction in carbon emissions in the natural gas transportation business – calculated by amount and distance of transported natural gas – by 2020 compared with baseline 2010. With the help of more energyefficient pipelines and the more intense use of waste heat in the transportation network, we were able to reduce carbon emissions by around 9% in 2013 (2012: a reduction of 22.1%). The year-on-year increase in specific emissions was the result of nonoptimal capacity utilization for the pipeline compressor stations.





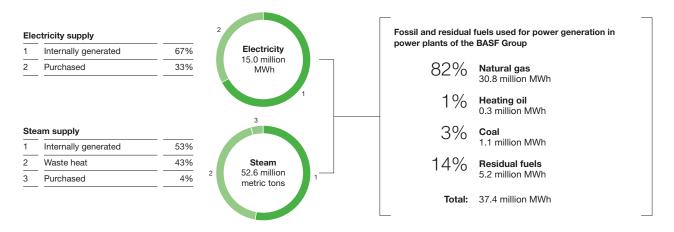
## **Reduction of carbon emissions**

- Reduction of specific greenhouse gas emissions by 34% compared with baseline 2002
- Increase energy efficiency by 19.8% compared with baseline 2002
- Reduction of carbon emissions in natural gas transport by 9.0% compared with baseline 2010

<sup>1</sup> Deviation from Reports 2008 to 2011 due to correction of previous years' energy efficiency parameter as a result of reclassification of natural gas usage

<sup>2</sup> The figures for the 2011 business year and earlier were not restated according to the new accounting and reporting standards IFRS 10 and 11. For more

information on our data collection methods, see page 5.



#### Energy supply of the BASF Group 2013

#### **Energy supply and efficiency**

With gas and steam turbines in our combined heat and power plants, we can meet 70% of the electricity demand of the BASF Group. Compared with separate methods of generating steam and electricity, we saved around 13 million MWh of fossil fuels and prevented 2.6 million metric tons of carbon emissions in 2013. The Verbund system is an important component of our energy efficiency concept: Waste heat from one plant's production process is used as energy in other plants. In this way, we saved around 17 million MWh in 2013 – this corresponds to 3.5 million metric tons' worth of prevented carbon emissions.

To even further increase the energy efficiency of our site in Lampertheim, Germany, we installed a combined heat and power plant in 2013 that supplies the entire site with power and steam. The use of this technology will enable us to decrease carbon emissions by around 14,000 metric tons per year. We rely on locally available energy sources for the supply of energy at our sites. Especially in the growing Asian market, we and our energy suppliers must make use of coal as an energy source to a certain extent, since the more climate-friendly natural gas is not available in sufficient quantities and 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. With numerous research projects, we contribute to increasing the efficiency of technologies for the use of renewable energy sources. For example, we are working on developing storage technologies that help even out the fluctuations involved in feeding electricity from renewable sources into the power grid.

#### Key indicators for climate protection and energy in BASF operations excluding Oil & Gas

	Baseline 2002	2012	2013
Greenhouse gas emissions <sup>1</sup> (million metric tons of CO <sub>2</sub> equivalents)	24.713	20.658	20.729
Specific greenhouse gas emissions (metric tons of CO <sub>2</sub> equivalents per metric ton of sales product)	0.897	0.598	0.592
Primary energy demand <sup>2</sup> (million MWh)	55.759	57.375	59.164
Energy efficiency (metric tons of sales product per MWh)	0.494	0.602	0.592

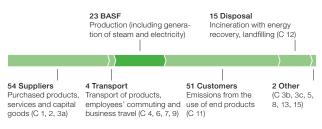
<sup>1</sup> Scope 1 and Scope 2 according to the Greenhouse Gas Protocol Standard, excluding emissions from the generation of steam and electricity for sale to third parties

<sup>2</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

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. In 2013, for example, we began exploring – together with our largest suppliers – how we can even more transparently disclose carbon emissions within the value chain and further prevent them.

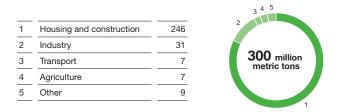
## Greenhouse gas emissions along the BASF value chain in 2013<sup>1</sup> (in million metric tons of $CO_2$ equivalents)



<sup>1</sup> According to Greenhouse Gas Protocol, Scope 1, 2 and 3 (categories within Scope 3 shown in parentheses)

We have defined climate protection products as those product groups which, compared with the alternatives, prevent greenhouse gas emissions from production and use to disposal, and whose ecoefficiency is at least as good as that of the alternatives. For example, BASF's Keropur®-brand fuel additives result in better combustion in engines. This enables an approximately 1% decrease in fuel consumption and reduces pollutants and greenhouse gases in the exhaust. Our Neopor® insulation materials help reduce carbon emissions and energy requirements in buildings. The use of climate protection products we sold in 2013 prevents the emission of 300 million metric tons of  $CO_2$  for our customers (2012: 320 million metric tons).

## Prevention of greenhouse gas emissions through the use of BASF products by sector (in million metric tons of CO, equivalents)



We generated sales of around €6.7 billion (around 9% of BASF Group sales) with our climate protection products in 2013 (2012: €7.2 billion), such as building insulation materials, plastic components for the automotive industry, and materials for wind turbines. The year-on-year decrease in sales with climate protection products resulted from lower demand in the housing and construction sector. Our goal is to continually increase the contribution of our current climate protection products, as well as of new products and solutions, to climate protection.

For more information on our emissions reporting, see basf.com/corporate\_carbon\_footprint

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## Corporate carbon footprint and climate protection products

- Comprehensive reporting on greenhouse gas emissions along the value chain
- Use of climate protection products sold in 2013 prevents emission of 300 million metric tons of CO<sub>2</sub> for our customers
- Sales of around €6.7 billion achieved with climate protection products in 2013

## Water

We use water as a coolant, solvent and cleaning agent, as well as to produce our products. We are committed to responsible water use along the entire value chain. To this end, we have set ourselves global goals.

#### Strategy

We aim to use water as sparingly as possible and further reduce emissions to water. For this, we have set out a Group directive with globally applicable standards. Water quality and availability vary substantially from region to region. We explore measures for implementing sustainable water management at sites in water stress areas.

We analyze water risks in the supply chain. We offer our customers solutions that help them to purify water, use it more efficiently and reduce pollution. As a partner in a large-scale project commissioned by the national water company, we have been installing special ultrafiltration technology in Accra, Ghana, for seawater desalination in the creation of drinking water since 2013. We started up a new production plant for water treatment chemicals in Nanjing, China, at the end of 2012. The BASF solutions Zetag<sup>®</sup> and Magnafloc<sup>®</sup> were specially designed for the solid/liquid separation process in industrial and municipal waste water treatment.

#### **Global goals**

We have set ourselves the goal of reducing emissions to water of organic substances and nitrogen by 80% by 2020 compared with baseline 2002; we want to reduce emissions of heavy metals by 60%.

Our goal is, by 2020, to reduce the withdrawal of drinking water from supply sources for production by half compared with baseline 2010. In 2013, we were able to reduce this amount by 25.3% (2012: 23.2%). We pursue the goal of establishing sustainable water management at all sites in water stress areas by 2020 by applying the European Water Stewardship (EWS)

standard set down by the European Water Partnership. We introduced this voluntary industrial standard at nearly all of our European sites in water stress areas. An external audit in 2013 awarded us gold-level certification for our extensive application of the EWS standard and water management at the production site in Tarragona, Spain. In total, around 22% of our production sites were located in water stress areas in 2013, and around 7.8% of our total water supply was abstracted from these areas. Seawater accounted for 86.9% of this total.

#### 2020 Goals Water

Reduce the use of drinking water in production processes (baseline 2010) Sustainable water management in water stress areas

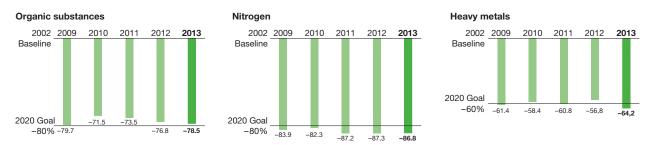
0% 100%

#### **Fewer emissions**

We want to reduce emissions of organic substances and nitrogen to water by 80% and of heavy metals by 60% compared with baseline 2002.

#### Further reduction of emissions

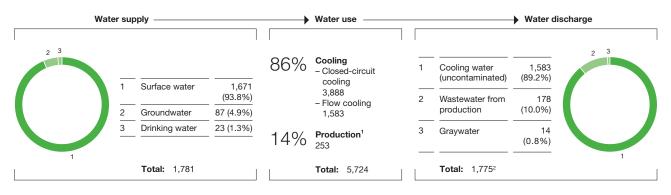
Around 192 million cubic meters of wastewater were discharged from BASF production sites in 2013 (2012: 187 million cubic meters). At 2,900 metric tons (2012: 2,800 metric tons), emissions of nitrogen (N total) to water have been reduced by 86.8% since 2002. Around 19,700 metric tons of organic substances were emitted in BASF wastewater (2012: 21,200 metric tons),



Reduction of emissions to water<sup>1</sup> (in %)

The figures for the 2011 business year and earlier were not restated according to the new accounting and reporting standards IFRS 10 and 11. For more information on our data collection methods, see page 5.

#### Water in the BASF Group in 2013 (million cubic meters per year)



<sup>1</sup> Total from production processes, graywater, rinsing and purification in production

<sup>2</sup> The difference between the volume of water supplied and discharged is mainly attributable to evaporation losses during closed-circuit cooling.

representing a reduction of 78.5% since 2002. Our wastewater contained 21.9 metric tons of heavy metals (2012: 26.2 metric tons), representing a worldwide reduction of 64.2% compared with 2002. Phosphorus emissions amounted to 339 metric tons (2012: 366 metric tons).

To avoid unanticipated emissions, we will review our water protection concepts at all production sites by 2015. We are constructing plants for the improvement of wastewater analytics at our sites in Ludwigshafen, Germany, and Geismar, Louisiana, which will help us to identify unanticipated emissions at an even earlier stage. The Ludwigshafen plant also contains special online monitoring systems that enable us to catch relevant pollutants in our wastewater even more quickly.

#### Water use

We recirculate water as much as possible in order to withdraw less from supply sources. We have recooling plants at our larger sites to reduce the temperature of the cooling water before it is discharged back into a body of water. To protect the Rhine River, we have committed to the step-by-step reduction of heat input from the Ludwigshafen site when set temperature limits are exceeded, for example as a result of long heat waves or low river levels.

The supply, treatment, transportation and recooling of water is associated with a high energy demand. By applying diverse measures, we aim to keep this as low as possible.

For more, see basf.com/water

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#### Use of water

- Gold-level certification for the application of the European Water Stewardship standard at the site in Tarragona, Spain

- Construction of plants to improve wastewater analytics at sites in Geismar, Louisiana, and Ludwigshafen, Germany

- Commitment to protecting Rhine River at Ludwigshafen site when set temperature limits are exceeded

## Air and soil

We want to further reduce emissions to air from our production 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

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.

We aim to prevent and reduce waste. We regularly carry out audits to inspect external waste management plants, ensuring that our hazardous waste is correctly disposed of.

#### 2020 Goal

Reduce emissions of air pollutants

-70% We aim to reduce air pollutants from our chemical plants by 70% compared with 2002.

#### **Emissions to air**

By 2020, we aim to decrease absolute emissions of air pollutants from our chemical plants worldwide by 70% in comparison with baseline 2002. The decline was 62.2% in 2013; we reduced emissions to 32,385 metric tons (2012: 30,581 metric tons). Emissions of ozone-depleting substances as defined by the Montreal Protocol totaled 28 metric tons in 2013 (2012: 27 metric tons), while emissions of heavy metals totaled 3 metric tons (2012: 3 metric tons). We offer our customers products that enable them to reduce emissions. In 2013, for example, we developed a catalyst for gasoline engines that, in addition to carbon monoxide, hydrocarbons and nitrogen oxides, also reduces the emission of particulate matter in traffic.

#### Waste management

In 2013, we stipulated a globally valid standard for monitoring contaminated sites and conducting remediation measures. In the selection of appropriate measures for site remediation, we work on solutions to balance costs, nature conservation and climate protection aspects, legal requirements, and increased transportation volumes. For example, we continued to advance a series of remediation measures at our sites in Switzerland in 2013.

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Waste management, BASF Group (million metric tons)

	2012	2013
Total waste generation <sup>1</sup>	2.21	2.47 <sup>2</sup>
Thereof from oil and gas exploration	0.16	0.14
Waste recovered	0.89	0.73
Recycled	0.26	0.31
Thermally recovered	0.63	0.42
Waste disposed of	1.32	1.75
In underground landfills	0.11	0.12
In surface landfills	0.65	0.80
Through incineration	0.56	0.82
Classification of waste for disposal <sup>3</sup>		
Non-hazardous waste	0.41	0.44
Hazardous waste	0.91	1.31
Transported hazardous waste	0.33	0.33

<sup>1</sup> Comprises all production waste and hazardous waste from construction activities

<sup>2</sup> The increase compared with 2012 is mainly due to construction activity at the site in Ludwigshafen, Germany.

<sup>3</sup> The classification of waste into hazardous and non-hazardous waste is performed according to local regulations.

#### Emissions to air<sup>1</sup> (in metric tons)

Air pollutants from BASF operations excluding Oil & Gas

2002 <sup>2</sup>	2010	2011	2012	2013
46,208	3,964	4,419	4,264	4,547
15,045	12,764	13,003	11,507	11,551
15,005	5,550	6,127	6,148	5,760
6,633	4,934	4,483	3,423	4,489
1,734	3,537	3,069	2,858	3,542
994	3,191	3,263	2,382	2,496
85,619	33,940	34,364	30,581	32,385
	46,208 15,045 15,005 6,633 1,734 994	46,208         3,964           15,045         12,764           15,005         5,550           6,633         4,934           1,734         3,537           994         3,191	46,208         3,964         4,419           15,045         12,764         13,003           15,005         5,550         6,127           6,633         4,934         4,483           1,734         3,537         3,069           994         3,191         3,263	46,208         3,964         4,419         4,264           15,045         12,764         13,003         11,507           15,005         5,550         6,127         6,148           6,633         4,934         4,483         3,423           1,734         3,537         3,069         2,858           994         3,191         3,263         2,382

<sup>1</sup> The figures for the 2011 business year and earlier were not restated according to the new accounting and reporting standards IFRS 10 and 11. For more information on our data collection methods, see page 5.

<sup>2</sup> Baseline

## Forecast

Opportunities and risks report

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**

We expect the global economy to continue to grow in the next two years. We see material risks in the renewed intensification of the sovereign debt crisis in Europe as well as in possibly decelerating economic growth in China. A new global economic crisis could result if market uncertainty rises again or demand is impaired more than anticipated by extensive fiscal austerity measures. Important opportunities and risks for our earnings are also associated with uncertainty regarding the development of key customer industries as well as 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>

	Outlook
Possible variations related to:	- 2014 +

Business environment and sector

Market growth	
Margins	
Competition	
Regulation/policy	

#### Company-specific opportunities and risks

Purchasing/supply chain	
Investments/production	
Personnel	
Acquisitions/cooperations	
Information technology	
Law	

#### Finance

Exchange	rate volatility	
Other final	ncial opportunities and risks	
	< 50 million € ≥ 50 million € < 100 million €	

2 100 million € < 500 million €</p>

≥ 100 million € < 500 million € ≥ 500 million €

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.

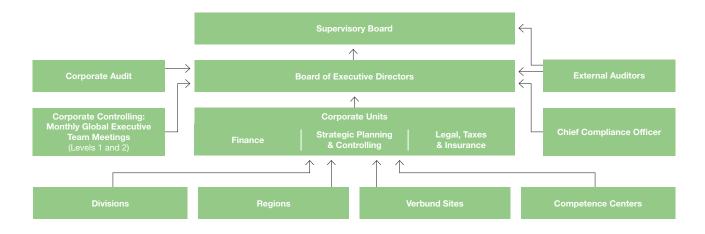
## Strategy and goals

- Detect opportunities and risks as early as possible
- Take measures to limit business losses
- Avoid risks that threaten the company's continued existence
- Create long-term value through improved managerial decisions

## **Overall assessment**

- Most significant causes of opportunities and risks are development of economy and important customer industries as well as volatility in exchange rates and margins
- Considerable risks arise from sovereign debt crisis in Europe and possible deceleration of growth in China
- No threat to continued existence of BASF Group

#### Organization of BASF Group's risk management



#### **Risk management process**

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 divisions Finance, Strategic Planning & Controlling and Legal, Taxes & Insurance, as well as the Corporate Controlling unit and the Chief Compliance Officer. They coordinate the risk management process at Group level and provide the structure and appropriate methodology. Opportunity and risk management is thus integrated in the strategy, planning and budgeting processes.
- A network of risk managers in the business and central 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.
- 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. An external auditor evaluates the establishment and suitability of an early detection system for risks.

#### 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.

## Internal control and risk management system with regard to the Group financial reporting process

- Uniform, Group-wide guidelines set accounting policies, processes and dates
- Strict adherence to principles of segregation of duties and dual control and regulation of access rights
- Annual evaluation of control environment at significant companies and units using a standardized questionnaire and of relevant processes using a central risk catalog

- A catalog of opportunity and risk categories helps to identify all relevant opportunities and risks as comprehensively as possible.
- Standardized evaluation and reporting tools are available for the identification and evaluation 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 divisions Strategic Planning & 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 unit conducts strategic opportunity/risk analyses with a tenyear assessment period. These analyses are annually reviewed during the course of the strategic controlling and are adapted if necessary.

When BASF was included in the Dow Jones Sustainability Index in 2013, the company once again received special recognition for its risk management system.

## Significant features of the internal control and risk management system with regard to the Group financial reporting process

The Consolidated Financial Statements are prepared by a unit in the corporate division Finance. BASF Group's accounting process is based on a uniform 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. Complex actuarial reports and evaluations are produced by specialized service providers or specially qualified employees.

Our 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 and 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.

In a centralized selection process, companies and units are identified 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 and units, one person is given the responsibility of monitoring the execution of the annual evaluation process.

This process consists of the following steps:

#### - Evaluation of the control environment

The 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. This is supported by sample taking.

- Identification and documentation of the control activities In order to mitigate the risks to the financial reporting processes listed in our central risk catalog, corresponding control activities are conducted and documented.

#### **Risk management process**

- Integrated process with standardized tools for identifying, assessing and reporting opportunities and risks
- Decentralized management of specific opportunities and risks
- Aggregation of opportunities and risks on a Group level
- Regular reporting on operational and strategic opportunity/risk exposure

## Annual evaluation process

- Evaluation of control environment
- Identification and documentation of control activities
- Assessment of control activities
- Monitoring of control weaknesses
- Internal confirmation of internal control system

#### - 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.

- 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 the financial reporting.

#### - Internal confirmation of the internal control system

The managing director and chief financial officer responsible for each consolidated Group company confirm to the Board of Executive Directors of BASF SE at the end of the annual cycle the effectiveness of the internal control system with regard to accounting as well as the accuracy and reliability of financial reporting.

## Short-term opportunities and risks

**Demand fluctuation due to volatility in market growth:** 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 115 to 117. In accordance with this baseline scenario, we are planning to achieve volume growth in our chemicals business in all segments. In addition to the baseline scenario, we also consider risk scenarios. These include, for example, a renewed intensification of the sovereign debt crisis in Europe, which would dampen private demand, unsettle investors and limit the ability of businesses to get refinancing. In this case, Europe would be faced with a new recession and a further increase in unemployment. Relevant risks also include an unexpectedly sharp deceleration of growth in China. Despite stabilization in the second half of 2013, there is a danger that increasing the focus of economic growth on private consumption will not occur without short-term losses. Furthermore, the course of 2013 showed that the Chinese interbank market reacts to liquidity shortages with sharp interest rate fluctuations.

A demand-driven decline in oil prices can be expected in these risk scenarios; the euro would depreciate relative to the U.S. dollar compared with our baseline scenario, since Europe is particularly exposed to debt-related risks. We consider a massive sovereign debt crisis in the United States to be unlikely.

Climatic influences can also have positive or negative effects on our crop protection business.

Margin volatility due to fluctuating raw material prices and/or fluctuating product supply: We generally anticipate stable margins in 2014. However, for some products and value chains, it is possible that margin pressure could be increased by, for example, new capacities. This would have a negative effect on our earnings.

The average oil price of Brent crude in 2013 was around \$109 per barrel, slightly lower than in the previous year. For 2014, we anticipate an average oil price of \$110 per barrel. We therefore expect the price level of the raw materials and petrochemical basic products that are important to our business to remain high. If there were a considerable decline in demand, this could lead to significant narrowing of our margins and the need to write down inventories. The influence of the oil price is reduced through the contribution of our Oil & Gas business. Earnings in this business rise by around €15 million for every \$1 increase in the average annual barrel price of Brent crude.

## **Development of demand**

- Development of demand in sales markets one of strongest drivers of opportunities and risks
- Possible negative effects on demand from intensification of sovereign debt crisis in Europe and deceleration of economic growth in China

## Margin volatility

- Possible oversupply could lead to lower margins in some value chains
- Raw material costs remain high
- If demand declines, increasing risk that raw material costs cannot be passed on to the market

**Regulation and political risks:** 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 costintensive test and registration procedures.

Other risks for us include 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 Chinese restrictions on exports of rare earths or OPEC quotas for oil production. Moreover, we are closely observing the political situation in Argentina that led to the intensification of foreign exchange restrictions in 2012.

Since December 2013, the E.U. Commission has been investigating whether the exemption of energy-intensive companies from the German Renewable Energy Act's surcharge promoting renewable energy sources ("EEG surcharge") constitutes a violation of E.U. regulations on state aid. This does not represent a material risk for the BASF Group, since we produce large portions of our electricity in our own power plants and self-generated energy is not subject to the EEG surcharge. However, the German government is considering an EEG amendment in 2014 that would partially include companies' self-generated energy in the EEG surcharge system. The regulation currently under discussion would result in substantial additional costs per year and be detrimental for our competitiveness at German production sites.

By contrast, we view Germany's decision to phase out the use of nuclear power as well as 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. Delivery bottlenecks resulting from interruptions in production or the supply chain and raw material shortages: 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 additional quantities of raw materials on spot markets. 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 non-delivery. We continuously monitor the credit risk of important business partners, both customers as well as suppliers.

**Information technology risks:** BASF relies on a number of IT systems. The nonavailability of critical IT systems and applications can have a direct impact on production and logistic processes. 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.

To minimize such risks, BASF has implemented application-specific measures 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 continuously tested and updated. 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.

## Regulation

- Risks include regulation of use of chemicals and intensification of geopolitical tensions
- Opportunities for our catalysts business from tightening automobile emissions regulations
- Energy policies result in risks and opportunities

## **Delivery bottlenecks**

- Avoidance of unplanned shutdowns through high technical standards and diversification within our global production Verbund
- Procurement risks minimized by a broad portfolio, global purchasing activities and careful selection of suppliers

Litigation and claims: 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 independent legal opinions. Furthermore, we make assumptions as to the probability of claims' success, and to which extent. The actual costs can deviate from these estimates.

We use an 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.

For more on our Group-wide Compliance Program, see page 127

#### **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:** 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 €50 million in BASF's earnings, assuming other conditions remain the same. On the production side, we mitigate foreign currency risks by having production sites in the respective currency zones.

Foreign 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:** 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 debt.

**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.

## Litigation and claims

- Limitation of legal risks with the help of an internal control system
- Estimate of monetary effects from legal disputes and proceedings as realistic as possible
- Regular employee training as part of Group-wide Compliance Program

## **Financial opportunities and risks**

- Exchange rate volatility
- Interest rate risks
- Risks from metal and raw material trading
- Liquidity risks
- Risk of asset losses
- Impairment risks
- Risks from pension obligations

**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 201 onward
 For more on the maturity profile, see the Notes to the Consolidated Financial Statements on page 197

**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 creditworthiness 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.

Long-term incentive program for 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:** 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 pension plans 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. Furthermore, new employees are almost always offered defined contribution plans. An adjustment to the interest rates used in discounting pension obligations leads immediately to changes in stockholders' equity.

#### Long-term opportunities and risks

Long-term demand development: In our "We create chemistry" strategy, we operate under the assumption that chemical production (excluding pharmaceuticals) will grow worldwide by an average of 4% annually until 2020, faster than global gross domestic product and also somewhat more rapidly than in the previous 10 years. We want our sales to increase significantly faster, by an average of 6% annually. We plan to accomplish this with our broad, market-oriented portfolio, which we will further strengthen in coming years through investments in new production capacity, R&D activities and acquisitions. Our ambitious goal for 2020 is thus to reach sales of €110 billion and we strive to increase income from operations before depreciation and amortization (EBITDA) to €22 billion.

## Exchange rate volatility

- Exchange rate volatility a significant risk factor; opportunities and risks in particular from U.S. dollar exchange rate fluctuations
- Production-related foreign currency risks limited by having sites in the respective currency zones
- Net position in foreign-currency-denominated receivables and liabilities as well as planned foreign-currency transactions hedged with derivatives

## **Risk of asset losses**

- Export credit insurance and investment guarantees to hedge country-related risks
- Reduction of credit risks through credit checks and transaction limits
- No concentration of default risks on receivables at any individual business partner
- Use of credit insurance and bank guarantees

If the continuing sovereign debt crises result in a slackening of global economic growth, these goals could prove to be 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.

C For more on the "We create chemistry" strategy, see page 21 onward

**Development of the competitive and customer landscape:** We expect competitors from emerging markets to become increasingly important in the years ahead. Furthermore, we anticipate 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 opportunities to stand out from our competitors in the long term. For example, we will complete the divestiture of our natural gas trading and storage business as part of an asset swap with Gazprom, which will take retroactive financial effect as of April 1, 2013.

In order to remain competitive, we continuously improve our operational excellence. Our strategic excellence program, STEP, also contributes to this. Starting at the end of 2015, we expect the more than 100 individual projects to contribute around €1 billion to our earnings each year.

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:** We are observing a trend toward more sustainability in our customer industries. We want to take advantage of the resulting opportunities with innovations – particularly in the growth fields we have identified. These include Batteries for Mobility, Functional Crop Care to improve agricultural efficiency, solutions for water treatment and technologies for the use of renewable energy sources, such as wind, solar thermal and photovoltaic power. New products launched on the market between 2011 and 2020 are expected to contribute  $\in$ 30 billion to sales in 2020. To achieve this goal, we also aim to invest around 3% of our sales (excluding Oil & Gas) in research and development. We also address the risk of the technical or economic failure of research and development projects by maintaining a balanced and diversified project portfolio, as well as through professional project management (R&D controlling).

We optimize the effectiveness and efficiency 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.

 $\square$  For more on innovation, see page 30 onward

**Portfolio development through investments:** 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 one-third of our investment volume between 2011 and 2020 will be spent in emerging markets.

Our decisions on the type, size and locations of our investment projects are based on assumptions related to the longterm development of markets, margins and costs, as well as raw material availability and country, currency and technology risks. Opportunities and risks arise when real developments deviate from our assumptions, particularly with respect to demand development and intensity of competition.

In the implementation phase, we make use of our experience in project management and controlling in order to minimize technical risks as well as the risk of cost overruns or missed deadlines. There are a constructed on the second second

## Long-term development

- Annual average growth of 4% in global chemical production expected; growth risks if long-lasting stagnation results from sovereign debt crises
- BASF aims for above-average growth
- Active portfolio management: taking advantage of opportunities with targeted investments in production capacity, R&D activities and acquisitions; minimizing risks with divestitures

## Innovation

- Major component of our growth strategy
- Risks minimized through Know-How Verbund as well as continuous review of efficiency, chances of success and operating environment of research projects
- Ongoing dialog with partners and customers to improve chances of success

Acquisitions: 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 cyclicality 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.  $\square$  For more on our acquisitions, see page 36 onward

**Recruitment and long-term retention of qualified employees:** Global competition for highly qualified employees and leaders has grown in recent years; in the medium to long term, this will likely be further intensified by demographic change. As a result, there is an increased risk that job vacancies could not be filled with suitable applicants, or only after a delay.

Business could be negatively affected in the medium and long term by the loss of expertise in North America and Europe due to disproportionately high retirement numbers, as well as by the challenge arising from additional recruitment demand in Asia arising from the growth we strive to achieve. We address these risks with our global programs Generations@Work and Diversity + Inclusion, the Employee Development project, employer branding and a greater emphasis on further developing our employees as well as additional regional initiatives. With these measures, we increase BASF's attractiveness as an employer and retain our employees in the long term. ()

 $\bigcap$  For more on the individual initiatives and our goals, see page 39 onward

Sustainability: BASF is committed to integrating environmental protection and socially responsible conduct into its business activities. Infringements of our voluntary commitments and legal violations represent a reputational risk and could lead to operational or strategic risks. Before acquiring a company, we take into account its focus on sustainability and we consider this in the acquisition process. We use the results of our global issue management for sustainability to initiate change processes in the company in order to be prepared for any potential risks and to exploit opportunities. We have established global monitoring systems which also include our supply chain - these enable us to ensure adherence to laws and our voluntary commitments in the areas of environment, safety, security and health as well as to labor and social standards. In order to assure society's acceptance of our business activities, we engage in ongoing dialog with relevant stakeholders. The Nano Dialog Forum is an example. Ultimately, however, residual risks remain in all entrepreneurial activities which even comprehensive risk management cannot exclude. 🚱

For more on sustainability, see page 27 onward For more on monitoring tools, see page 22 onward

## Investments

- Investment decisions on the basis of assumptions regarding development of markets, margins and costs, as well as raw material availability and country, currency and technology risks
- Opportunities and risks arising from deviating development
- Risks in project implementation minimized by making use of experience in project management and controlling

## Personnel

- Intensified global competition for highly qualified specialist and management candidates
- Risk of loss of expertise from numerous retirements
- More effective personnel recruitment and retention with the help of various measures

## Economic environment in 2014

The global economy will likely grow by 2.8% in 2014, only somewhat faster than in the previous year (+2.3%). We expect growth to remain weak in the eurozone. The global economy will continue to face significant risks. At 4.4%, global chemical production will presumably grow at the previous year's rate (+4.6%) due to the slower momentum expected for China. For 2014, we assume an average price for Brent crude oil of \$110 per barrel and an exchange rate of \$1.30 per euro. Exchange rate volatility in the emerging markets will remain high.

We expect the economy in the **European Union** to bottom out and grow slowly in 2014. While Germany, the United Kingdom, and the northern and eastern E.U. countries will presumably grow faster than one percent, we anticipate mostly stagnating economic development for the countries in Southern Europe. Our forecast anticipates a continuing reform and consolidation process in Europe and no renewed escalation of the sovereign debt crisis.

For the **United States**, we expect the overall economy to grow somewhat faster than in 2013. Economic uncertainty with regard to future austerity measures decreased following the settlement of the budget dispute. Low energy prices and continued improvement in the labor market will favor moderate growth of the U.S. economy.

#### **Outlook for gross domestic product 2014** (Real change compared with previous year)

World	2.8%
European Union	1.0%
United States	2.5%
Asia (excl. Japan)	5.8%
Japan	1.5%
South America	2.6%

#### Trends in gross domestic product 2014–2016 (Average annual real change)

3.0%
1.4%
2.5%
6.2%
1.2%

Economic growth in **Asia (excluding Japan)** in 2014 is likely to match prior-year levels. Based on China's economic policy to decrease dependence on investment and export, we expect growth there to be somewhat weaker. By contrast, we anticipate stronger growth on average in India and the other emerging markets due to increased competitiveness arising from the depreciation of their currencies.

## We expect the following developments in 2014:

- Global economic growth at 2.8%, only somewhat faster than in 2013 (+2.3%)
- Global economy continues to face substantial risks
- Currency volatility remains high in emerging markets
- Bottoming out and weak growth of gross domestic product in European Union (+1.0%)
- U.S. growth at 2.5%, slightly up from prior year; growth in Asia (excluding Japan) at prior-year level (+5.8%); somewhat slower growth in China (+7.0%); stable growth in Japan (+1.5%) and South America (+2.6%)
- Oil price to average \$110 per barrel for the year
- Average exchange rate of \$1.30 per euro

Japan is expected to largely maintain its pace of expansion in 2014. Sales tax increases planned for the spring will dampen growth, but this will be partly offset by positive fiscal stimulus measures.

For **South America**, we assume that growth rates will remain around the same level as 2013. We anticipate greater, export-led demand owing to brightened global economic prospects. Domestic demand in Brazil will remain subdued as a result of inflationary tendencies and increasing interest rates.

#### Outlook for key customer industries

Considering the general economic upswing forecasted, we expect higher growth rates in global industrial production than in the previous year (2014: +3.7%; 2013: +2.5%). Industrial production in the emerging markets will likely continue to grow significantly faster (+5.2%) than in industrialized countries (+2.3%).

We expect the **transportation** sector to grow considerably faster than in the previous year. In the Asian emerging markets and in Eastern Europe, we forecast a significant increase in automotive production. In Western Europe, however, the automotive industry is likely to further shrink, but at a slower rate than in the previous year.

Growth in the global **energy and resources** sector is expected to be higher than in 2013. We anticipate a somewhat stronger increase in the demand for energy and resources as a result of accelerating growth in industrial production. In the **construction** industry, we also expect a slight upturn. After a major slowdown in construction activity in Europe in recent years, we expect the market to shrink only slightly overall in 2014. However, the differences within the European Union will still be great: We predict a continuing decline in Spain, Italy and France, whereas we anticipate growth in Germany, the United Kingdom and Northern Europe. The upturn in the American housing market will likely continue. In the emerging markets of Asia and in South America, high growth rates are expected in infrastructure investments.

We expect the **consumer goods** industry to grow faster in 2014 than in the previous year. Production is likely to increase slightly in industrialized countries, with especially positive momentum coming from Japan and the United States. By contrast, we anticipate only a slight increase in Europe. Growth in the emerging markets is expected to moderately accelerate. We anticipate robust growth overall, especially in the electrical and textile industries, whereas production in the paper industry will likely increase more moderately.

We forecast significant growth in the **electronics** industry, which is typically very cyclical. We expect the electronics industry to enjoy strong growth, especially in the emerging markets of Asia but also in Japan and the United States. In Europe, however, only slight growth is predicted.

We expect the **health and nutrition** segment to continue to grow solidly in the emerging markets in 2014. We anticipate high growth rates in the emerging markets, but not significantly higher than in the previous year. However, we expect growth to accelerate in the industrialized countries.

We foresee robust production growth in **agriculture**, matching the level of the previous year.

## We expect the following developments in key customer industries in 2014:

- At 3.7%, growth in global industrial production above previous year's level (+2.5%)
- Transportation: significantly stronger growth than in 2013
- Energy and resources: growth marginally ahead of the previous year
- Construction: slight upturn in growth
- Consumer goods: stronger growth; robust growth in the electrical and textile industries
- Electronics: considerable acceleration in growth
- Health and nutrition: continuing solid growth
- Agriculture: growth at previous year's level

#### Outlook for the chemical industry

We anticipate growth in chemical production (excluding pharmaceuticals) of 4.4% in 2014 (2013: 4.6%). Rising demand in our customer industries will presumably lead to solid demand for chemical industry products. For the emerging markets, we anticipate high growth rates that are nevertheless somewhat lower than in the previous year (+6.3%) due to the expected macroeconomic consolidation in China, the world's largest chemical market. Chemical production in the industrialized countries will likely grow somewhat faster than in 2013 (+1.9%).

We do not anticipate widespread improvement in the chemical industry in the **European Union** in 2014. While production in Spain and Italy will likely stagnate or slightly decrease, we expect slow growth in Germany, France and the United Kingdom.

Due to robust growth in the automobile industry, the construction sector and other key customer industries, we anticipate similarly high growth rates in chemical production in the **United States**, as in 2013. The chemical industry in the United States will increasingly benefit from low energy and raw material costs.

In **Asia (excluding Japan)**, the construction sector and the automotive, electronics and consumer goods industries will create a solid demand for input from the chemical industry in 2014. Nonetheless, we assume that growth will be somewhat weaker compared with the previous year as a consequence of the consolidation expected in China.

For **Japan**, we anticipate faster growth in the chemical industry due to the higher growth rates forecasted for industrial production.

We expect chemical production in **South America** to slightly accelerate in 2014. Brazil, the largest market in the region, will likely see only minimal growth and remain at a rate below the country's long-term average. The environment will continue to be challenging in Argentina. Stronger growth impetus will probably come from Chile and Colombia.

## Outlook chemical production 2014 (excl. pharmaceuticals) (Real change compared with previous year)

World	4.4%
European Union	1.1%
United States	2.8%
Asia (excl. Japan)	7.2%
Japan	2.5%
South America	2.4%

Trends chemical production 2014–2016 (excl. pharmaceuticals) (Average annual real change)

4.6%
1.3%
2.9%
7.3%
1.6%
3.0%

## We expect the following developments in the chemical industry in 2014:

- Stable growth in global chemical production (2014: +4.4%; 2013: +4.6%)
- European Union: no widespread improvement (+1.1%)
- United States: at +2.8%, growth rates comparable with previous year; robust growth in key customer industries
- Asia (excluding Japan): somewhat weaker growth (+7.2%) due to anticipated consolidation in China
- Japan: growth at 2.5%, higher than in previous year
- South America: slight recovery (2.4%)

## Outlook 2014

The world economy is expected to grow slightly faster in 2014 than in 2013, despite continuing volatility. For the global chemical industry, we anticipate growth rates comparable with the previous year's level. We forecast somewhat higher growth in key customer industries such as the transportation, consumer goods and electronics industries. This will likely have a positive effect on our business.

Overall, we expect to perform well in a market environment that remains challenging in 2014. We aim to increase our sales volumes excluding the effects of acquisitions and divestitures. Nonetheless, sales are likely to decline slightly compared with 2013, due to the divestiture of the gas trading and storage business planned for the middle of 2014. We expect a slight increase in income from operations before special items, especially as a result of considerably higher contributions from the Performance Products and Functional Materials & Solutions segments. We aim to earn a high premium on our cost of capital once again in 2014.

As presented in detail on pages 115 to 117, we anticipate an increase in global economic growth (+2.8%) and industrial production (+3.7%) in 2014. For the chemical industry, we expect a growth rate of +4.4%, comparable with the level of 2013. We assume an average price for Brent crude oil of \$110 per barrel and an average exchange rate of \$1.30 per euro.

#### Sales and earnings forecast for the BASF Group

The divestiture of the gas trading and storage business planned for the middle of 2014 will presumably reduce BASF Group sales considerably in 2014. However, we only expect a slight decrease in sales overall as a result of the slight rise in sales anticipated for the chemicals business<sup>1</sup> and significant sales growth in the Agricultural Solutions segment. We want to slightly increase income from operations before special items. We anticipate a significant earnings improvement in the Performance Products and Functional Materials & Solutions segments.

We predict considerably higher income from operations for the BASF Group than in 2013. Special income arising from the planned divestiture of our gas trading and storage business is expected to make a significant contribution here. We aim to considerably increase income from operations after cost of capital and therefore earn a high premium on our cost of capital.

The significant risks and opportunities which could affect the attainment of our forecast are explained on pages 106 to 114.

## Sales and earnings forecast for the segments

We strive to slightly increase sales in the **Chemicals** segment. In the Petrochemicals and Monomers divisions, we anticipate slight sales growth. Sales in the Intermediates division are likely to rise considerably. We expect higher sales volumes in the Monomers division, particularly for isocyanates, while the startup of new plants will contribute to sales growth in the Petrochemicals division. We forecast higher demand for the Intermediates division from the following key industries: automotive, crop protection and textile fibers. Overall, income from operations before special items is expected to be slightly below the 2013 level due to startup costs for several plants that will begin operations.

In a market environment that continues to be challenging, we aim to slightly increase sales in the **Performance Products** segment through organic growth. In the Dispersions & Pigments division, we anticipate higher demand from two key industries: automotive and construction. We also expect higher sales volumes in the Care Chemicals and Nutrition & Health divisions. Sales prices are likely to remain under pressure. We want to increase the capacity utilization of our existing plants and achieve high utilization of new plants, such as for superabsorbents and dispersions, from the start. We anticipate income

## Outlook 2014

- Somewhat faster growth expected for global economy despite continuing volatility
- BASF business to perform well in market environment that remains challenging
- Increase in sales volumes targeted, excluding effects of acquisitions and divestitures
- Sales likely to be slightly below 2013 levels, due to divestiture of gas trading and storage business planned for middle of 2014
- Slight increase in income from operations (EBIT) before special items targeted
- EBIT expected to considerably exceed 2013 level thanks to special income from divestiture of gas trading and storage business
- Considerable increase in EBIT after cost of capital forecasted

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

#### Forecast by segment<sup>1</sup> (million €)

	Sales		Income from operations (EBIT) before special items	
	2013	Forecast 2014	2013	Forecast 2014
Chemicals	16,994	slight increase	2,182	slight decline
Performance Products	15,534	slight increase	1,365	considerable increase
Functional Materials & Solutions	17,252	slight increase	1,070	considerable increase
Agricultural Solutions	5,227	considerable increase	1,222	slight increase
Oil & Gas	14,776	considerable decline	1,969	slight increase
Other	4,190	considerable decline	(618)	slight decline
BASF Group	73,973	slight decline	7,190	slight increase

<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%).

from operations before special items considerably above the level of 2013. Strict cost discipline and respositioning measures to increase competitiveness in all areas will contribute to this.

In the **Functional Materials & Solutions** segment, we anticipate higher demand from our key customer sectors, especially from the automotive and construction industries. Sales volumes of our innovative specialties and system solutions are therefore likely to rise considerably. While we forecast a slight sales increase in the Catalysts division and a considerable increase in sales in the Coatings and Performance Materials divisions, we are expecting sales in the Construction Chemicals division to match the 2013 levels as a result of portfolio effects. Overall, we strive to increase sales slightly and income from operations before special items considerably, boosted especially by volumes.

In the **Agricultural Solutions** segment, we will continue our strategy of profitable growth with innovative products and solutions. We expect continuing high exchange rate volatility in our most important growth markets. Prices for agricultural products are likely to be lower than in 2013, while nevertheless remaining above the averages of the past five years. We anticipate significant sales growth and a slight increase in income from operations before special items.

We expect sales in the **Oil & Gas** segment to be significantly below the 2013 level due to the divestiture of the gas trading and storage business planned for the middle of 2014. For income from operations before special items, we anticipate a slight increase. The first all-year inclusion of the Norwegian activities acquired from Statoil ASA and the further expansion of Achimgaz production will drive this increase. We also expect to be able to resume onshore production in Libya. The asset swap planned with Gazprom will have a negative effect on income from operations before special items due to the missing contributions from the current business to be disposed of in 2014.

## Planned capital expenditures by segment 2014–2018

1	Chemicals	33%	
2	Performance Products	15%	
	Functional Materials &		
3	Solutions	12%	Ę
4	Agricultural Solutions	7%	
5	Oil & Gas	20%	
6	Other (infrastructure, R+D)	13%	



#### Planned capital expenditures by region 2014–2018

1	Europe	49%
2	North America	25%
3	Asia Pacific	18%
4	South America, Africa, Middle East	4%
5	Site alternatives currently being investigated	4%
_		



For **Other**, we expect sales to decrease significantly and income from operations before special items to decrease slightly in 2014. Lower sales for precursors and the discontinuation of compensatory payments from the divestiture of the fertilizer business will contribute to this.

#### Investment planning

To enhance our chemical activities, we are planning capital expenditures of  $\in$ 30 billion to  $\in$ 35 billion for the period between 2011 and 2020; more than a third of this sum will be invested in emerging markets, further strengthening our presence in these growth markets.

In particular, we are already planning or carrying out the following major projects:

#### Capital expenditures: selected major projects

Location	Project	
Camaçari, Brazil	Construction: production complex for acrylic acid and superabsorbents	
Chongqing, China	Construction: MDI plant	
Geismar, Louisiana	Construction: formic acid plant	
Ludwigshafen, Germany	Construction: TDI plant	
	Replacement: nitric acid plants	
Ludwigshafen and Schwarzheide, Germany	Expansion of capacities for F 500 <sup>®</sup> and Xemium <sup>®</sup> fungicides	
Shanghai, China	Construction: Ultramid <sup>®</sup> plant	
	Construction: coating resins	
Środa Śląska, Poland	Construction: mobile emissions catalysts plant	
Theodore, Alabama	Construction: chelating agents	
	·	

In the Oil & Gas segment, our investments of around €4 billion by 2018 will focus mainly on the development of proven gas and oil deposits in Russia, Norway and Argentina, as well as the exploration of new oil and gas reserves.

For 2014, we plan investments of around  $\in$ 4.4 billion<sup>1</sup>, particularly for the major projects named above.

#### Dividends

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.

 $\bigcap$  Information on the proposed dividend can be found from page 12 onward

#### Financing

The goals of our financing policy are securing liquidity at all times, limiting risks associated with financing and optimizing our cost of capital. We aim to maintain at least a solid A rating.

Cash outflows are expected to result from the scheduled repayment of bonds with a total volume equivalent of around €1,250 million. To refinance mature bonds and to optimize our maturity profile, we will continue to issue medium to long-term corporate bonds and make use of our commercial paper program. Our access to the capital markets allows us to benefit from attractive conditions for flexible financing for the BASF Group.

 $\square$  Information on our financing policies can be found on page 56

#### Events after the reporting period

There have been no significant changes in the company's situation or market environment since the beginning of the 2014 business year.

## Key investments in 2014

- Construction of a TDI plant in Ludwigshafen, Germany
- Construction of an MDI plant in Chongqing, China
- Construction of production complex for acrylic acid and superabsorbents in Camaçari, Brazil
- Development of Edvard Grieg and Knarr oil deposits in Norwegian North Sea
- Field development of Achimov formation in Siberia, Russia

## **Dividends and financing**

- Annual year-on-year dividend increase targeted
- Targeted rating: at least a solid A
- Flexible use of attractive capital market conditions; continued issue of medium to long-term bonds and use of commercial paper program

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