

# BASF Factbook 2014

We create chemistry



 **BASF**  
The Chemical Company

Published in July 2014

The adidas Boost running shoe features BASF's Infinergy™. This innovation is centered on a novel cushioning material which consists of a revolutionary polyurethane system which offers superior cushioning, optimal fit and temperature independence. The illustrated sports apparel also shows another BASF product PolyTHF® for spandex fibers. The advantage of Spandex is its elasticity, making spandex containing clothes very comfortable to wear.

## Investment highlights

**No. 1 chemical company** – uniquely positioned with broad market access, portfolio of technologies and expertise

**Superior growth opportunities:** innovation, sustainability and emerging markets

Competitive advantage based on **Verbund concept** and operational excellence

**Long-term value creation** based on a sound balance sheet and financial strength

**→ We create chemistry  
for a sustainable future**

### Forward-looking statements

This Factbook contains forward-looking statements. These statements are based on current estimates and projections of BASF management and currently available information. They are not guarantees of future performance, involve certain risks and uncertainties that are difficult to predict, and are based upon assumptions as to future events that may not be accurate. Many factors could cause the actual results, performance or achievements of BASF to be materially different from those that may be expressed or implied by such statements. BASF does not assume any obligation to update the forward-looking statements contained in this Factbook.

For further information on opportunities and risks, please refer to the BASF Report 2013 (opportunities and risks report, pages 106-114).

## Dear Investors and Analysts,

I am pleased to share with you the eighth edition of our annual BASF Factbook. It has become a key part of our ongoing communication with the capital markets and is a reflection of our commitment to transparency and openness. Once again we hope you will find it to be a useful tool to better understand BASF's 'We create chemistry' strategy, our recent performance and our commitment for a sustainable future.

In 2013, we were able to increase sales and earnings compared with the previous year, thus attaining our goal. It was a demanding year, with the industry facing strong headwinds. This was compounded by considerably negative currency effects in numerous emerging markets and Japan. Nevertheless, we sold more, worked more closely with our customers and enhanced our portfolio.

While focusing on our customers, we do not forget to optimize our operations. Our operational excellence program STEP has already delivered over €600 million in annual savings by the end of 2013 compared to the base year 2011.

In the Performance Products segment, we are optimizing our portfolio in all operating divisions to adapt to changing market requirements. Besides, we acquired Henkel's detergents enzyme business as well as Verenum, an enzyme technology company, to further strengthen our portfolio within Performance Products. We believe that these measures will help us become even more competitive, streamlined and focused. In this edition, you will find a comprehensive overview of our measures in the Performance Products segment.

In Oil & Gas, we have set course for future growth by acquiring shares in producing fields in the North Sea from Statoil. We are in the process of closing the asset swap with Gazprom and have optimized our portfolio by divesting operations in the North Sea. In addition, we are in the process to divest our participations in the Verbundnetz Gas Aktiengesellschaft (VNG).

Research and development continues to be an essential part of our 'We create chemistry' strategy. In 2013, we had more than 3,000 research projects in the pipeline and filed more than 1,300 new patents. In total, over 10,000 employees are contributing to this success. As a result of these activities, we generated €8 billion in sales with products introduced to the market in the last five years. And we continue to invest in the future by stepping up the R&D budget to over €1.8 billion this year.

We are further investing in organic growth. We are considering to strengthen our North American operations by entering into a joint venture with Yara to build a world-scale ammonia plant on the U.S. Gulf Coast. Additionally, we plan to build a methane-to-propylene complex in the USA to satisfy our captive requirements for propylene. This would represent the single largest plant investment in the history of the company.



Last May, we put these investments into perspectives at our 'Chemicals Day' in London, highlighting also our Verbund's strengths and our growth plans in emerging markets. You will find a summary in this report.

We see BASF uniquely positioned to continue to deliver profitable growth in the future. The 'We create chemistry for a sustainable future' strategy is BASF's answer to move the company further ahead. We have set ourselves ambitious targets, which are demanding in a challenging macroeconomic environment. However, we remain focused on implementing our strategic levers to achieve our goals.

The management team and I look forward to speaking with you during our roadshows, investor days, and quarterly results presentations. We value your input and how you view BASF's path forward. We see significant opportunities ahead for BASF and we remain committed to delivering long-term sustainable value for all stakeholders.

Best regards,

**Kurt Bock**

Chairman of the Board of Executive Directors of BASF SE  
Ludwigshafen, July 2014



# **BASF – The Chemical Company**

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## **Business Segments**

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## **Financials**

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# 3

## 1.1 At a glance

BASF today: We create chemistry for a sustainable future

**BASF is the world's leading chemical company. Our broad portfolio is arranged into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. As a reliable partner, we innovate for our customers to be more successful in virtually all industries. Our high-value products and sustainable solutions play an important role in finding answers to global challenges such as climate protection, energy efficiency, nutrition and quality of life.**

### BASF key facts

- More than 112,000 employees worldwide – thereof around 10,650 in research and development (R&D)
- Customers in around 200 countries and in virtually all industries
- Within the top three market positions in about 75% of our businesses
- Unique Verbund concept: Production plants linked intelligently to save resources and energy; six world-scale Verbund sites
- Know-how Verbund with around 70 major R&D centers and around 3,000 research projects with customers, science and partners; 1,300 new patents filed in 2013
- Broad portfolio of know-how and technologies

### Key figures

|                             |           | 2013 |
|-----------------------------|-----------|------|
| Sales                       | billion € | 74.0 |
| EBITDA                      | billion € | 10.4 |
| EBIT before special items   | billion € | 7.2  |
| Net income                  | billion € | 4.8  |
| Operating cash flow         | billion € | 7.9  |
| Earnings per share (EPS)    | €         | 5.27 |
| Adjusted EPS                | €         | 5.37 |
| Dividend per share          | €         | 2.70 |
| Dividend yield <sup>1</sup> | %         | 3.48 |

<sup>1</sup> As of December 31, 2013

### BASF – Well-balanced portfolio: five segments

(Percentage of sales 2013<sup>2</sup>)

#### Chemicals

23%

- Petrochemicals
- Monomers
- Intermediates

#### Performance Products

21%

- Dispersions & Pigments
- Care Chemicals
- Nutrition & Health
- Paper Chemicals
- Performance Chemicals

#### Functional Materials & Solutions

23%

- Catalysts
- Construction Chemicals
- Coatings
- Performance Materials

#### Agricultural Solutions

7%

- Crop Protection

#### Oil & Gas

20%

- Exploration & Production
- Natural Gas Trading

<sup>2</sup> Sales in "Other" –6%

### BASF history: Successful tradition

Since 1865, we have been shaping the future with chemistry and combining innovation with tradition. We are proud of who we are and what we do.

**BASF – The Chemical Company. Chemistry is our strength. It makes us and our customers successful, today and in the future.**



**1865-1901** Friedrich Engelhorn founds Badische Anilin & Soda Fabrik to produce coal tar dyes. Soon thereafter, the company gains a leading position in the world dyes market with methylene blue, alizarin and indigo.



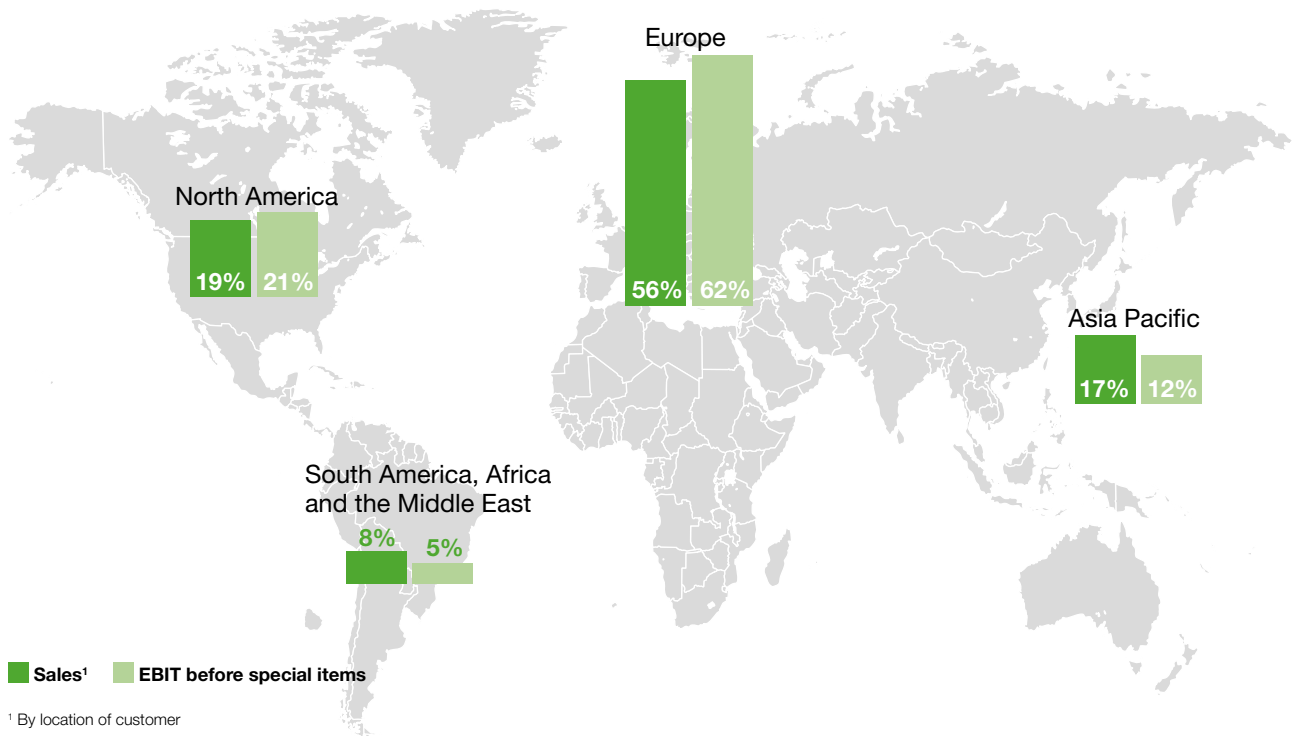
**1901-1925** The synthesis of ammonia by the Haber-Bosch process paves the way for the production of synthetic nitrogen fertilizers. In 1919, the Nobel Prize in Chemistry is awarded to Fritz Haber.



**1925-1945** BASF becomes part of IG Farbenindustrie AG. Advances in high-pressure technology enable the production of synthetic gasoline and rubber and products from acetylene. In 1931, the Nobel Prize in Chemistry is awarded to Carl Bosch.

**1945-1953** Reconstruction of BASF factory after severe damage during the Second World War. BASF re-established as an independent company in 1952.





**BASF sales by industry**

(Direct customers, percentage of sales 2013)

|                |  |               |   |
|----------------|--|---------------|---|
| <b>&gt;15%</b> | – Chemicals and plastics<br>– Energy and resources | <b>5-10%</b>  | – Agriculture<br>– Construction         |
| <b>10-15%</b>  | – Consumer goods<br>– Transportation               | <b>&lt;5%</b> | – Health and nutrition<br>– Electronics |

**Regional split 2013**

(Million €)

|                                    | Sales by location of customer | EBIT before special items |
|------------------------------------|-------------------------------|---------------------------|
| Europe                             | 41,221                        | 4,422                     |
| Thereof Germany                    | 14,446                        | 1,854                     |
| North America                      | 14,272                        | 1,539                     |
| Asia Pacific                       | 12,450                        | 842                       |
| South America, Africa, Middle East | 6,030                         | 387                       |
| <b>Total</b>                       | <b>73,973</b>                 | <b>7,190</b>              |



**1953-1965** Germany's economic miracle paves the way for the plastics era. BASF expands into new markets with products such as polystyrene, Styropor®, nylon and polyethylene.



**1965-2004** BASF develops into a global player with production sites in Europe, North and South America and Asia.

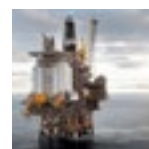
**2004-2012** BASF is the world's leading chemical company. In 2005, the new Verbund site in Nanjing, China, begins operation. It represents the largest investment project in BASF's history.

In 2006, BASF buys the USA-based Engelhard Corporation, its biggest-ever acquisition. In 2008, BASF is converted into a European Company (SE).



**2012-2014** A series of technology-driven acquisitions in batteries, omega-3 fatty acids, enzymes and seed treatment strengthens BASF's position in important growth fields.

Major transactions in the field of Oil & Gas. BASF acquires producing fields from Statoil in Norway and is in the process of closing the asset swap with Gazprom.



## 1.2 Management Board

The Board of Executive Directors of BASF SE comprises eight members



**Dr. Kurt Bock**

Chairman of the Board of Executive Directors; 56, with BASF for 23 years

**Responsibilities:** Legal; Taxes & Insurance; Strategic Planning & Controlling; Communications & Government Relations; Global Executive Human Resources; Investor Relations; Compliance



**Dr. Martin Bruder Müller**

Vice Chairman; 53, with BASF for 26 years, based in Asia

**Responsibilities:** Performance Materials; Greater China & Functions Asia Pacific; South & East Asia, ASEAN and Australia/New Zealand; Corporate Technology & Operational Excellence



**Dr. Hans-Ulrich Engel**

Chief Financial Officer; 55, with BASF for 26 years, based in the United States

**Responsibilities:** Finance; Catalysts; Corporate Controlling; Corporate Audit; Information Services & Supply Chain Operations; Market & Business Development North America; Regional Functions North America



**Michael Heinz**

50, with BASF for 30 years

**Responsibilities:** Dispersions & Pigments; Care Chemicals; Nutrition & Health; Paper Chemicals; Performance Chemicals; Advanced Materials & Systems Research; Perspectives



**Dr. Andreas Kreimeyer**

Research Executive Director; 59, with BASF for 28 years

**Responsibilities:** Crop Protection; Coatings; Biological & Effect Systems Research; BASF Plant Science; BASF New Business; Region South America



**Dr. Harald Schwager**

54, with BASF for 26 years

**Responsibilities:** Oil & Gas; Construction Chemicals; Procurement; Region Europe



**Wayne T. Smith**

54, with BASF for 10 years

**Responsibilities:** Petrochemicals; Monomers; Intermediates; Process Research & Chemical Engineering



**Margret Suckale**

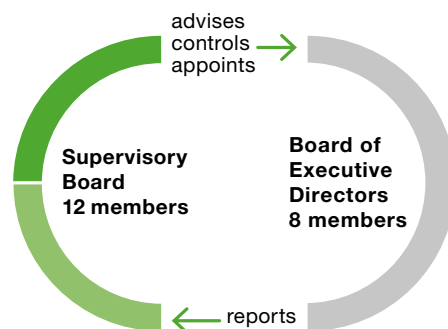
58, with BASF for 5 years

**Responsibilities:** Engineering & Maintenance; Environment, Health & Safety; European Site & Verbund Management; Human Resources

### Two-tier management system of BASF SE

Principle of parity between shareholder representatives and employee representatives.

- The six shareholder representatives are elected by the Annual Shareholders' Meeting for a term of four complete financial years.
- The six employee representatives are appointed directly by the representative body of the employees, the BASF Europa Betriebsrat, also for a term of four complete financial years.





## BASF's Supervisory Board<sup>1</sup>

| Shareholder representatives  |   |
|--|---|
| <p><b>Dr. Jürgen Hambrecht</b><br/>Chairman of the Supervisory Board of BASF SE</p>                                | <p><b>Michael Diekmann</b><br/>Vice Chairman of the Supervisory Board of BASF SE. Chairman of the Board of Management of Allianz SE</p>   |
| <p><b>Dame Alison J. Carnwath DBE</b><br/>Senior Advisor at Evercore Partners</p>                                  | <p><b>Franz Fehrenbach</b><br/>Chairman of the Supervisory Board of Robert Bosch GmbH and Managing Partner of Robert Bosch Industrietreuhand KG</p>                             |
| <p><b>Prof. Dr. François Diederich</b><br/>Professor at the Swiss Federal Institute of Technology (ETH) Zurich</p> | <p><b>Anke Schäferkordt</b><br/>Member of the Executive Board of Bertelsmann SE &amp; Co. KGaA. Co-CEO of RTL Group S.A. and Chief Executive Officer of RTL Television GmbH</p> |

| Employee representatives   |  |
|--|--|
| <p><b>Robert Oswald</b><br/>Vice Chairman of the Supervisory Board of BASF SE. Chairman of the Works Council of the Ludwigshafen site of BASF SE and Chairman of the Joint Works Council of BASF Group</p> | <p><b>Francesco Grioli</b><br/>Regional manager of the Rhineland-Palatinate/Saarland branch of Mining, Chemical and Energy Industries Union (IG BCE)</p> |
| <p><b>Ralf-Gerd Bastian</b><br/>Member of the Works Council of the Ludwigshafen site of BASF SE</p>  | <p><b>Denise Schellemans</b><br/>Full-time trade union delegate</p>  |
| <p><b>Wolfgang Daniel</b><br/>Vice Chairman of the Works Council of the Ludwigshafen site of BASF SE</p>   | <p><b>Michael Vassiliadis</b><br/>Chairman of the Mining, Chemical and Energy Industries Union (IG BCE)</p>  |

### Corporate governance

Corporate governance refers to the entire system for managing and supervising a company. This includes the organization, values, corporate principles and guidelines as well as internal and external control and monitoring mechanisms. Effective and transparent corporate governance guarantees that BASF is managed and monitored in a responsible manner focused on value creation. This fosters the confidence of our domestic and international investors, the financial markets, our customers and other business partners, employees, and the public in BASF.

The fundamental elements of BASF SE's corporate governance system are: its two-tier system, with a transparent and effective separation of company management and supervision

<sup>1</sup> Since May 2, 2014

between BASF's Board of Executive Directors and the Supervisory Board; the equal representation of shareholders and employees on the Supervisory Board; and the shareholders' rights of co-administration and supervision at the Annual Shareholders' Meeting. The Supervisory Board of BASF SE comprises twelve members. Six members are elected by the shareholders at the Annual Shareholders' Meeting. The remaining six members are elected by the BASF Europa Betriebsrat (European Works Council), the European employee representation body of the BASF Group<sup>2</sup>.

BASF SE's Supervisory Board has established a total of three Supervisory Board Committees: the Personnel Committee, the Audit Committee and the Nomination Committee.

<sup>2</sup> For further information about BASF's corporate governance, see BASF Report, pages 122-140

### Supervision of company management by the Supervisory Board

The Supervisory Board appoints the members of the Board of Executive Directors and supervises and advises the Board on management issues.

### Code of conduct and compliance

Binding standards of conduct ensure that our values are firmly established in day-to-day business activities. The framework for this is our corporate governance system, which encompasses the management and monitoring of the company. The system includes organizations, commercial principles, and guidelines, as well as internal and external control and monitoring mechanisms. The value "responsible" is the foundation of our Compliance Program.

## 1.3 Strategy – Global trends

Innovations based on chemistry will play a key role in addressing global challenges

In 2050, around 9 billion people will live on this planet. This population growth is associated with enormous global challenges, but also with many opportunities, especially for the chemical industry. We expect the chemical industry to

see particularly strong growth in the emerging economies. These markets will account for around 60% of global chemical production by 2020. Innovations based on chemistry will play a key role in three areas in particular:



### Resources, Environment & Climate

Rising energy demand is one of the world's most pressing challenges. In addition, access to clean water and efficient use of resources are becoming increasingly important.



### Food & Nutrition


A growing world population needs more food, and it will be necessary to enhance nutrition quality.




### Quality of Life

Population growth and globalization present further challenges. Aspirations differ greatly from region to region and among different social groups, but there is a common ambition: people want to improve their individual quality of life.

- Humans are already consuming more resources than our earth can regenerate
- By 2050, more than nine billion people will live on our planet. If we do not change our habits, the current over-consumption of resources will further accelerate to almost three times as much as our earth can supply
- The demand for solutions will grow significantly. BASF can help to meet this demand with its innovative chemistry

>   
2010  
Over-consumption  
of the earth's resources

>>>   
2050  
Over-consumption  
of the earth's resources

**Key trends for the chemical industry**

|  |   |   |  |
|--|---|---|--|
| <p><b>Growth will accelerate</b></p> <ul style="list-style-type: none"> <li>• Industrial production &gt; GDP</li> <li>• Chemical production &gt; GDP</li> <li>• Emerging markets will outgrow developed markets</li> </ul> | <p><b>Innovation gains in importance</b></p> <ul style="list-style-type: none"> <li>• Chemistry as enabler</li> <li>• Chemical products replace traditional materials</li> <li>• Need for innovative sustainable solutions</li> </ul> | <p><b>Sustainability as strategic driver</b></p> <ul style="list-style-type: none"> <li>• Use opportunities</li> <li>• Increase resource efficiency</li> <li>• Renewables as raw materials</li> <li>• Stakeholder dialog</li> </ul> | <p><b>Competitive landscape will change</b></p> <ul style="list-style-type: none"> <li>• Integrated chemical companies remain cornerstone</li> <li>• Emerging market players grow quickly</li> <li>• Raw material suppliers invest further downstream</li> </ul> |
|--|---|---|--|

**Chemical industry remains an attractive growth industry**

**Challenges**

Population growth to 9 billion by 2050 poses enormous global challenges:

- Rising energy demand
- Access to clean water and efficient use of resources
- Nutrition quantity and nutrition quality
- Aspiration to improve overall quality of individual life

**Opportunities**

We see many opportunities, especially for the chemical industry as an enabler to overcome those challenges:

- Chemical production growth will accelerate and exceed GDP
- Emerging markets will outgrow developed markets
- Innovative sustainable solutions will replace traditional materials
- Innovation will be the enabler for continued growth and sustainability will be a strategic driver

## Portfolio management

### BASF's successful portfolio optimization

**BASF pursues active portfolio management. In recent years, we have continuously optimized our portfolio through acquisitions, divestitures and partnerships.**

#### Active portfolio management from 2004 to 2014



#### Partnerships

Strategic partnerships with leading companies are an important pillar in BASF's active portfolio management. These partnerships improve the profitability of the overall portfolio. Among the most important partnerships are:

|          |   |                               |            |
|----------|---|-------------------------------|------------|
| Gazprom  | Long-term upstream partnership combined with natural gas trading activities                                       | Oil & Gas                     | since 1990 |
| PETRONAS | Joint venture partner in Verbund site Kuantan, Malaysia   | Chemicals                     | since 1997 |
| Total    | Partner in steam cracker in Port Arthur, Texas<br>Partner in world-scale C4 olefins complex in Port Arthur, Texas | Chemicals                     | since 1998 |
| Shell    | Joint venture for SMPO production (ELLBA) in Singapore and the Netherlands  | Chemicals                     | since 1999 |
| Sinopec  | Joint venture partner in Verbund site Nanjing, China and for isononanol plant in Maoming, China                   | Chemicals                     | since 2000 |
| Monsanto | Collaboration in plant biotechnology focusing on development of high-yielding and stress-tolerant crops           | BASF Plant Science (in Other) | since 2007 |
| Statoil  | Cooperation between Wintershall and the leading Norwegian oil and gas major Statoil                               | Oil & Gas                     | since 2013 |

<sup>1</sup> The asset swap and therefore the divestiture of the natural gas trading and storage business with Gazprom is in the closing process and has been included with its full year impact. Without Styrenics (Transfer of the Styrolution participation to INEOS planned for Q4, 2014)

#### Our goal is to acquire businesses that

1. Generate profitable growth above the industry average
2. Are innovation-driven
3. Offer a special value proposition to customers
4. Reduce cyclicity of earnings

#### Financial acquisition criteria

1. Positive contribution to EPS by year three at the latest
2. Minimum return on investment of 8% annually
3. Additional return requirements depending on country risk

**Active portfolio management pays off**

**Balanced portfolio – strength through diversification**

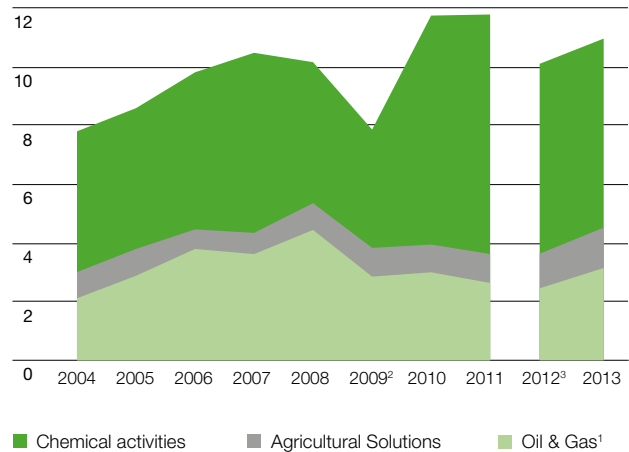
We make acquisitions to build on our strengths and make BASF even more competitive. In recent years, we acquired a number of specialized, close-to-end-user businesses (such as Cognis). In turn, we divested more commoditized and cyclical businesses (such as fertilizers). As a result of our active portfolio management, BASF has become significantly more resilient to economic downturns.

This is illustrated by the EBITDA development over the last 10-year period. Since 2004, we have increased our EBITDA (excluding ‘Other’) from €7.6 billion to almost €11.0 billion reported in 2013.

We have achieved this excellent result thanks to the continuous optimization of our portfolio as well as our efforts to increase operational excellence and reduce costs. Today, BASF is performing on a higher level with substantially reduced earnings volatility. Our well-balanced and diversified portfolio is one of our key strengths.

**EBITDA by activity<sup>1</sup>**

(Billion €, excluding Other)



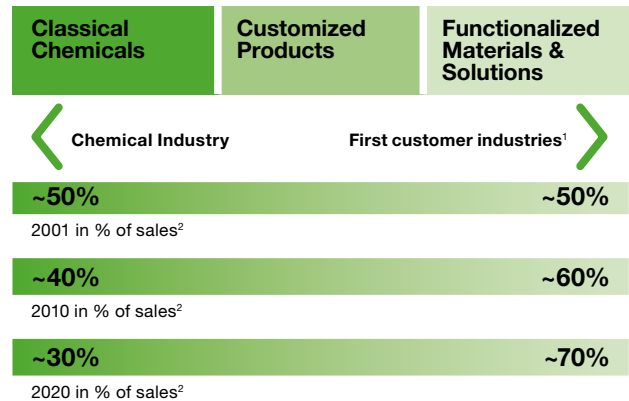
<sup>1</sup> 2004-2011 includes non-deductible oil taxes  
<sup>2</sup> Including ~€0.8 billion one-time costs for Ciba integration  
<sup>3</sup> 2012: Restated figures according to IFRS 10 and 11

**Portfolio development**

**Moving downstream towards customer industries**

Chemistry will play an increasingly important role in tackling the challenges of the future. The innovation power of a company is becoming one of the most important key success factors. Today, innovation is less about the discovery of new molecules, than the improvement of applications and the development of customer solutions.

BASF will move in this direction and will continue to develop its portfolio towards downstream industries. By 2020, we aim to generate about 70% of sales with ‘customized products’ and ‘functionalized materials & solutions’. We expect to grow in all our businesses including the ‘classical chemicals’, which will remain an important cornerstone.



<sup>1</sup> Agriculture, Construction, Consumer Goods, Health & Nutrition, Electronics, Energy & Resources, Transportation  
<sup>2</sup> Sales excluding Oil & Gas

**Active portfolio management pays off**

- BASF actively manages its portfolio: acquisitions of specialized, close-to-end-user businesses and divestiture of commoditized, cyclical businesses
- Thanks to its well balanced and diversified portfolio, BASF has become more resilient to economic downturns
- EBITDA has significantly increased over the last 10 years and reached almost €11.0 billion in 2013 (excluding ‘Other’)

**Customized products, functionalized materials & solutions**

Increase to **70%**  
(sales excluding Oil & Gas by 2020)

## Market approach

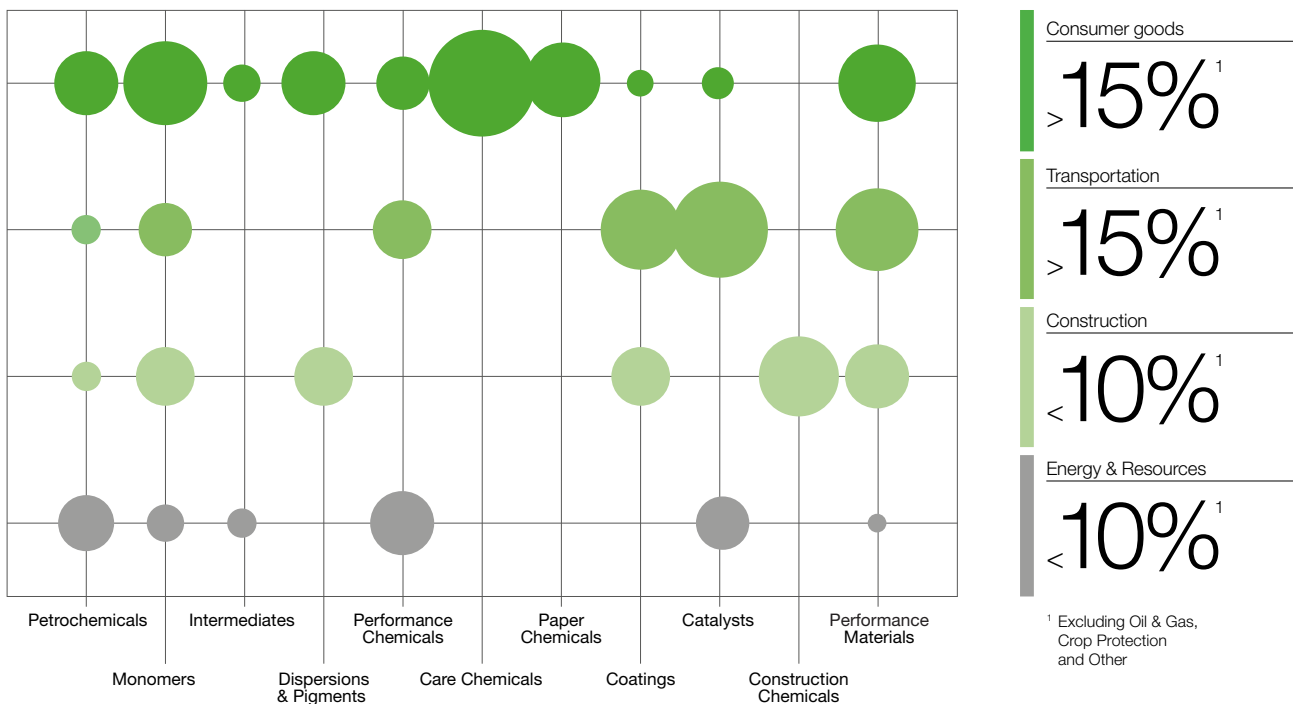
Business excellence through alignment of business models and cross-divisional customer approach based on strong industry experience

**We align our business models and sales channels to customer groups and market segments. In line with our strategic principle, ‘We add value as one company’, we aim to pool our products and services to even better meet the needs of customers from different industries.**

In our Chemicals segment, our priority is on supplying customers reliably and cost-effectively. In the Performance Products segment, we manufacture a broad range of customized products. In joint projects, we work closely together with our customers to develop new products or formulations for a specific industry. In the Functional Materials & Solutions segment we often enter into partnerships with customers to develop innovations together which help them optimize their processes and applications.

We serve customers from many different sectors with a broad portfolio of diverse competencies, processes, technologies and products. Where possible, we group activities together in business units, bundling expertise and know-how. However, not all units can be arranged purely according to an industry. To pool expertise, knowledge and contacts across different units, sharpen our understanding of the value chains and work on industry-specific solutions that could not be developed within one operating division alone, BASF created specific industry teams. Such close alignment of our business to customers’ needs is an important component of our ‘We create chemistry’ strategy.

### Building on our cross-divisional customer industry approach



Bubble size: BASF divisional sales by first customer industry (2013)<sup>2</sup>

<sup>2</sup> Excluding Oil & Gas, Crop Protection and Other  
Nutrition & Health sales predominantly into Health & Nutrition market

### Customer relations

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

### Industry orientation

- Cross-linking products and services to better address the specific needs of customer industries
- Industry teams pool skills, knowledge and customer contacts across units

### Solutions for the construction industry

As a leading provider of raw materials, systems and finished products to the construction industry, BASF supports planners and architects in realizing concepts for sustainable housing and construction. It is our goal to increase buildings' energy efficiency. In addition, we have developed solutions that reduce the amount of resources needed for construction and contribute to greater living comfort.

We understand sustainable construction as the process of developing built environments that balance economic viability with resource conservation, reducing environmental impacts and taking social aspects into account. As a result, BASF construction experts are actively engaged in green building councils.

In addition to our expertise in materials along the entire construction value chain, we are closely connected to the industry via our housing company LUWOGÉ and their energy consultancy LUWOGÉ consult.

### BASF offers one of the broadest portfolios of construction materials in the industry

Below are examples of prominent construction materials

#### Increasing Energy Efficiency

##### Latent heat storage

- 1 Micronal® PCM

##### Heat reflecting pigments

- 2 Lumogen®, PalioGen®

##### Heat reflective industrial coatings

- 2 Polyceram®

##### Thermal insulation materials

- 3 EPS – Styropor®, Neopor®
- 4 PUR/PIR – Elastopor® H
- 5 XPS – Styrodur® C



#### Improving comfort & health

##### Acoustic insulation material

- 6 Melamin resin foam – Basotect®
- Low emission dispersions

#### Increasing resource efficiency

##### Concrete Admixtures

- 7 MasterGlenium®, MasterMatrix®

#### Reducing maintenance costs

##### High Resistance Flooring

- 8 Mastertop® and Ucrete®

### Fluid management for the automotive industry

BASF's global business unit Fuel and Lubricant Solutions is a leading supplier to the global automotive and mineral oil industries. The overall offering covers fuel performance packages, refinery additives, engine coolants, brake fluids as well as lubricant additives, compounded lubricants, synthetic base stocks and components for metalworking fluids. With its comprehensive fluid management approach BASF combines innovative solutions such as transmission, axle and gear lubricants, fuel performance packages, and brake fluids for automotive manufacturers.



## Innovation – Research and development

Solutions for global challenges, developing new business fields

**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 the industry.**

As part of the ‘We create chemistry’ strategy, we have set ourselves ambitious sales and EBITDA targets as key performance indicators for our research and development activities. To achieve these, we will focus even more on market and customers’ needs to further improve time-to-market of innovations. In addition, we are broadening our long-term research activities to encompass the development of new business areas. We are currently pursuing 10 growth fields – such as E-power management, enzymes and functional crop care – that represent attractive new business opportunities in our target industries.

In addition, we are focusing on three pioneering technology areas that provide the technological basis for the development of future-oriented solutions: Materials, Systems & Nanotechnology; Raw Material Change; and White Biotechnology.

The central research platforms 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 research pipeline included approximately 3,000 projects in 2013. We increased our spending on research and development by €103 million to €1,835 million. 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. In Amagasaki, Japan, we are exploring electrolytes and electrode materials for high-performance batteries in a new laboratory for battery materials. In an affiliated center for application technology, we are developing customer-oriented solutions for battery companies.



**Research at the new global R&D center in Mumbai, India**

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.

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 industry-wide. This once again underscores BASF’s power of innovation.

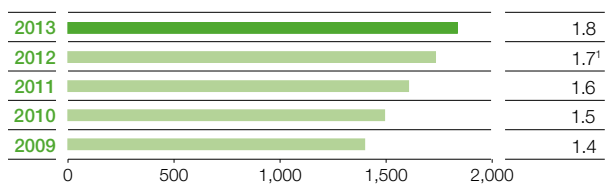
BASF had sales of around €8 billion in 2013 from new products that have been launched to the market within the last five years. We are on track to reach our sales target of €10 billion with innovations by 2015.

### Strategic focus of research and development at BASF

- Stronger focus on customer and market needs
- Future-oriented product portfolio
- Worldwide expansion of research and development centers, especially in Asia and North America
- More efficient innovation management

### Research and development expenditures

(Billion €)



### R&D expenditures as percentage of sales

(2013; excluding Oil & Gas)

3.1%

<sup>1</sup> Restated figure according to IFRS 10 and 11

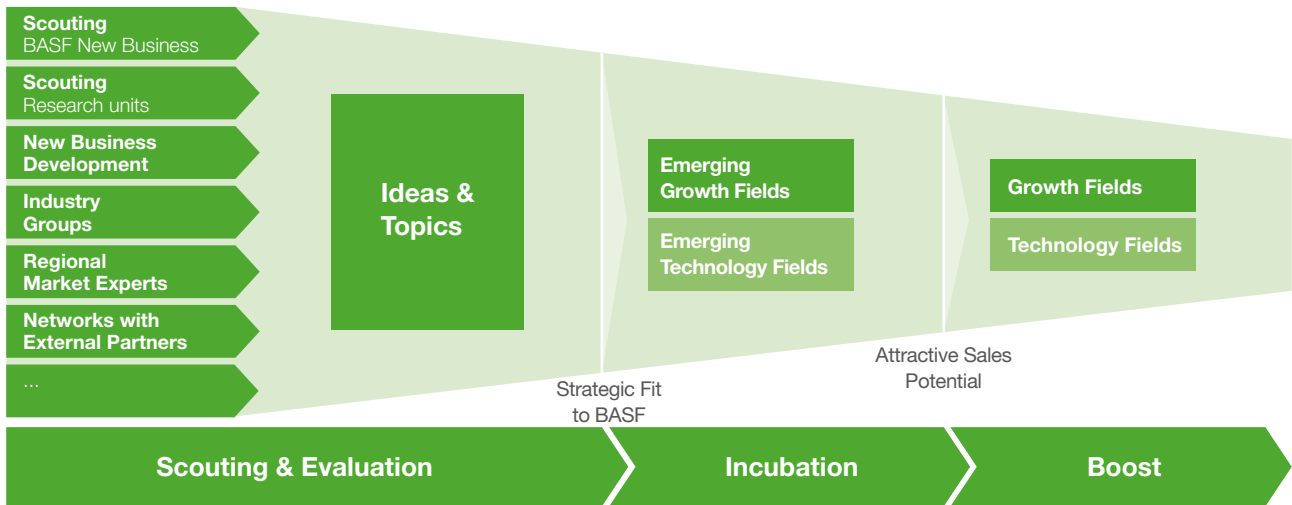


**Scouting for new ideas in 3 steps:**

Chemistry will play an even bigger role in the future. Therefore, BASF has optimized its innovation process to get new ideas and to effectively develop growth and technology fields out of them.

- **Scouting and evaluation** – To get ideas and topics beside BASF’s current portfolio an intensive scouting and evaluation process is executed by various groups.

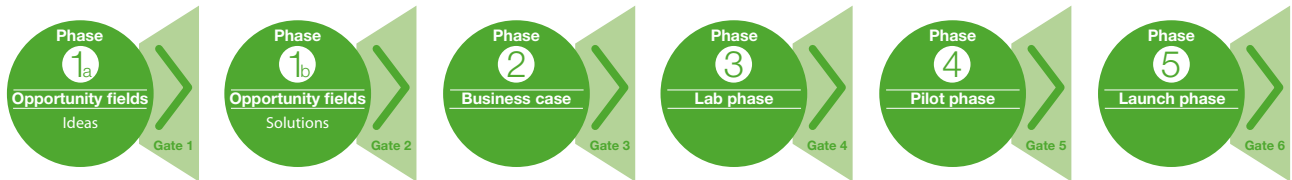
- **Incubation** – If new topics fit to BASF’s strategy, an incubation period follows to develop further market know-how, and establish R&D and technological competence.
- **Boost** – If an emerging growth field is mature enough and the sales potential is significant, a roadmap for business scale-up is developed and a dedicated growth field is established.



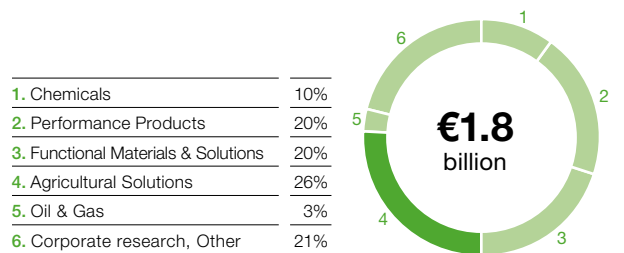
**PhaseGate process**

All innovation projects throughout BASF are managed in the PhaseGate process. This helps to guarantee high R&D output through project management and controlling. PhaseGate consists of defined phases for the entire innovation process: opportunity fields for open idea finding, business cases with consistent project assessment, and focused project work in the lab phase, pilot phase and launch.

Transparent stop/go decisions are made at each gate, based on predefined deliverables, defined success criteria and net present value calculations. This process provides numerous benefits: It reduces the time to market, increases the transparency of decision-making at the gates and makes project data instantly available.



**Total R&D expenditures 2013**



**R&D facts and figures 2013**

- Over 70 R&D centers with 10,650 employees worldwide
- Pipeline with around 3,000 projects
- Global Know-How Verbund with over 600 excellent partners
- 1,300 new patents filed
- Ranked No. 1 in Patent Asset Index™ for fifth time in succession
- €8 billion in sales with products younger than 5 years

## Innovations for a sustainable future

### Chemistry as an enabler for key customer industries






#### Key customer industries

We have analyzed growth scenarios and trends in our customer industries and focused on seven key customer industries. These industries represent around 30% of the global chemical market and they are markets of major strategic relevance for BASF. All these chemical markets have an attractive size and the majority will grow faster than the overall chemical production.

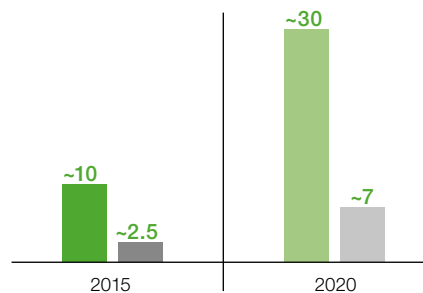
#### Growth fields

Based on future global needs, we currently pursue 'growth fields' for various customer industries. We utilize our strength as an integrated, global chemical company to enhance our growth fields and to tap into new growth markets for BASF. Our research and development competence is closely meshed with our operational excellence, our knowledge of the markets and our customer relations. Growth fields are being permanently reviewed. Fields with insufficient potential will be discarded. New fields with high potential will be added.

| Growth field examples                 | Automotive Lightweight Composites  | E-Power Management  | Functional Crop Care  |
|---------------------------------------|--|---|---|
| <p><b>Business potential 2020</b></p> |  <ul style="list-style-type: none"> <li>Market size: ~€0.5 billion (fibers and matrix)</li> <li>BASF sales potential: &gt;€100 million</li> </ul>   |  <ul style="list-style-type: none"> <li>Market size: ~€6 billion</li> <li>BASF sales potential: &gt;€300 million</li> </ul>  |  <ul style="list-style-type: none"> <li>Market size: ~€5 billion</li> <li>BASF sales potential: &gt;€500 million</li> </ul>  |
| <p><b>Existing activities</b></p>     | <ul style="list-style-type: none"> <li>Preparing the next major advancement in lightweight vehicle construction using fiber reinforced plastics</li> <li>Development of holistic material, simulation and production concepts for structural vehicle parts made from innovative composite materials</li> <li>Cooperations with customers, research institutes and industry partners</li> </ul> | <ul style="list-style-type: none"> <li>Materials for efficient cooling</li> <li>High temperature superconductor wires for efficient current power generation and transmission</li> <li>Stationary power storage</li> </ul>  | <ul style="list-style-type: none"> <li>Leveraging the best of chemistry and biology, helping our customers to unlock agricultural potential</li> <li><i>Soil management</i> – enhance water and nutrient management in the soil</li> <li><i>Seed solutions</i> – seed treatment to enhance seed performance</li> <li><i>Crop care</i> – manage abiotic stress factors like heat or cold, and thus enhance plant health</li> </ul> |
| <p><b>Goals</b></p>                   | <ul style="list-style-type: none"> <li>Position BASF as one of the leading suppliers of composite material systems for the automotive industry</li> <li>Extend existing business and access new markets by utilizing synergies between different material systems</li> </ul>   | <ul style="list-style-type: none"> <li>Development for new market in power generation, power transmission, stationary storage and power usage (heating and cooling, electrical motors)</li> <li>Development of material-based breakthrough technologies for use in the power value chain</li> </ul> | <ul style="list-style-type: none"> <li>Leverage BASF Know-How Verbund to offer innovative solutions beyond conventional crop protection</li> <li>Continue to enhance our partnerships with seed companies</li> </ul>  |

**Goals for sales and EBITDA with innovations**  
(Billion €)

- Sales from innovations then on the market for less than five years
- EBITDA from innovations then on the market for less than five years
- Sales from innovations then on the market for less than ten years
- EBITDA from innovations then on the market for less than ten years



## Growth field example: Enzymes

### Innovation-driven specialties for various markets

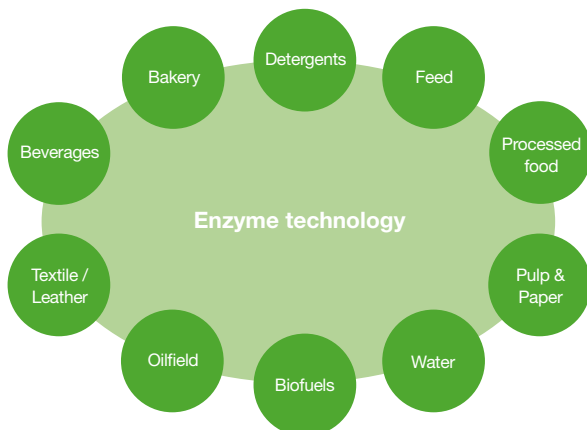
Enzymes are performance and innovation-driven specialties with growth perspectives above chemical market growth, high profitability and low cyclicality. They are contributing greatly to more sustainable processing and resource efficiency. While detergent enzymes are mainly geared towards special cleaning effects, performance enhancement and environmental benefits, food and feed enzymes are, besides their positive environmental impact, focused on productivity and health improvements in both human and animal nutrition.

#### Enzymes are a growth field supporting sustainable solutions

Enzymes are biobased and biodegradable products that contribute actively to improve sustainability in their field of application:

- Feed enzymes lead to better feed conversion by the animal, improved feed quality and represent an active contribution to animal welfare
- Food enzymes, e.g. enzymes for bakery, have a beneficial effect on shelf-life of bread, enabling less frequent transport to retailers and less disposal of staled bread
- Detergent enzymes enable higher concentrated and better performing laundry detergents that also perform at lower temperatures

#### Enzymes are used across several industries



#### BASF's global activities in enzymes



#### BASF has long-standing experience in enzymes used for feed applications

##### Natuphos®

Phytase, or Natuphos®, is a feed enzyme that improves the utilization of phosphate in pigs and poultry. Its benefits are both environmental and economic: Less phosphate is deposited into soil and water, and feed is used more efficiently. Phytase is produced by fermentation by the fungus *Aspergillus niger*.

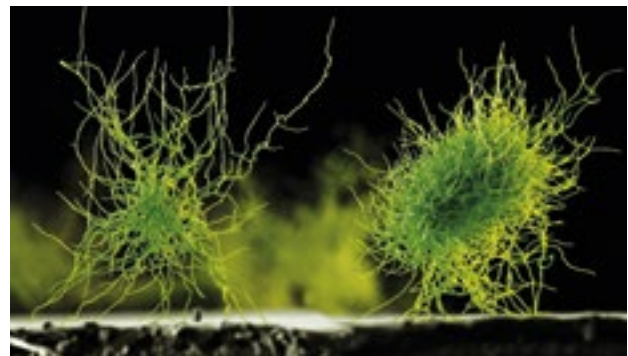
##### Natugrain® TS

The animal feed additive Natugrain® TS contains enzymes that promote efficient digestion, improving the availability of nutrients. The enzymes glucanase and xylanase are usually heat sensitive and are destroyed by the high temperatures used to produce animal feed. BASF has succeeded in producing thermostable xylanase and glucanase by fermentation with the mold fungus *Aspergillus niger*.

#### BASF wants to become a major player in enzyme technology by 2020

- Goal: Become a leading player in industrial enzymes
- Sales target 2020: >€400 million
- Leverage market access via chemical portfolio
- Mainly sales to merchant market planned

To achieve these targets BASF had to close strategic technology gaps.



The fungus *Aspergillus niger* has the natural capacity to produce various technically useful enzymes.

#### Key facts for the growth field enzymes:

- Goal is to become a leading player in industrial enzymes
- Existing business mainly with enzymes for animal nutrition (Natuphos®, Natugrain®)
- Excellent technology platform established
- Focus on enzymes for human and animal nutrition as well as for home care

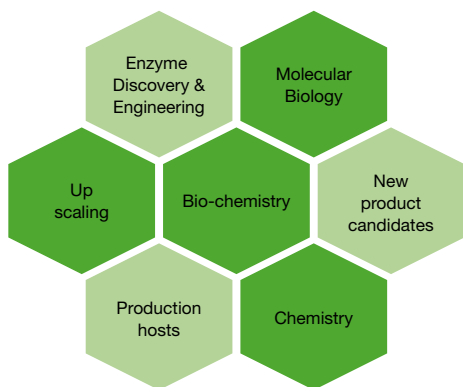
**BASF's enzyme roadmap has closed major technology gaps in 2013**

The recent capability-driven acquisitions have significantly strengthened our enzyme technology platform, thus forming an 'Enzyme Verbund' within BASF. BASF's unique market access via its existing chemical portfolio as well as our strong know-how in biochemistry, molecular biology and upscaling of biotechnological processes have been complemented by:

- The acquisition of Henkel's enzyme know-how including production hosts and product candidates
- The license for one of Dyadic's production hosts
- The acquisition of Verenum which contributed a team of researchers highly experienced in frontier science and product development, a broad library of new enzymes as well as enzyme engineering capabilities

In addition, we gained further access to new enzyme candidates through the collaboration with the German firm Direvo Biotechnology GmbH.

**Expanding the technology platform through acquisitions and licensing**



■ Legacy BASF    ■ Technology gaps closed through acquisition

**Deep Dive Verenum acquisition**

In 2013 BASF acquired Verenum Corporation, a leading industrial biotechnology company specialized in high-performance enzymes, for USD 62 million. This acquisition further strengthened BASF's footprint in the enzyme market as we integrated Verenum's scientific and technological excellence into our own global enzyme activities. Verenum's R&D set-up, which is located in San Diego, California, became part of BASF's central technology platform for biological research. Verenum offered nine commercial products (trademarks), including the toll manufacturing of enzymes for animal nutrition, grain processing, hydraulic fracturing, mud cake removal, pulp & paper, as well as textile processing.

Verenum was well known for its track record of innovation and had innovative technologies which complemented BASF's portfolio very well. Particular highlights were Verenum's enzyme collection, with 4,000 classified and pre-screened enzymes ready for immediate enzyme engineering, their powerful enzyme discovery and enzyme engineering technology platform, which is highly advanced and fully automated as well as an experienced R&D team of scientists with a proven track record including experts with 10 or more years of enzyme research experience and international recognition. Last but not least special emphasis was placed upon Verenum's modern research facility including laboratories, high-throughput robotics, and a bio-pilot plant in a highly attractive biotechnology cluster.

**Further advancement of enzyme technology through global research network**

- Expanding White Biotechnology activities in San Diego, California – one of the most entrepreneurial biotech hotspots
- Developing innovative customer solutions with enzymes through own research and development, partnering and acquisitions
- Leveraging innovative technologies through a network with leading universities and institutes

**Major steps to establish an enzyme technology platform**

- Acquisition of Henkel's enzyme technology
- R&D and license agreement with Dyadic International Inc.
- Agreement with Direvo Biotechnology GmbH
- Acquisition of Verenum Corporation

**Expected BASF sales of industrial enzymes in 2020**

>€400 million

## Investments

Capital expenditure will boost future organic growth

**Along with innovations and acquisitions, investments will make a decisive contribution toward achieving our ambitious growth targets. We are intensifying our capital expenditures in emerging markets and are strengthening our activities in developed markets.**

Over the next 10 years more than half of the chemical demand growth is expected to stem from emerging markets. We believe BASF is well positioned to participate from these tremendous opportunities. BASF's sales in the emerging markets almost tripled in absolute terms during the last 12 years to more than €18 billion and accounted for more than 30% of total sales in 2013, excluding Oil & Gas. EBITDA grew in this time period even faster than sales and represented in 2013 more than one third of the total EBITDA excluding Oil & Gas.

We will further spur organic growth in these countries by increasing our sales forces, strengthening regional R&D, and investing in new production capacities. By 2020, we aim to significantly increase sales to customers in emerging markets to around 45% of total sales (excluding Oil & Gas).

Investments into developed markets, however, also represent huge chances. As the second largest chemical producer in North America, BASF is already benefiting from the low energy costs coming from U.S. shale gas. BASF adjusted its Port Arthur cracker in order to be more flexible and to benefit from use of lighter feed. We are investing into a formic acid plant in Geismar are planning to build together with Yara a world-scale ammonia plant in Freeport and are evaluating an investment into a world-scale methane-to-propylene complex on the U.S. Gulf Coast.

From 2014 to 2018, we plan to invest €20.2 billion. For the first time more than 50% of our plant capital expenditure outside of Europe. In 2014, we plan to maintain our investment on the prior year level at around €4.4 billion.

### Increase sales share of emerging markets

| Developed markets <sup>1</sup>           | Emerging markets |
|--|------------------|
| ~78%                                     | ~22%             |
| 2001 in % of sales (€28bn <sup>2</sup> ) |                  |
| ~67%                                     | ~33%             |
| 2013 in % of sales (€59bn <sup>2</sup> ) |                  |
| ~55%                                     | ~45%             |
| 2020 in % of sales <sup>2</sup>          |                  |

<sup>1</sup> BASF definition: Developed markets include EU15, Norway, Switzerland, North America, Japan, Australia and New Zealand

<sup>2</sup> Sales excluding Oil & Gas



BASF is evaluating an investment in a world-scale methane-to-propylene complex on the U.S. Gulf Coast to cover its captive supply of propylene and to take advantage of low gas prices in the USA. The investment would be BASF's largest single-plant investment to date.

### Investments

- Investments will make an important contribution to our growth
- In 2014, we plan to maintain our investments on the prior year level
- Share of sales in emerging markets will increase significantly
- From 2014 to 2018, we plan to invest €20.2 billion

### Planned capital expenditures 2011-2020

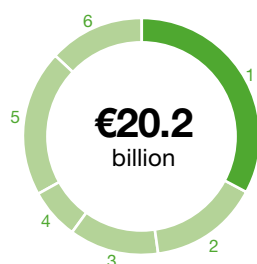
€30-35 billion

Major investment projects

|  |  |  |
|--|--|--|
| <p><b>Integrated MDI complex<br/>Chongqing, China</b></p>  <ul style="list-style-type: none"> <li>• World-scale MDI plant (400,000 t/a)</li> <li>• One of the main anchor activities in growth region Western China</li> <li>• Start-up planned for 2015</li> </ul>                             | <p><b>Ammonia plant in planning<br/>Freeport, Texas</b></p>  <ul style="list-style-type: none"> <li>• BASF and Yara plan to build world-scale ammonia plant in the USA</li> <li>• 750,000 t/a; hydrogen-based process</li> </ul>   | <p><b>Acrylic acid complex<br/>Camaçari, Brazil</b></p>  <ul style="list-style-type: none"> <li>• World-scale production site for acrylic acid, butyl acrylate and superabsorbent polymers</li> <li>• Investment: &gt;€500 million</li> <li>• Start-up planned for end of 2014</li> </ul>                           |
| <p><b>Integrated TDI plant<br/>Ludwigshafen, Germany</b></p>  <ul style="list-style-type: none"> <li>• World-scale TDI plant (300,000 t/a)</li> <li>• Investment: ~€1 billion including the expansion of precursor plants and infrastructure</li> <li>• Start-up beginning of 2015</li> </ul> | <p><b>Aroma ingredients<br/>Kuantan, Malaysia</b></p>  <ul style="list-style-type: none"> <li>• BASF and PETRONAS started to further expand its activities in Malaysia</li> <li>• Aroma ingredients</li> <li>• Investment: ~\$500 million</li> <li>• Start-up of first plants in 2016</li> </ul> | <p><b>Oil &amp; Gas<br/>Activities in Russia</b></p>  <ul style="list-style-type: none"> <li>• Wintershall and Gazprom expand gas production of Achimov deposits of the Urengoy field to blocks IV and V</li> <li>• Wintershall to hold 25% plus one share</li> <li>• First volumes earliest from 2016</li> </ul> |

Planned capital expenditures by segment 2014-2018

|                                     |     |
|-------------------------------------|-----|
| 1. Chemicals                        | 33% |
| 2. Performance Products             | 15% |
| 3. Functional Materials & Solutions | 12% |
| 4. Agricultural Solutions           | 7%  |
| 5. Oil & Gas                        | 20% |
| 6. Other                            | 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. Alternative sites under review     | 4%  |



## Operational excellence

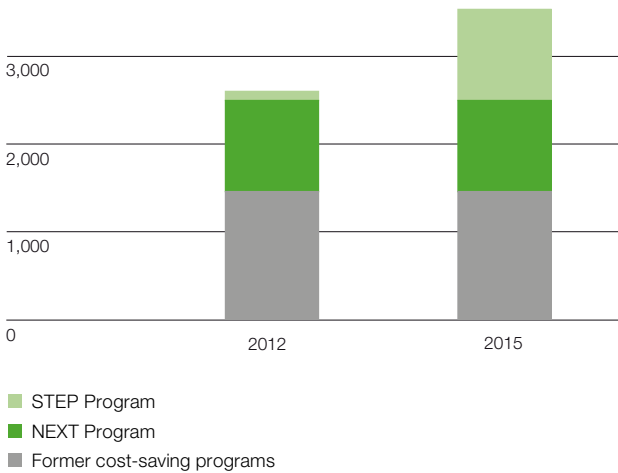
We continuously improve our productivity and efficiency

In order to remain competitive, we continuously improve our operational excellence. We constantly work on improving our sites, plants and production processes and are continuing with our restructuring and cost-cutting measures. At the same time, we are increasing our operational excellence through ongoing improvements by harmonizing our business processes worldwide and improving their efficiency. Our successfully concluded excellence program NEXT reduced costs by more than €1 billion from 2012 onwards.

Our current strategic excellence program STEP will further strengthen our competitiveness and profitability. By the end of 2015, STEP is expected to contribute around €1 billion in savings each year. This program includes measures in the areas of production, engineering, maintenance, logistics, procurement and administration. STEP comprises more than 100 projects that are expected to lower fixed costs and raise profit margins. In 2013 we already recorded savings of more than €600 million annually compared to the base year 2011.

### Annual savings contribution

(Million €)



### Operational excellence

- The excellence program STEP is expected to contribute around €1 billion each year by the end of 2015
- In 2013 we recorded savings of €600 million annually compared to the base year 2011
- Our programs will continue to contribute to cost reduction and greater efficiency

### Case study: Performance Chemicals



In 2010, following the acquisitions of Ciba and Cognis, the division Performance Chemicals started an initiative to holistically address strategic and operational measures. We transformed our businesses by adapting to new market realities and creating leading industry platforms to become best-in-class and grow profitably.

An important part of the initiative was Operational Excellence – focusing on the footprints of production sites, site optimization, technical process optimization, raw materials and supply chain management.

The results of the program are exemplified at BASF's site in McIntosh, Alabama, USA: At the legacy Ciba site, we produce antioxidants and light stabilizers for the use in plastics. The 500 employees and contractors applied a holistic approach to identify value opportunities, optimize technical and management systems, and implement a culture where change and continuous improvement is encouraged.

Since 2010 over €70 million in value creation as part of STEP and NEXT were achieved with the described measures.

### STEP – Targeted annual earnings contribution (by the end of 2015)

~€1 billion  
(per year)

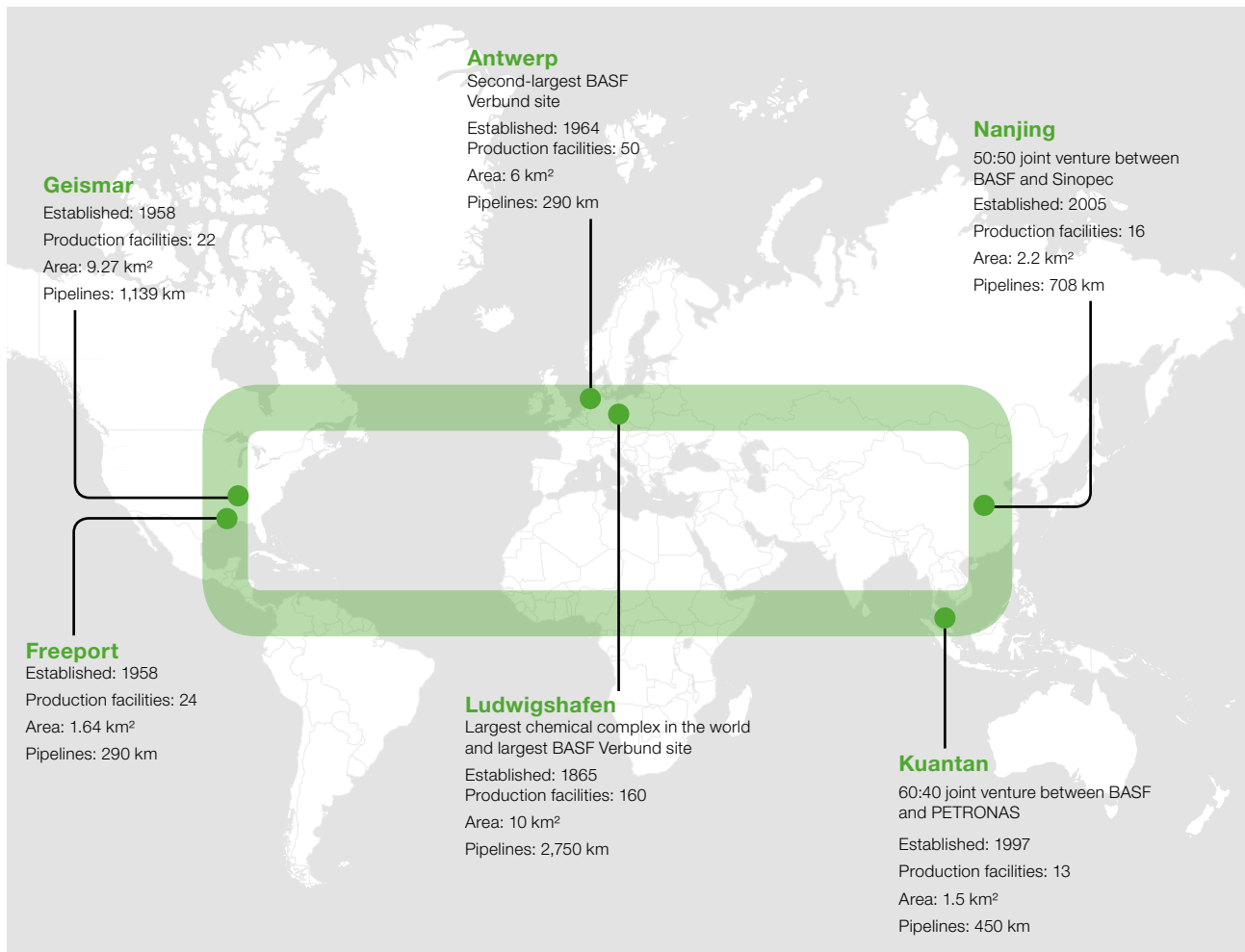


## 1.4 Verbund

Unique Verbund concept – a competitive advantage for BASF

Our unique Verbund concept is one of BASF's greatest assets. The Verbund principle enables us to add value as one company through the efficient use of resources. At our Verbund sites, production plants, energy and

waste flows, logistics, and site infrastructure are all integrated. BASF operates six Verbund sites worldwide: two in Europe, two in North America and two in Asia.



### Verbund cost advantages worldwide

>€1 billion  
(per year)

### Verbund cost advantages – breakdown

|                           |     |
|---------------------------|-----|
| 1. Logistics Verbund      | 60% |
| 2. Energy Verbund         | 30% |
| 3. Infrastructure Verbund | 10% |



## 1.4 Verbund

### Unique Verbund concept – a competitive advantage for BASF

The Verbund system creates efficient value chains that extend from basic chemicals right through to consumer products and system solutions. In this system, chemical processes consume less energy, achieve higher product yields and conserve resources. Thus, we save on raw materials and energy, minimize emissions, cut logistic costs and exploit synergies.

On a global scale, BASF realizes annual savings of more than €1 billion through its Verbund concept.

#### Production Verbund

The Production Verbund is BASF's traditional core competency and starting point for multiple value chains. By linking plants, we can create efficient value chains from basic chemicals right through to high value-added products such as aroma chemicals or crop protection products. In addition, by-products from one plant can be used as raw materials elsewhere. With our closely interlinked production system, we reduce our raw material and energy use and cut costs.

#### Logistics Verbund

The Verbund principle also applies to logistics. Production plants are connected by an extensive network of pipes, which provides an environmentally friendly method of transporting raw materials and energy quickly and safely. As a result, BASF significantly reduces its need to use transport on road, rail, river and sea. This provides not only a significant cost saving for BASF, but also reduces our fuel consumption and carbon emissions. In addition, the associated costs of handling and storage are eliminated.

#### Energy Verbund

The Verbund principle also applies to energy. Our Verbund system links our production and energy demands, thus making a major contribution to energy efficiency. Steam from production processes is not discharged into the environment, but is captured to be used as an energy source at other production plants. Thanks to the Verbund system, an annual reduction in carbon emissions of 3.5 million metric tons is realized.

#### Infrastructure Verbund

At our Verbund sites, we also benefit from shared use of on-site facilities such as fire department, security, waste water treatment and analytics.

#### Logistics Verbund



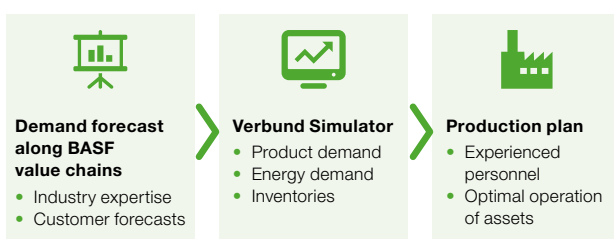
#### >€600 million cost savings per year

At our Verbund sites, the production plants are connected by an extensive network of pipelines. This provides us with an environmentally friendly method of transporting raw materials and intermediates quickly and safely.

At our Verbund site in Ludwigshafen we are able to avoid the transportation of seven million metric tons of freight every year. This corresponds to roughly 280,000 fewer truckloads or more than 3,000 fewer cargo shipments. This not only provides a significant cost saving for BASF but also significantly reduces our fuel consumption and carbon dioxide emissions.

In addition, the Logistics Verbund leads to reduced storage requirements (for example, less required storage capacity, lower working capital) as well as the elimination of associated handling.

#### Coordination Circle Verbund



#### Logistics Verbund

- Production plants are connected by extensive network of pipes for transport of raw material and intermediates
- Significant reduction in transport, storage and handling requirements
- More than €600 million annual cost savings due to Logistics Verbund

## Energy Verbund



### >€300 million cost savings per year

Our Verbund system links our production and energy demands, thus making a major contribution to energy efficiency. Heat from production processes is not discharged into the environment, but is captured to be used as an energy source at other production plants.

A perfect example to illustrate this is acrylic acid production at our Ludwigshafen Verbund site. The main raw material for acrylic acid is propylene, which is supplied via pipeline from the steam cracker. The reaction of propylene to acrylic acid generates heat. In order to capture this energy, the heat is converted into steam. The majority of the steam is fed into the pipeline network of the Verbund site, where it serves as an important energy source for other production plants.

At our Ludwigshafen site, we operate two acrylic acid plants, which cover around 10% of the steam requirements of the entire Ludwigshafen Verbund site. Thus, acrylic acid production is not only an important supplier to various downstream facilities (such as superabsorbents) but also contributes significantly to the savings of the Energy Verbund.

### Verbund flexibility

- Despite of its complexity, the Production Verbund allows for a high degree of flexibility, for example, in times of fluctuating demand
- The Verbund Simulator is a proprietary IT tool that helps us to steer the Verbund through different scenarios
- The economic crisis in 2008/2009 was an outstanding example. We were able to reduce utilization of our crackers to a minimum and were still able to remain profitable

## Infrastructure Verbund



### >€100 million cost savings per year

At our Verbund sites, we also benefit from shared use of on-site facilities such as the fire department, security, waste water treatment and analytics.

For example, BASF achieves economies of scale with its central waste water treatment plant at the Ludwigshafen site which cleans the wastewater from our 230 production plants, as well as the waste water from the city of Ludwigshafen and other external customers.

The global Analytics Verbund connects all laboratories in the analytics departments. It fosters an easy exchange of information and quick communication concerning all topics related to analytics. This guarantees an effective and efficient use of all analytics resources to strengthen our customer focus and to ensure a process of continuous improvement.

Furthermore, by regionally organizing the fire brigade control centers into a spider network the BASF fire department could increase the efficiency of its services. In addition, the vehicle pool is standardized resulting in lower investment and maintenance costs.

### Sustainability through the Verbund

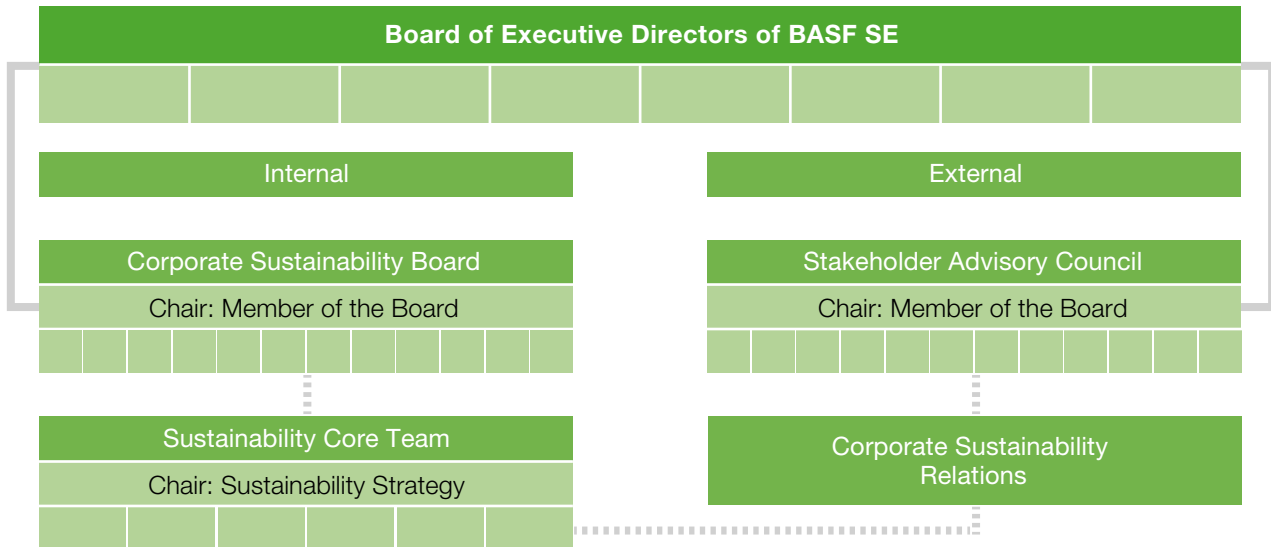
The Verbund opens up ways of reducing emissions and waste and lowering resource consumption. It also minimizes transport distances. The Verbund is therefore not just an important economic asset but also generates environmental benefits. For example, we avoid 3.5 million metric tons of greenhouse gas emissions per year in the Energy Verbund and have an equivalent of 280,000 fewer truck loads through the Logistics Verbund.

## 1.5 Sustainability

Taking advantage of business opportunities while minimizing risks, and strengthening relationships with our stakeholders

**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.” BASF defines sustainability as balancing economic success with social and environmental responsibility.**



### Corporate Sustainability Board (CSB)

At BASF sustainability has been a board-level responsibility since 2002. Our globally responsible CSB is the central steering and decision body for sustainable development within BASF. The Chairwoman of the CSB is Margret Suckale, Member of the Board of Executive Directors.

The CSB comprises 12 heads of functional, operating and regional divisions, including the Climate Protection Officer. The Sustainability Core Team supports the CSB by driving the implementation of the CSB decisions and connecting with the sustainability communities for example in supervising the approved sustainability initiatives and performance measures.

### Stakeholder Engagement

An inherent part 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. Furthermore, we believe in transparent communication about our activities. We have a particular responsibility toward our production sites’ neighbors, and discuss current issues with them in 84 community advisory panels specially designed for this purpose.

### Stakeholder Advisory Council

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.

### Innovation for climate protection

~€6.7 billion

in sales from climate protection products in 2013

~1/3

of our research and development expenditure is principally invested in projects for increased energy efficiency and climate protection

### Sustainability strategy

Our sustainability management has three responsibilities:

- Taking advantage of business opportunities by offering our customers innovative products and solutions that contribute to sustainable development
- Minimizing risks by identifying relevant issues early on with the help of our materiality analysis
- Establishing strong and open relationships with our stakeholders and engaging our employees actively in sustainability in their day-to-day activities

**Identification of material aspects**

The materiality analysis helps us to 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 employees 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. All topics in this assessment are relevant both for our stakeholders and for BASF. Part of the implementation of the materiality

analysis was the discussion with BASF's sustainability experts to identify overarching material aspects.

The evaluation focused primarily on how BASF's business is impacted by these topics. The following material aspects were identified: employment and employability, energy and climate, food, operational excellence, responsible partnering, products and solutions, resources and ecosystems, and water. We use the materiality analysis to constantly enhance our sustainability management.

**Material aspects**



**Materiality assessment**

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

**Business opportunities with sustainability**

With our Eco-Efficiency Analysis, we have been identifying critical parameters for improving the ecological and economical balance of our products and processes within the value chain. In addition, we use our Socio-Eco-Efficiency Analysis SEEBALANCE®, to consider social aspects. The AgBalance® method, developed by BASF in 2011, analyzes and evaluates sustainability specifically in agricultural production.

## 1.5 Sustainability

### Our goals

#### Environment and product stewardship

|  | 2020 goals | Status at year-end 2013 |
|--|------------|-------------------------|
| <b>Energy and climate protection</b>   |            |                         |
| Improvement of energy efficiency in production processes <sup>1</sup> (baseline 2002)                      | +35%       | +19.8%                  |
| Greenhouse gas emissions per metric ton of sales product <sup>1</sup> (baseline 2002)                      | -40%       | -34%                    |
| Stop flaring of associated gas released during Wintershall's production of crude oil (2012 goal)           | 100%       | 100%                    |
| Greenhouse gas emissions per amount and distance of transported gas (baseline 2010)                        | -10%       | -9%                     |
| <b>Water</b>   |            |                         |
| Emissions of organic substances to water <sup>1</sup> (baseline 2002)                                      | -80%       | -78.5%                  |
| Emissions of nitrogen to water <sup>1</sup> (baseline 2002)  | -80%       | -86.8%                  |
| Emissions of heavy metals to water <sup>1</sup> (baseline 2002)  | -60%       | -64.2%                  |
| Withdrawal of drinking water for production (baseline 2010)  | -50%       | -25.3%                  |
| Introduction of sustainable water management at production sites in water stress areas                     | 100%       | 11.1%                   |
| <b>Air</b>   |            |                         |
| Emissions of air pollutants <sup>1</sup> (baseline 2002)   | -70%       | -62.2%                  |
| <b>Products</b>  |            |                         |
| Risk assessment for all products sold worldwide by BASF in quantities of more than one metric ton per year | >99%       | 56%                     |

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

#### Climate protection

Our climate protection activities are based on comprehensive emissions controlling. By 2020, we aim to reduce our greenhouse gas emissions per metric ton of sales product by 40% compared with the 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.

#### 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 BASF Group. Compared with other methods of separately 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.

#### Sustainable Water Management

BASF uses water as a coolant, solvent and cleaning agent, as well as to produce our products. We aim to use water as sparingly as possible and further reduce emissions to water. 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 applying the European Water Stewardship (EWS) standard set down by the European Water Partnership by 2020.

#### Product stewardship

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. 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.

#### BASF receives European Water Stewardship certificate

BASF achieved gold-level certification according to the European Water Stewardship (EWS) standard for its production site in Tarragona, Spain and Ludwigshafen, Germany. In order to attain this certificate, auditors of third-party certification body TÜV Nord Integra assessed the entire water management performance of BASF's production site, from extraction of water at its source to its reintroduction in downstream water bodies.

#### Dow Jones Sustainability Index

BASF was included for the thirteenth year in a row in the global Dow Jones Sustainability Index. We have been recognized for our sustainability engagement in areas such as climate strategy, risk and crisis management, as well as human capital development, and plant biotechnology.

## Employees

|   | Long-term goals   | Status at year-end 2013  |
|---|---|--|
| International proportion of senior executives   | Increase in the proportion of non-German senior executives (baseline 2003: 30%)   | 35%  |
| Senior executives with international experience | Proportion of senior executives with international experience over 80%  | 81.6%  |
| Women in executive positions                    | Increase in the proportion of female executives worldwide   | 18.5%  |
| 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 worldwide |

## Health and Safety

|   | 2020 goals | Status at year-end 2013 |
|---|------------|-------------------------|
| <b>Transportation</b>   |            |                         |
| Transportation accidents per 10,000 shipments (baseline 2003) | -70%       | -61%                    |
| <b>Occupational Safety</b>                                    |            |                         |
| Lost time injuries per million working hours (baseline 2002)  | -80%       | -58%                    |
| <b>Health Protection</b>                                      |            |                         |
| Health Performance Index (annual goal)                        | >0.9       | 0.89                    |

### Occupational safety and health protection

BASF never compromises on safety. We promote and monitor safety at work through risk assessments, safety rules, seminars and audits.

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.

### Transportation safety

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.

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).

### Employee and manager diversity

Diversity offers competitive advantage for the power of innovation, for a better understanding of different markets and for team performance. At the end of 2013, the percentage of executive positions in the BASF Group held by women was 18.5% (2012 17.2%). In 2013, 35% of our senior executives were non-German and 81.6% of our senior executives had international experience.

### Employee development

The goal of our global Employee Development project is to establish employee development as a top priority within the company. Each employee spent an average of three days on further training in 2013. A total of more than 107,000 seminar days took place at BASF SE in 2013.

### Carbon Disclosure Project (CDP)

BASF is among the 10 leading companies in the world in reporting of climate protection. The CDP represents 722 institutional investors, with around 87 trillion USD in assets. We were once again listed in the CDP Global 500 Climate Disclosure Leadership Index in 2013, for the ninth time in succession.

### China Green Companies Top 100

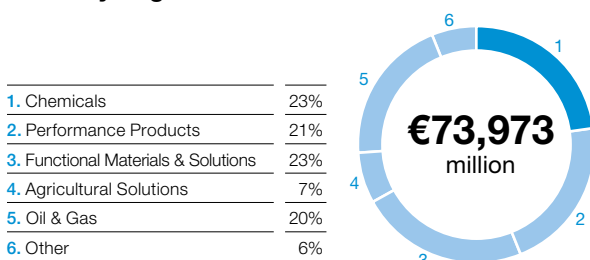
For the sixth time in succession, BASF was listed among the China Green Companies Top 100. BASF was recognized for its contribution to society, especially for its unique "1+3" Corporate Social Responsibility project where it successfully brings together partners along the supply chain, including customers, suppliers, and logistics service providers, to implement sustainability measures.

# Business Segments

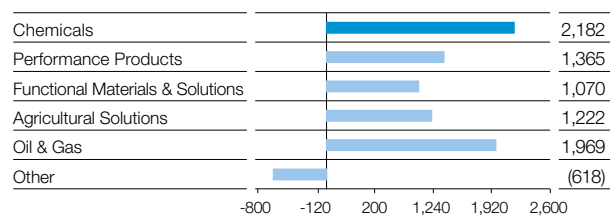
Our business portfolio is well balanced and offers strong growth opportunities. It consists of five segments with 14 operating divisions. We focus our business on the needs of our customers. Our segments are based on related products, customer industries and production processes. This enables us to more effectively combine our competencies and knowledge and bring our products and system solutions to the market faster.



Sales by segment 2013



EBIT before special items 2013  
(Million €)





## Business Segments

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# 2

## 2.1 Chemicals



Steamcracker complex in Port Arthur, Texas. BASF and Total converted the steamcracker to take up to 90% of light feed to participate in opportunities from very competitive feedstock prices. The mix of the feed can be adjusted on a daily basis.

### page 38

The **Petrochemicals** division, with its broad range of basic chemicals, such as ethylene, propylene, oxo alcohols and acrylic monomers, is the foundation of BASF's value chains.

### page 40

The **Monomers** division bundles large-volume monomers and basic polymers such as MDI, TDI, caprolactam and polyamides with the majority of inorganic products.

### page 42

With more than 700 products, our **Intermediates** division develops, produces and markets the world's most comprehensive range of chemical intermediates and building blocks.

The Chemicals segment will continue to focus on maintaining and developing BASF's Production Verbund. BASF's unique Verbund system of highly integrated production sites offers substantial competitive advantages. The main success factors for this segment are operational and technological excellence, scale effects, integration and raw material availability, reliable and low cost logistics, as well as the reduction of complexity. The three divisions, Petrochemicals, Monomers and Intermediates, are aligned with chemical value chains to minimize internal interfaces and to enhance scale effects.

### Segment data Chemicals

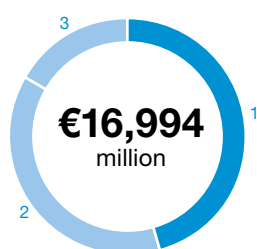
| (Million €)  | 2009  | 2010   | 2011   | 2012 <sup>1</sup> | 2013   |
|--|-------|--------|--------|-------------------|--------|
| Sales to third parties   | 7,515 | 11,377 | 12,958 | 17,887            | 16,994 |
| Share of total BASF sales (%)  | 14.8  | 17.8   | 17.6   | 24.8              | 23.0   |
| Thereof Petrochemicals   | 4,664 | 7,593  | 8,839  | 8,260             | 7,785  |
| Monomers (until 2012 Inorganics)                                     | 983   | 1,255  | 1,415  | 6,772             | 6,385  |
| Intermediates  | 1,868 | 2,529  | 2,704  | 2,855             | 2,824  |
| Income from operations before depreciation and amortization (EBITDA) | 1,571 | 3,000  | 3,188  | 3,021             | 2,956  |
| EBITDA margin (%)  | 20.9  | 26.4   | 24.6   | 16.9              | 17.4   |
| Income from operations (EBIT) before special items                   | 1,021 | 2,302  | 2,441  | 2,171             | 2,182  |
| EBIT before special items margin (%)                                 | 13.6  | 20.2   | 18.8   | 12.1              | 12.8   |
| Income from operations (EBIT)  | 735   | 2,310  | 2,442  | 2,173             | 2,086  |
| EBIT margin (%)  | 9.8   | 20.3   | 18.8   | 12.1              | 12.3   |

<sup>1</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly. These restated prior year figures also take into account the new segment structure as of January 1, 2013

### Segment sales 2013

(Million €)

|                   |       |
|-------------------|-------|
| 1. Petrochemicals | 7,785 |
| 2. Monomers       | 6,385 |
| 3. Intermediates  | 2,824 |



### Chemicals 2013

(Million €)

EBITDA

2,956

EBIT before special items

2,182

## Summary of the Investor Day Chemicals segment

Reliable supply of upstream chemicals enables growth of BASF in downstream businesses and in emerging markets

**The Chemicals segment focuses on cost effective and reliable supply of key raw materials. It strengthens the Verbund by enabling growth of BASF's downstream businesses. Further growth opportunities are captured in emerging economies.**

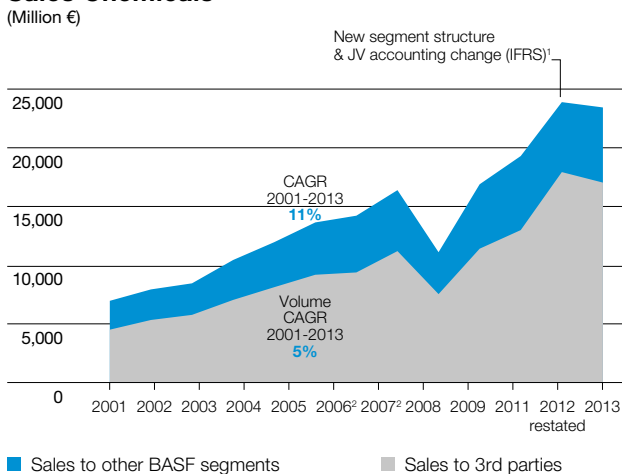
### Growing market, diversifying raw material base

Chemistry is an enabler. Therefore, until 2020 global chemicals production without pharma is expected to grow above global GDP at 4.3% p.a.. Market growth will be accompanied by an increasing focus on sustainable development, changes in the raw materials landscape and an ongoing dynamic competitive environment. Raw material change will be especially driven by the shale gas development in North America and by a stronger focus on coal-based chemistry in China. In addition, renewable raw materials provide growth opportunities in certain niches.

### Strong cash and earnings contribution

Since 2001, the Chemicals segment grew in line with global chemical production, while at the same time contributing strongly to BASF's free cash flow. Over the last decade it earned a premium on cost of capital every year, even in 2009.

### Sales Chemicals



<sup>1</sup> IFRS 10 & 11 impact: -€1.3 billion; impact of new segment structure: +€5.3 billion

<sup>2</sup> Without Catalysts (now part of Functional Materials & Solutions segment)

### Chemicals strengthen the Verbund

The Chemicals segment provides key raw materials for BASF's downstream units on a reliable supply basis. These products are being transferred at market related pricing.

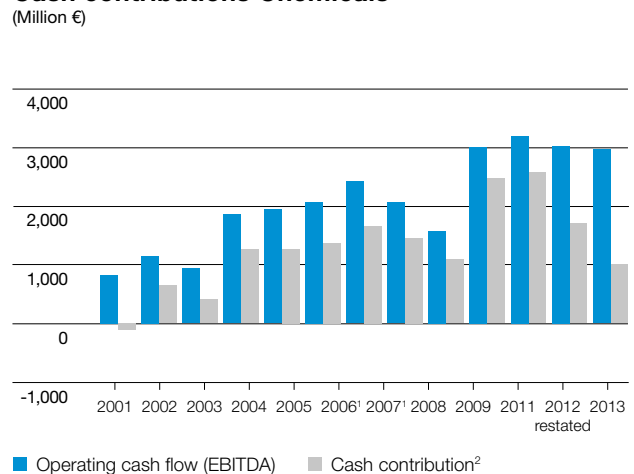
In order to participate in the growth of downstream markets BASF plans to invest approximately €6.5 billion until 2018 in the Chemicals segment focusing on emerging markets and participating in low cost shale gas in North America. These investments provide the base for further growth of BASF downstream businesses.

### Leading technology strengthens profitability

BASF is leading in process technologies and catalysis know-how. These technological advantages are directly transferred into favorable cost positions of the plants in the segment.

Industry leading technologies, Verbund advantages and operational excellence ensure that our investment projects have highly competitive cost positions. Thus, these projects will contribute significantly to growing earnings and profitability of the Chemicals segment.

### Cash contributions Chemicals



<sup>1</sup> Without Catalysts

<sup>2</sup> Cash contribution is here defined as EBITDA - additions to property, plant and equipment and intangible assets

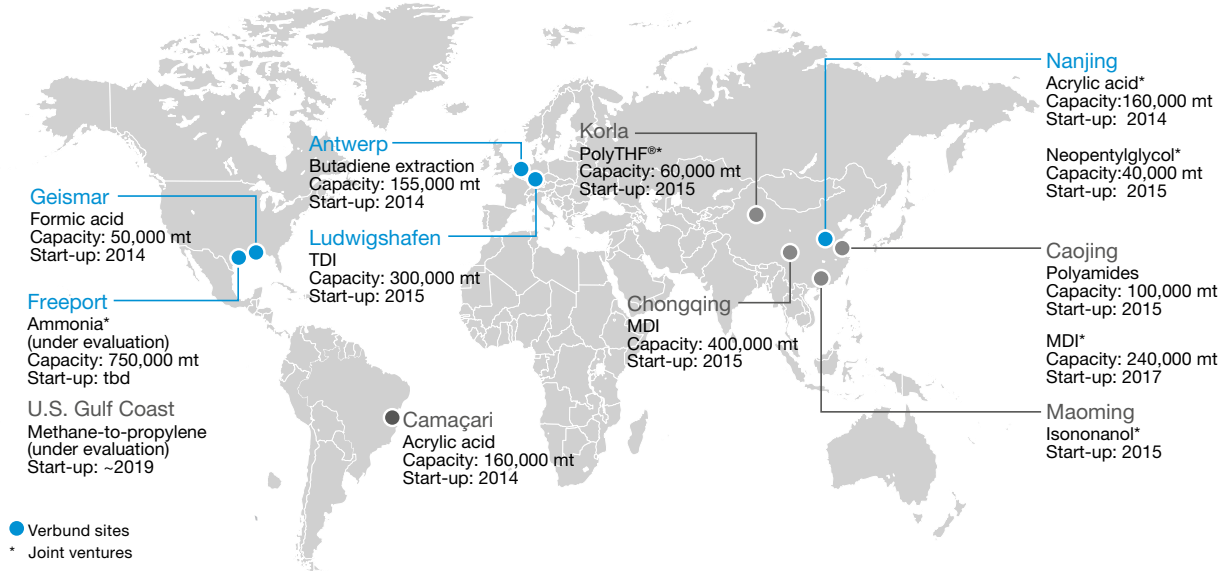


### Key facts Chemicals segment (2013)

- Core of each Verbund site
- Global asset footprint
- ~6,000 customers in all regions
- ~1,500 products<sup>1</sup>
- €178 million R&D expenses
- €6.4 billion transfers to BASF downstream divisions
- €17 billion sales to third parties
- €3.0 billion EBITDA

<sup>1</sup> Without electronic materials

**Sites with major announced investment projects**



**US-shale gas is a major opportunity for BASF**

As the second largest chemical producer in North America (based on sales) we benefit from low energy costs.

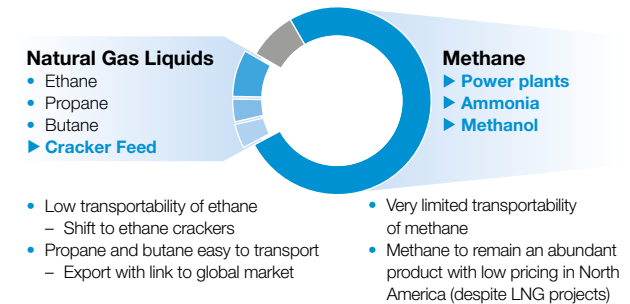
In Port Arthur we significantly improved profitability of the steam cracker by introducing full feedstock flexibility, which allows the predominant use of low cost Natural Gas Liquids (Ethane, Propane, Butane) from shale gas.

BASF also announced its intentions to establish an ammonia JV with Yara and to build a methane-to-propylene plant. Both projects will cover BASF's local demand, ensuring a secured and high utilization from start-up onwards.

In addition, we also invest in a formic acid plant. This new plant will enhance BASF's position in the North American market.

Methane will be a key raw material for BASF in North America in the future. It is volume-wise the largest component of shale gas and it is expensive to transport. Therefore, we expect methane to maintain its locally advantaged pricing.

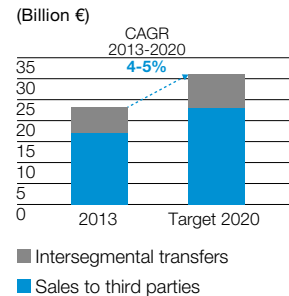
**Composition of shale gas**



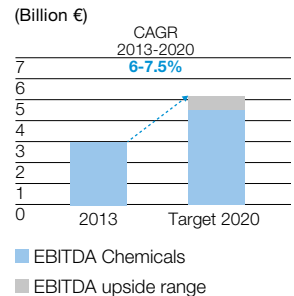
**BASF's Chemicals segment**

- Is a strong earnings and cash contributor
- Continues to strengthen the Verbund, creates synergies and adds value
- Maintains a high level of profitability through process innovations and stringent cost management
- Grows externally with the chemicals market
- Focused on enabling and supporting growth of BASF's downstream segments and BASF in emerging markets
- Utilizes shale gas as a major opportunity

**Sales Chemicals**



**EBITDA Chemicals**



## Petrochemicals

Petrochemicals are the heart of our unique Production Verbund

**The Petrochemicals division is the cornerstone of BASF's petrochemical-based value chains throughout the regions. The division manufactures and markets a broad portfolio of high-quality basic chemicals and tailored specialties for internal and external customers.**

### Cracker products

BASF produces the entire range of cracker products from ethylene and propylene to butadiene, butenes and benzene. Of these, propylene is the most important starting product for BASF's value-adding chains.

### Alkylene oxides and glycols

Ethylene oxide derived from ethylene is used mainly to produce surfactants, ethanalamines, glycols, glycol ethers and polyols. Ethylene glycol is a product used in antifreeze applications and for the production of fibers, films and PET (polyethylene terephthalate) plastic bottles. Propylene oxide is synthesized from propylene and serves as a base for a wide variety of products, including hydraulic fluids, propylene glycol and polyols. Polyols are used mainly for the production of polyurethanes.

### Alcohols and solvents

BASF is the world's largest producer of oxo alcohols and is also a major producer of oxygenated solvents in Europe, including acetates, glycol ethers, glycol ether acetates and specialty solvents. Our major customer industries are:

- Paints and coatings
- Pharmaceuticals
- Cosmetics

### Plasticizers and plasticizer raw materials

BASF manufactures standard and specialty plasticizers, which are used in chemical processes to make rigid plastics flexible. BASF also sells the plasticizer precursor phthalic anhydride for use in dyestuffs and unsaturated polyester resins and markets plasticizers based on higher alcohols. Our specialty product is the plasticizer Hexamoll® DINCH® used for sensitive applications such as toys and medical products.

### Acrylic monomers

BASF is the world's largest producer of acrylic monomers, which are sold to internal and external customers in the form of acrylic acid, acrylic esters and specialty acrylates. Acrylic monomers are used as precursors to manufacture acrylic polymers and polymer dispersions for various applications such as:

- Superabsorbent polymers
- Coatings
- Surfactants
- Flocculants

### BASF's market position

- Oxo alcohols: No. 1 globally
- Solvents: No. 2 in Europe
- Plasticizers: No. 2 in Europe
- Acrylic monomers: No. 1 globally
- Ethylene oxide and ethylene glycols: No. 2 in Europe
- Propylene oxide and propylene glycols: No. 3 in Europe

### Main competitors

- Cracker products: SABIC, Dow, ExxonMobil Chemical, Sinopec, LyondellBasell
- Alcohols and solvents: Dow, Eastman, ExxonMobil Chemical, Oxea, Evonik, Sinopec
- Plasticizers: ExxonMobil Chemical, Eastman, Evonik, Oxea
- Acrylic monomers: Dow, Nippon Shokubai, Arkema
- Ethylene oxide and glycols: Dow, SABIC, Sinopec, INEOS Oxide, Shell Chemicals
- Propylene oxide and glycols: Dow, LyondellBasell, Shell Chemicals, Sumitomo Chemical

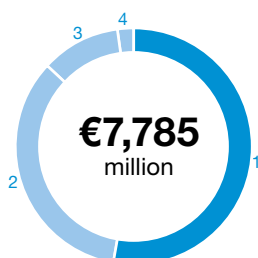
### Focus of research and development

The focus of R&D activities is on developing new and improved processes by adapting and optimizing feedstocks to supply our Verbund value chains at competitive costs. Product innovation is primarily focused on new applications for plasticizers for PVC and other materials and on development of specialty acrylates for specific customer needs.

### Sales by region 2013

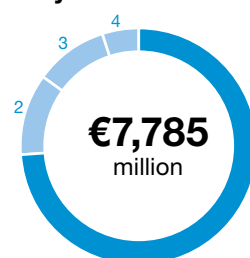
(Location of customer)

|                                       |     |
|---------------------------------------|-----|
| 1. Europe                             | 53% |
| 2. North America                      | 34% |
| 3. Asia Pacific                       | 11% |
| 4. South America, Africa, Middle East | 2%  |



### Sales by first customer industry 2013

|                         |     |
|-------------------------|-----|
| 1. Chemicals & Plastics | 74% |
| 2. Consumer Goods       | 11% |
| 3. Energy & Resources   | 10% |
| 4. Other                | 5%  |



**Key drivers of profitability**

- Cost leadership
- Leading process technology
- Economies of scale
- Competitive raw material supply
- High capacity utilization
- Efficient and reliable processes

**Key capabilities of BASF**

- Strong Verbund sites with backward integration
- World-scale production facilities
- Operational excellence
- Strong global market position with regional production
- Highly qualified and experienced personnel
- Outstanding market knowledge and technical capabilities

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group  | Description   | Year         |
|--|---|--------------|
| Ethylene, propylene                                    | Steam cracker expansion in Nanjing, China                                 | 2011         |
|  | Feedstock flexibilization and steam cracker expansion in Port Arthur, USA | 2013<br>2014 |
| Butadiene, ethylene oxide, isobutene, 2-propylheptanol | Second phase in Nanjing, China  | 2011         |
| Ethylene   | Member of joint venture EPS (Ethylene pipeline Southern Germany)          | 2012         |
| Hexamol® DINCH®  | Second production plant in Ludwigshafen, Germany                          | 2014         |
| Butadiene  | New butadiene extraction plant in Antwerp, Belgium                        | 2014         |
| Acrylic acid   | New acrylic acid and butyl acrylate complex in Camaçari, Brazil           | 2014         |
|  | New acrylic acid and butyl acrylate plants in Nanjing, China              | 2014         |
| Synthesis gas  | Extension of hydrogen plant in Ludwigshafen, Germany                      | 2015         |
| Isononanol   | New isononanol plant in Maoming, China                                    | 2015         |
| Propylene  | Methane-to-propylene plant on the U.S. Gulf Coast under evaluation        | -2019        |

**Major nameplate capacities of BASF (in thousand tons)**

| Product group                            | Location         |                  |                  |                 |                    |                   |                       |                       |                    |                 |                       |                  |                  |       | Total <sup>12</sup> |
|--|------------------|------------------|------------------|-----------------|--------------------|-------------------|-----------------------|-----------------------|--------------------|-----------------|-----------------------|------------------|------------------|-------|---------------------|
|  | Antwerp, Belgium | Camaçari, Brazil | Cornwall, Canada | Freeport, Texas | Geismar, Louisiana | Kuantan, Malaysia | Ludwigshafen, Germany | Moerdijk, Netherlands | Nanjing, China     | Pasadena, Texas | Port Arthur, Texas    | Singapore        | Tarragona, Spain |       |                     |
| Ethylene                                 | 1,080            | -                | -                | -               | -                  | -                 | 620                   | -                     | 740 <sup>1</sup>   | -               | 1,040 <sup>6,11</sup> | -                | -                | 3,480 |                     |
| Propylene                                | 650              | -                | -                | -               | -                  | -                 | 350                   | -                     | 370 <sup>1</sup>   | -               | 890 <sup>6,11</sup>   | -                | 350 <sup>3</sup> | 2,610 |                     |
| Propylene oxide                          | 300 <sup>4</sup> | -                | -                | -               | -                  | -                 | 125                   | 250 <sup>5</sup>      | -                  | -               | -                     | 250 <sup>5</sup> | -                | 925   |                     |
| Butadiene                                | 155 <sup>7</sup> | -                | -                | -               | -                  | -                 | 105                   | -                     | 130 <sup>1</sup>   | -               | 290 <sup>6,11</sup>   | -                | -                | 680   |                     |
| Benzene                                  | 280              | -                | -                | -               | -                  | -                 | 300                   | -                     | 130 <sup>1</sup>   | -               | 200 <sup>6,11</sup>   | -                | -                | 910   |                     |
| Cyclohexane                              | -                | -                | -                | -               | -                  | -                 | 130                   | -                     | -                  | -               | -                     | -                | -                | 130   |                     |
| Ethylene oxide (equivalents)             | 500              | -                | -                | -               | 220                | -                 | 345                   | -                     | 330 <sup>1</sup>   | -               | -                     | -                | -                | 1,395 |                     |
| Oxo C <sub>4</sub> alcohols              | -                | -                | -                | 300             | -                  | 330 <sup>2</sup>  | 560                   | -                     | 305 <sup>1</sup>   | -               | -                     | -                | -                | 1,495 |                     |
| Plasticizers (including Hexamol® DINCH®) | -                | -                | 35               | -               | -                  | 100 <sup>2</sup>  | 500 <sup>10</sup>     | -                     | -                  | 125             | -                     | -                | -                | 760   |                     |
| Acrylic acid                             | 320              | 160 <sup>8</sup> | -                | 230             | -                  | 160 <sup>2</sup>  | 320                   | -                     | 320 <sup>1,9</sup> | -               | -                     | -                | -                | 1,510 |                     |

All capacities in the table illustrate 100% capacity of the operations. BASF share might be lower based on JV shares.

<sup>1</sup> BASF 50%; JV with Sinopec

<sup>2</sup> BASF 60%; JV with Petronas

<sup>3</sup> BASF 51%; JV with Sonatrach

<sup>4</sup> BASF 50%; JV with Dow

<sup>5</sup> BASF 50%; JV with Shell

<sup>6</sup> BASF 60%; JV with Total

<sup>7</sup> Planned start-up Q3 2014

<sup>8</sup> Planned start-up Q4 2014

<sup>9</sup> Start-up of new 160 kt plant in Q2 2014

<sup>10</sup> Start-up of new 100 kt plant in Q2 2014

<sup>11</sup> Start-up of 10th furnace in Q1 2014

<sup>12</sup> Including plants under construction

**On purpose C4 production – butane dehydrogenation**

The petrochemical industry relies on naphtha-cracking to obtain co-products such as butadiene. The current shift to lighter cracker feedstock results in reduced volumes of such co-products. To meet the incremental demand, we are developing an on-purpose butadiene technology with an external partner. The new process will deliver a route from butane to butadiene via butenes. Butadiene is a monomer used for the production of polymers, paper coating and synthetic rubber mainly for tire production.



# Monomers

Attractive business mix driven by excellence in commodities

**The Monomers division supplies a broad portfolio of large-volume monomers, basic polymers and inorganic chemicals. The major products include MDI (diphenylmethane diisocyanate), caprolactam, adipic acid, polyamide 6 and 6.6, ammonia, nitric acid, sulfur and chlorine products, inorganic salts, urea, melamine, glues and impregnating resins as well as specialties such as electronic materials. The products can be found in an extensive spectrum of industries, such as the automotive, furniture, building and construction, woodworking, food, solar, packaging, textile and electronic industries.**

## Inorganic chemicals

Inorganic chemicals are mainly used as precursors for plastics, amines and other high-value chemicals. The product portfolio ranges from basic chemicals to inorganic salts:

- Ammonia
- Chlorine
- Caustic soda
- Nitric acid
- Sulfuric acid
- Standard alcoholates
- Ammonium salts

More than half of these products are for captive use within BASF's Verbund. The remaining products are sold primarily to other chemical companies. Additionally, we are one of the leading suppliers of sodium nitrate, which is used as a component for solar thermal power plant storage media and sodium methylate, a catalyst used for the growing market of biodiesel.

## Isocyanates

The portfolio of isocyanates includes MDI and TDI. BASF is the world leader in isocyanates, which are key components to produce soft or rigid foams. MDI is a versatile isocyanate that can be used to make flexible foams as well as semi-rigid and rigid polyurethane plastics. Its primary applications are construction, consumer appliances, automotive components and shoe soles. TDI is an isocyanate used primarily in the manufacturing of flexible foams. Its main applications include mattresses and cushions for furniture and automotive seating.

## Polyamides and intermediates

BASF is the world's leading supplier of high-quality polyamides and polyamide intermediates for the extrusion, engineering plastics and fiber industries. Ultramid®, BASF's high-quality polyamide brand, is the material of choice for many applications:

- Films for food packaging
- Monofilaments (industrial wires, fishing lines, weed trimmers, etc.)
- Carpets and textiles

BASF also manufactures intermediate products such as caprolactam for polyamide 6 and adipic acid for polyamide 6.6.

## Glues and impregnating resins

BASF offers a wide variety of tailor-made glues and impregnating resins, which are used to manufacture many different types of panel boards and laminated flooring for the woodworking industry. Additionally, the unit produces AdBlue®, a high-purity urea solution that is used in trucks to reduce NO<sub>x</sub> emissions from diesel engines.

## Electronic materials

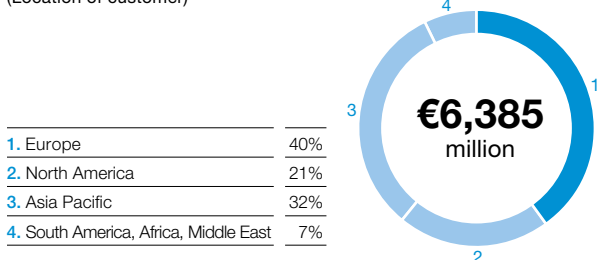
BASF produces a variety of inorganic specialties in electronic grade. The innovative products are mainly used in the field of:

- Advanced cleaning & etching of wafers for semiconductors
- Wet deposition
- Chemical mechanical planarization (CMP)

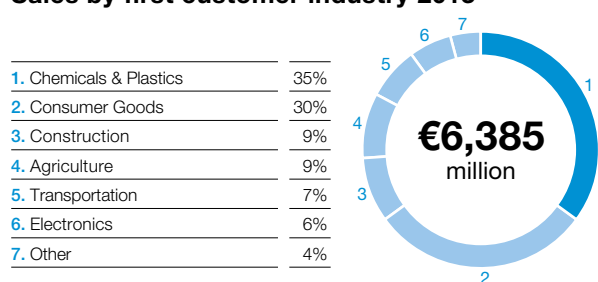
The portfolio also includes carbonyl iron powder (CIP) and Catamold® for metal and ceramic injection molding. CIP is used in a wide range of applications, such as inductor cores in the information and communication technology (ICT) industry. Catamold® is ideal for manufacturing geometrically sophisticated shapes.

### Sales by region 2013

(Location of customer)



### Sales by first customer industry 2013





**BASF's market position**

- TDI: No. 1 globally, MDI: No. 1 globally
- Polyamide film: No. 1 globally
- Inorganic chemicals: No. 1 in inorganic salts in Europe and South America
- Glues and impregnating resins: No. 1 in glues in Europe
- Electronic materials: leading market position in Asia and Europe

**Main competitors**

- Inorganic chemicals: Evonik, Esseco
- Glues and impregnating resins: Dynea, Sadepan
- Polyamide film: DSM, Ube, Zig Sheng
- TDI: Bayer Material Science, Wanhua, Mitsui, Dow
- MDI: Bayer Material Science, Wanhua, Huntsman, Dow
- Polyols: Dow, Bayer Material Science, Shell
- Electronic Materials: ATMI, OMG

**Focus of research and development**

As its main focus, process innovation aims to optimize existing production technologies and develop new, highly efficient processes offering considerable cost advantages. For specialty products, such as electronic materials, the focus is on developing innovative solutions to meet future challenges.

**Key drivers of profitability**

- Cost leadership
- Leading process technology
- Economies of scale
- Competitive raw material supply
- High capacity utilization
- Efficient and reliable processes

**Key capabilities of BASF**

- Strong Verbund sites with backward integration
- World-scale production facilities
- Operational excellence
- Strong global market position with regional production set ups
- Highly qualified and experienced personnel
- Outstanding market knowledge and technical capabilities

**Process optimization**

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.

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group               | Description   | Year |
|-----------------------------|---|------|
| Ammonia                     | Planned JV with Yara in Freeport, USA   | tbd  |
| Inorganic chemicals         | Start-up of new oleum plant in Antwerp, Belgium   | 2011 |
|                             | Start-up of new sodium methylate plant in Guaratinguetá, Brazil   | 2011 |
| Polyamide and intermediates | Acquisition of polyamide polymer business from Mazzaferro Group, Brazil                                       | 2012 |
|                             | Start-up of new polyamide plant Caojing, China  | 2015 |
| Metal systems               | New technical service lab for Catamold® in Shanghai, China  | 2012 |
|                             | New Catamold® plant in Kuan Yin, Taiwan   | 2014 |
| Electronic materials        | New R&D Center for Electronic Materials in South Korea  | 2013 |
| MDI                         | New MDI splitter in Dahej, India  | 2014 |
|                             | New MDI complex in Chongqing, China   | 2015 |
|                             | Expansion of MDI-JV in Caojing, China   | 2017 |
| TDI and precursors          | Acquisition of parts of Ciech's TDI business, Poland  | 2013 |
|                             | New world-scale TDI plant in Ludwigshafen including expanded backward integration of chlorine and nitric acid | 2015 |

**Divestitures/Shutdowns (from 2011 onward)**

| Product group | Description  | Year |
|---------------|--|------|
| Fertilizers   | Sale of 50% share in JV PEC-Rhin to GPN                        | 2012 |
|               | Sale of fertilizers activities in Antwerp, Belgium to EuroChem | 2012 |

**Major nameplate capacities of BASF**

| Product group                 | Capacity (in thousand tons) |
|-------------------------------|-----------------------------|
| Ammonia                       | 1,525                       |
| Caustic soda                  | 360                         |
| Chlorine                      | 385                         |
| Glues and impregnating resins | 750                         |
| Sulfuric acid                 | 920                         |
| Urea                          | 545                         |
| Caprolactam                   | 800                         |
| Polyamide                     | 720                         |
| MDI                           | 1,340                       |
| TDI                           | 560                         |



## Intermediates

### Industry leading product and technology portfolio

**The Intermediates division manufactures about 700 products – including butanediol and derivatives, amines, organic acids, polyalcohols, life science intermediates, solvents and OASE® gas treating solutions – which are sold worldwide. They are generally quite resilient to economic cycles and are often the result of multi-step production processes within BASF. Customers typically purchase them as precursors for their downstream chemicals. The Intermediates division focuses primarily on the C1 value chain.**

#### Butanediol and its derivatives

BASF is the world's largest manufacturer of 1,4-butanediol, which is a chemical building block for products such as polyesters and polyurethanes. Its derivatives are used to manufacture products ranging from fibers to paints and include polybutylene terephthalate (PBT), tetrahydrofuran (THF), PolyTHF®, gamma-butyrolactone and N-methylpyrrolidone.

#### Amines

With about 300 different amines, we have the world's most diverse portfolio of this type of chemical intermediates. Along with alkyl-, alkanol-, alkoxyalkylamines, we offer heterocyclic and aromatic as well as specialty amines. The range is completed by an expanding portfolio of chiral amines of high optical and chemical purity. The versatile products are used mainly to manufacture process chemicals, pharmaceuticals and crop protection agents, as well as cosmetic products and detergents. They also serve to produce coatings, special plastics, composites and special fibers.

#### Acids and specialties

BASF is the globally leading manufacturer of carboxylic acids such as formic and propionic acid. Besides these also 2-ethylhexanoic acid is part of BASF's portfolio. Carboxylic acids are used as preservatives for the feed and food industries, as auxiliaries for textile and leather applications as well as de-icing agents.

BASF's specialties such as acid chlorides and chloroformates, glyoxal and its derivatives, and various other chemicals, such as glutaraldehyde, formamide and triphenylphosphine, are often used in the production of crop protection agents, polymers, pharmaceuticals and paper.

#### Polyalcohols and specialties

Being the leading manufacturer of 1,6-hexanediol and neopentylglycol (Neol®) worldwide, we offer these products as well as other polyalcohols mainly for the production of a wide range of coatings. Our specialties portfolio includes carbonates for electrolyte production for the battery industry and various specialty acetylenics, such as vinyl monomers and higher alkylpyrrolidones.

#### Highlight: Intermediates innovation pipeline

The Intermediates division follows a clear innovation strategy, which is key for all product lines to grow the businesses and improve profitability. Its focus lies on three pillars:

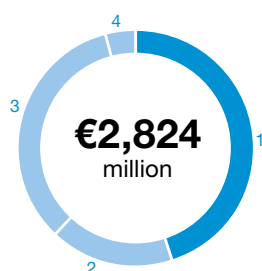
- New and improved processes: The target is to remain best in class with regard to production and process economics
- New applications: We look for new applications for existing products, like formic acid for better cleaning of sugar cane mills in South America
- New products: We develop new products like bio-based succinic acid for new growth opportunities

The total innovation pipeline of the Intermediates division has an estimated net present value of approximately €500 million (not risk adjusted, 2013 view).

#### Sales by region 2013

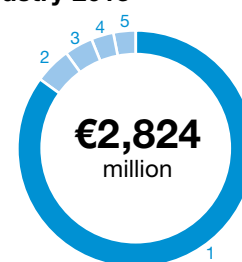
(Location of customer)

|                                       |     |
|---------------------------------------|-----|
| 1. Europe                             | 45% |
| 2. North America                      | 17% |
| 3. Asia Pacific                       | 34% |
| 4. South America, Africa, Middle East | 4%  |



#### Sales by first customer industry 2013

|                         |     |
|-------------------------|-----|
| 1. Chemicals & Plastics | 85% |
| 2. Health & Nutrition   | 5%  |
| 3. Agriculture          | 4%  |
| 4. Energy & Resources   | 3%  |
| 5. Consumer Goods       | 3%  |



**BASF's market position**

BASF is among the top three producers worldwide of its products in all strategic intermediates business units.

**Main competitors**

- Amines: Taminco, Dow, Huntsman
- Butanediol and derivatives: Ashland, LyondellBasell, Dairen
- Polyalcohols and specialties: Eastman, Perstorp, LG
- Acids and specialties: Taminco, Perstorp, Eastman, Luxi

**Focus of research and development**

Innovation focuses on process improvements, new product and new process developments built on value chain integration while leveraging our broad technological strengths and close customer partnerships.

**Key drivers of profitability**

- Cost leadership
- Leading process technology
- Economies of scale
- Competitive raw material supply
- High capacity utilization
- Efficient and reliable processes
- Successful implementation of innovation projects

**Key capabilities of BASF**

- Strong Verbund sites with backward integration
- World-scale production facilities
- Operational excellence
- Strong global market position with regional production
- Highly qualified and experienced personnel
- Outstanding market knowledge and technical capabilities
- Strong innovation pipeline

**Commercial volumes of butanediol (BDO) from renewable raw material**

BASF has produced its first commercial volumes of 1,4-BDO from renewable raw material, and is offering this product to customers for testing and commercial use. The production process relies on a patented fermentation technology from Genomatica. The fermentation process uses dextrose as a renewable feedstock. The quality of BDO made from renewable raw material is comparable to BDO made from petrochemicals. BASF plans to expand its portfolio with selected BDO derivatives based on renewable feedstock.

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group                              | Description  | Year    |
|--|--|---------|
| Methylamines                               | New plant in Geismar, USA  | 2011    |
| Amines                                     | New amines complex in Nanjing, China   | 2011/12 |
| Specialty chemicals                        | Acquisition of Novolyte Technologies specialty chemicals in North America                        | 2012    |
| PolyTHF®                                   | Global capacity increase from 185,000 tons to 250,000 tons                                       | 2012/13 |
| Bio-based succinic acid                    | 50-50 JV with Corbion-Purac for bio-based succinic acid; first phase 10,000 tons Montmeló, Spain | 2013    |
| Tert.-Butylamine                           | New plant in Nanjing, China  | 2013    |
| Formic acid                                | New plant in Geismar, USA  | 2014    |
| 1,6-Hexanediol                             | Capacity expansion in Freeport, USA and Ludwigshafen, Germany                                    | 2014    |
| Dimethylamino-propylamine, polyetheramines | New plant in Nanjing, China (100% BASF)  | 2015    |
| Specialty amines                           | New plant in Ludwigshafen, Germany   | 2015    |
| 1,4-Butanediol (BDO) and PolyTHF®          | BASF and Markor established two JVs in Korla, China (BDO 100,000 tons and PolyTHF 50,000 tons)   | 2015    |
| Neopentylglycol (NPG)                      | New plant in Nanjing, China  | 2015    |

**Divestitures/Shutdowns (from 2011 onward)**

| Product group    | Description                 | Year |
|------------------|-----------------------------|------|
| Methylamines/DMF | Closure at Camaçari, Brazil | 2011 |
| Phosphines       | Closure at Zachary, USA     | 2014 |

**Major nameplate capacities of BASF**

| Product group                 | Capacity (in thousand tons) |
|-------------------------------|-----------------------------|
| Alkylamines                   | 250                         |
| Ethanolamines and derivatives | 400                         |
| Butanediol equivalents        | 535                         |
| PolyTHF®                      | 290                         |
| N-Methylpyrrolidone (NMP)     | 70                          |
| 1,6-Hexanediol                | 50                          |
| Neopentylglycol (Neol®)       | 165                         |
| Formic acid                   | 255                         |
| Propionic acid                | 150                         |



## 2.2 Performance Products



BASF has established a technology platform to further develop enzymes for different applications. Enzymes are for instance used in laundry detergents and dishwashing to remove certain stains even at lower temperatures thus saving energy resources.

### Page 48

BASF's **Dispersions & Pigments** division supplies products for the paints and coatings industry.

### Page 50

Our **Care Chemicals** division is the leading raw material supplier for detergents and cleaners and for the hygiene industry. We are also the leading supplier of ingredients for the personal care and cosmetics industries.

### Page 52

The **Nutrition & Health** division supplies a comprehensive range of products for the nutrition and health markets as well as for the flavor and fragrance industry. We also supply high-performance and natural-based ingredients for human nutrition.

### Page 54

The **Paper Chemicals** division offers a comprehensive portfolio for paper manufacturing and paper coating.

### Page 56

Our **Performance Chemicals** division is an innovative partner for various industrial customer sectors and offers specific system solutions. The division is the leading global supplier for plastic additives.

Our innovative solutions contribute to the functionality and performance of industrial and consumer products produced by virtually all manufacturing industries around the world. Our solutions also help our customers to run their processes more successfully. We are the preferred partner for developing new products, system solutions and applications in close cooperation with our customers. Our broad range of customer industries and our regional portfolio make us less sensitive to sectoral volatilities. We have enhanced our portfolio by acquiring Verenum, a specialized enzyme biotechnology company as well as Henkel's detergents enzyme technology. In order to strengthen our competitiveness, we have decided on numerous restructuring measures for our businesses.

### Segment data Performance Products

| (Million €)  | 2009  | 2010 <sup>1</sup> | 2011   | 2012 <sup>2</sup> | 2013   |
|--|-------|-------------------|--------|-------------------|--------|
| Sales to third parties   | 9,356 | 12,288            | 15,697 | 15,713            | 15,534 |
| Share of total BASF sales (%)  | 18.5  | 19.2              | 21.4   | 21.8              | 20.9   |
| Thereof Dispersions & Pigments                                       | 2,445 | 3,197             | 3,509  | 3,668             | 3,557  |
| Care Chemicals   | 2,067 | 2,755             | 5,174  | 4,898             | 4,871  |
| Nutrition & Health   | 1,338 | 1,482             | 1,862  | 1,959             | 2,088  |
| Paper Chemicals  | 1,326 | 1,713             | 1,623  | 1,564             | 1,442  |
| Performance Chemicals  | 2,180 | 3,141             | 3,529  | 3,624             | 3,576  |
| Income from operations before depreciation and amortization (EBITDA) | 926   | 2,162             | 2,312  | 2,090             | 1,987  |
| EBITDA margin (%)  | 9.9   | 17.6              | 14.7   | 13.3              | 12.8   |
| Income from operations (EBIT) before special items                   | 698   | 1,554             | 1,727  | 1,421             | 1,365  |
| EBIT before special items margin (%)                                 | 7.5   | 12.6              | 11.0   | 9.0               | 8.8    |
| Income from operations (EBIT)  | (150) | 1,345             | 1,361  | 1,276             | 1,100  |
| EBIT margin (%)  | –     | 10.9              | 8.7    | 8.1               | 7.1    |

<sup>1</sup> Cognis data is included as of December 9, 2010. To prepare for the integration, the divisional structure of the segment was modified as of August 1, 2010: The existing Care Chemicals division was split into the Care Chemicals division and the Nutrition & Health division. The figures for segment reporting for the previous year have been adjusted accordingly

<sup>2</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly. These restated prior year figures also take into account the new segment structure as of January 1, 2013

### Segment sales 2013

(Million €)

|                           |       |
|---------------------------|-------|
| 1. Dispersions & Pigments | 3,557 |
| 2. Care Chemicals         | 4,871 |
| 3. Nutrition & Health     | 2,088 |
| 4. Paper Chemicals        | 1,442 |
| 5. Performance Chemicals  | 3,576 |



### Performance Products 2013

(Million €)

EBITDA

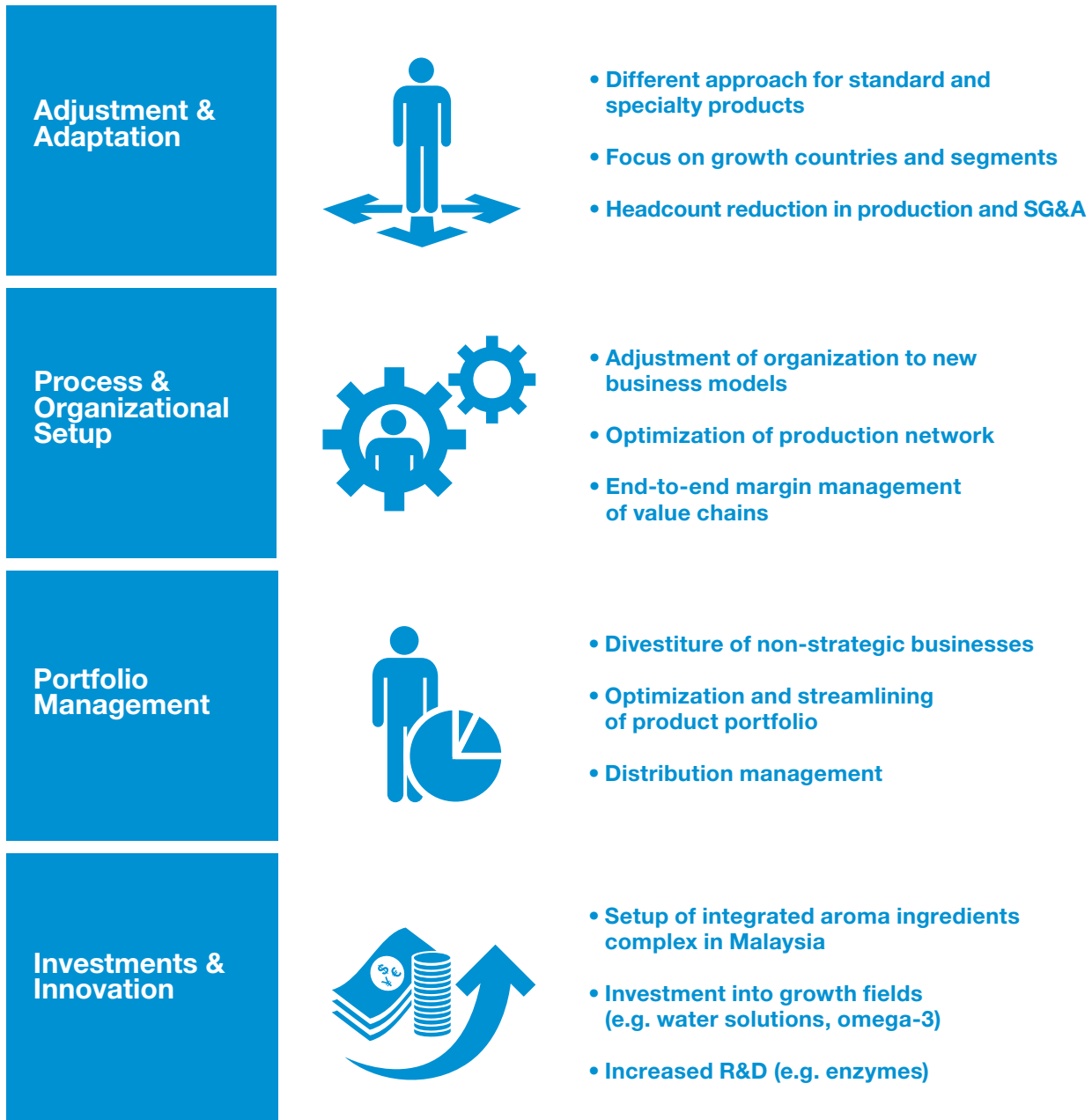
EBIT before special items

1,987

1,365

## Restructuring Performance Products

Improving competitiveness through value-adding measures



Annual earnings contribution from 2017 onwards

~€500 million

Reduction until 2017

>2,000 positions

## Implemented measures

### Dispersions & Pigments

**Production:** Optimization of global pigments production network

- Closure of production plants in Paisley, UK and Qingdao, China and restructuring in Huningue, France
- Evaluation of strategic options for the site in Maastricht, the Netherlands

**Organization:** Scale down of plastics additives in the Basel area, Switzerland

**Divestiture:** Liquid masterbatches and Vinuran® PVC Modifier business

**Growth:**

- Investment of around €250 million over the next four years in production network and R&D
- Strong investment into R&D for electronics specialties (photoinitiators, pigments)
- Start-up and expansion of pigments/formulation additives plants (Nanjing/China, Ulsan/Korea) and dispersions (e.g. Dahej/India, Freeport/USA, Pasir Gudang/Malaysia)

### Care Chemicals

**Production:** Optimization and restructuring of sites

**Organization:** Headcount reduction in Europe and North America, adjusting cost structure

**Business Models:** Realignment business models and processes for home care, industrial & institutional cleaning and formulation technologies business

**Growth:**

- Acquisition of Henkel's enzyme technology
- Strong investment into R&D
- Start-up of plants for SAP, Trilon® M and surfactants (Nanjing/China, Camaçari/Brazil, Theodore/USA, Dahej/India)
- Investment into Grenzach site, Germany

### Nutrition & Health

**Production:** Site-network consolidation

**Organization:**

- Processes adjusted to better meet changing consumer needs and regional demands
- Reduction of headcount in marketing, sales and administration
- Global team for marketing & innovation to accelerate creation of customer-oriented products and solutions

**Divestiture:** Optimization of the omega-3 fatty acids Verbund by selling the Brattvåg site in Norway

**Portfolio:** Adjusting product portfolio to changing consumer needs

**Growth:**

- Enzymes: Acquisitions and investment into R&D (refer to enzyme part)
- Omega-3 fatty acids: Acquisition of Equateq and Pronova Biopharma ASA for highly concentrated omega-3 fatty acids
- New menthol plant in Ludwigshafen, Germany
- Construction of a new citral & integrated aroma ingredients complex together with Petronas in Malaysia (Kuantan, Malaysia)

### Paper Chemicals

**Production:** Adjustment of capacities in the European latex manufacturing network with a reduction of an annual capacity of 120,000 metric tons

**Organization:** Adjustment of marketing, sales and administrative functions

**Divestiture:** Alkyl ketene dimer (AKD) business in Europe and North America to Kemira

**Growth:**

- R&D investment for cost-efficient binders, micro-fibrillated cellulose
- Center of sustainable paper packaging to meet future trends
- Expansion of polyvinylamine and vinyl formamide production in Ludwigshafen

### Performance Chemicals

**Production:** Restructuring of production sites e.g. Bradford and Grimsby, UK

**Organization:**

- Adjustment to market needs and dynamics, focus on sites in the Basel area (Switzerland)
- Formation of a new global business unit water, oilfield & mining solutions

**Divestiture:**

- Industrial water management
- PolyAd services business

**Portfolio:** Refocussing on growth markets and high value adding applications in the leather & textile chemicals business

**Growth:**

- New bio-acrylamide process for the PAM value chain
- R&D projects for enhanced oil recovery

## One-time costs

€250-300 million

## Investments into the future

- Innovations and R&D
- Organic growth; capital expenditures
- Selected acquisitions in growth fields

## Dispersions & Pigments

Leading global supplier of raw materials for the paints and coatings industry

**BASF is the leading global supplier of raw materials for the paints and coatings industry. The Dispersions & Pigments division combines all BASF products geared toward this industry. The portfolio encompasses dispersions, pigments, resins and a broad range of additives, such as performance and formulation additives. Further end-user industries include construction materials, adhesives, printing and packaging, automotive and electronic specialties as well as plastic products. Our portfolio is especially strong with environmentally friendly systems, such as low-volatile organic compound (VOC) water-based coatings.**

### Dispersions

Polymer dispersions are water-based systems used in the production of adhesives, sealants, architectural coatings, construction chemicals and non-woven materials. Our strength lies in our backward integration into acrylics and the division's strong technical expertise and application know-how.

### Pigments

Pigments are insoluble coloring and iridescent materials used in paints, inks and special applications. BASF is the leading pigment supplier worldwide, with a particular strength in high-performance pigments. Our product portfolio comprises a wide range of organic and inorganic pigments, effect pigments, and pigment preparations.

BASF offers a unique portfolio covering the entire color range. The main end-user industries are:

- Automotive coatings
- Decorative paints and industrial coatings
- Printing and packaging
- Electronic specialties
- Plastics

### Resins

Resins are film-forming components used in energy-curable coatings, urethane or melamine as well as water-based coatings and inks. The comprehensive product portfolio includes water-based resins, acrylic oligomers, polyisocyanates, amino resins, aldehyde resins, dimers, vinyl chloride copolymers, and high-solid polyols.

We offer customer solutions fulfilling regulatory requirements regarding VOC. The main applications are:

- Automotive coatings
- Wood coatings
- Protective coatings
- Printing and packaging

### Additives

BASF offers a broad range of additives that significantly improve the quality and performance of many paints and coatings. BASF is the market leader for performance additives particularly in the following areas:

- Photoinitiators
- Light stabilizers

Photoinitiators enable coatings to be cured in just fractions of a second. Light stabilizers protect polymers against ultraviolet light and its negative effects.

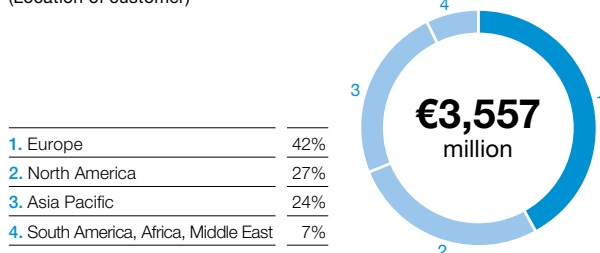
The formulation additives portfolio comprises:

- Dispersing agents
- Wetting agents and surface modifiers
- Defoamers
- Rheology modifiers
- Film-forming agents

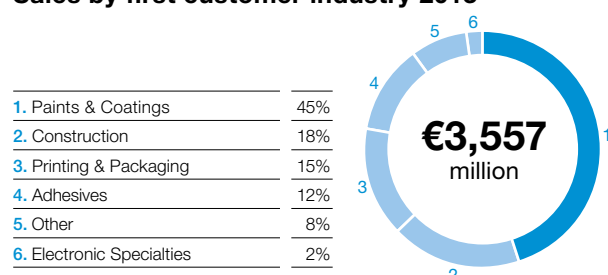
Dispersing agents enable pigment dispersion capability. Wetting agents and surface modifiers improve colorant compatibility or enhance substrate wetting and flow properties. Defoamers destroy foam and its negative effects. Rheology modifiers adjust the flow behavior of paints while film-forming agents enable formulation of films.

### Sales by region 2013

(Location of customer)



### Sales by first customer industry 2013





**BASF's market position**

- Dispersions: No. 2 globally for adhesives, construction chemicals, architectural coatings and fiber bonding materials
- Pigments: No. 1 globally, broadest portfolio of colors and chemical product classes
- Resins: No. 1 globally in water-based resins for printing and packaging
- Additives: No. 1 globally in photoinitiators and light stabilizers, broad portfolio of formulation additives

**Main competitors**

- Dispersions: Dow, Celanese, Arkema
- Pigments: Clariant, DIC, ALTANA
- Resins: Cytec, Bayer, Dow
- Additives: ALTANA, Evonik, Elementis

**Focus of research and development**

We significantly invest in research and development to create innovative, differentiating and more sustainable products and solutions. Our innovations allow our customers to offer environmentally friendly solutions with dispersions for application in the coatings, printing, adhesives and construction industries. In addition, customers benefit from new and improved resins, pigments, photoinitiators and formulation additives.

**Key drivers of profitability**

- Cost leadership
- Superior product performance, quality consistency and reliability
- Technical service and application know-how
- Global production footprint close to relevant markets

**Key capabilities of BASF**

- Leading technology and cost position enable consistent product quality, reliability and competitiveness
- Comprehensive portfolio of raw materials for coatings, printing & packaging inks, adhesives and construction materials
- Strong technical and application know-how, professional service, close to our customers

**Lumina Royal Blue – High chroma pigment for majestic effects**

BASF's high performance color and effect pigments have long been established in the coating industry. This unique portfolio is designed to meet the end-user's ever-changing aesthetic and styling needs by offering high performance colors and novel effects. Lumina Royal Blue is the first member of a new "royal family", a pigment family based on an optimized mica substrate which offers highest chromaticity and reflectivity. The new Lumina Royal Blue gives our customers new styling options and greater formulation flexibility.

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group | Description  | Year |
|---------------|--|------|
| Dispersions   | New plant in Huizhou, China                            | 2012 |
|               | New dispersions plant start-up in Durban, South Africa | 2012 |
|               | New plant in Dahej, India                              | 2014 |
|               | New dispersions plant start-up in Freeport, Texas      | 2014 |
| Additives     | New plant Nanjing, China                               | 2014 |

**Divestitures/Shutdowns (from 2011 onward)**

| Product group       | Description   | Year    |
|---------------------|---|---------|
| Pigments            | Several restructuring measures to streamline product portfolio and production setup | ongoing |
|                     | Closure of plant in Paisley, Scotland   | 2015    |
|                     | Restructuring of the Huningue site, France  | ongoing |
|                     | Consideration of strategic options for Maastricht, the Netherlands                  | ongoing |
| Printing inks       | Divestiture of the printing ink business  | 2012    |
| Curing agents       | Divestiture of the product line Capcure®  | 2012    |
| Liquid materbatches | Divestiture of liquid masterbatch business to Audia International                   | 2014    |
| PVC modifiers       | Divestiture of the Vinuran® PVC modifier business to Kaneka                         | 2014    |

**Major production sites**

BASF's dispersions, pigments, resins and additives are produced at 39 sites worldwide. Our most important sites for each product group are listed below.

| Product group | Site   |
|---------------|--|
| Dispersions   | Ludwigshafen, Germany; Monaca, USA; Shanghai, China; Guaratinguetá, Brazil; Durban, South Africa |
| Pigments      | Ludwigshafen and Besigheim, Germany; Monthey, Switzerland; Newport, USA; Ulsan, South Korea      |
| Resins        | Ludwigshafen, Germany; Heerenveen, the Netherlands; Wyandotte, USA; Shanghai, China              |
| Additives     | Heerenveen, the Netherlands; Mortara, Italy; Nanjing, China                                      |



## Care Chemicals

Innovating for human well-being

**BASF's Care Chemicals division offers a broad range of ingredients for hygiene, personal care, home care, industrial and institutional cleaning, and technical applications. We are the leading global supplier for the hygiene, cosmetics and detergents and cleaners industries and support our customers' with innovative and sustainable products, solutions and concepts. Our production and development sites are located in all regions and we are expanding our presence in the emerging markets. We are where our customers need us around the world.**

### Personal care

We supply high-quality, added-value ingredients for the personal care industry. Our focus on consumer trends, specific industry requirements and ability to innovate and bring new products rapidly to market contribute strongly to the success of customers. The personal care product range includes:

- Surfactants and emulsifiers
- Polymers
- Emollients
- Cosmetic active ingredients
- Pigments
- UV filters

Our commitment and business approach draws its inspiration for products and concepts from consumers and society, exemplified by our brand, Care Creations™, which clearly expresses our strengths of science excellence and market knowledge – making BASF personal care a valued partner for the personal care industry.

### Home care and industrial & institutional cleaning

Based on our broad expertise, we create choices for our customers in the home care and industrial & institutional cleaning industries, supporting them to get the best possible solutions to successfully meet today's and tomorrow's market needs and changing regulatory conditions. Our broad range of ingredients includes surfactants, polymers, chelating agents, optical effect products, stabilizers, biocides and methanesulfonic acid. With our strong R&D base and deep application know-how, we enable innovations making cleaning processes more convenient, safe and efficient. With our recent acquisitions in enzyme technologies, we want to further contribute to innovative solutions for global challenges such as saving energy and resources.

### Hygiene

BASF's Hygiene business supplies outstanding innovations and pioneering hygiene solutions all over the world contributing to sustainable development. Superabsorbents used in various hygiene applications such as diapers, adult incontinence and feminine hygiene articles. With our global network of research, production and service sites, we are close to our customers. Through our intimate market knowledge and excellent R&D expertise, we aim to foster trusted and reliable relationships with customers and partners in the global hygiene industry.

### Formulation technologies

BASF's formulation technologies business has an excellent track record of delivering solutions for a wide range of applications. Key applications are additives for industrial formulations and process aids that improve chemical reactions and physical-chemical processes. Building blocks with surface active properties are another key area supporting our chemical processing customers. We use our product and technology platforms to leverage synergies between the various applications.

The formulation technologies product range includes:

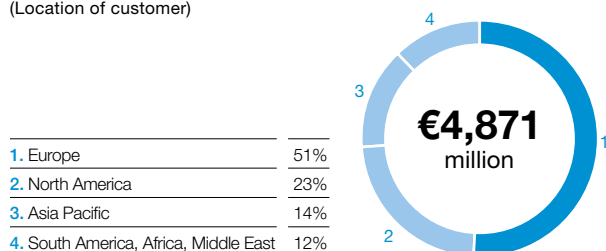
- Surfactants (anionic and nonionic)
- Reactive polyalkyleneglycols
- Water-soluble polymers
- Chelating agents
- Biocides
- Waxes and wax emulsions
- Methanesulfonic acid
- Silicates

### Agricultural chemical (AgChem) additives

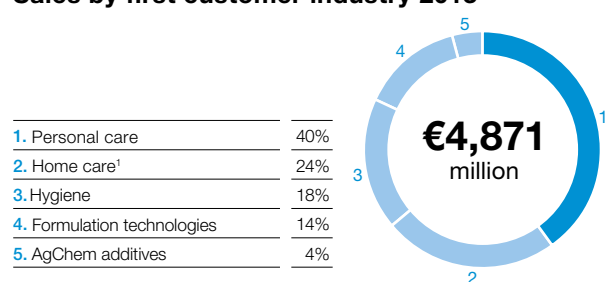
We offer a wide range of additives for the agricultural industry. These additives are used in crop protection formulations to enhance the efficacy of pesticides in various applications. Typical product lines are surfactants and water-soluble polymers as well as solvents. We offer biodegradable products based on renewable resources like lactic acid derivatives.

### Sales by region 2013

(Location of customer)



### Sales by first customer industry 2013



<sup>1</sup> Includes industrial & institutional cleaning

## BASF's market position

Globally leading supplier for home care, hygiene and personal care.

### Main competitors

- Hygiene: Evonik, Nippon Shokubai, SanDia
- Personal care: Ashland, Croda, Stepan, Evonik, Solvay, Sasol
- Home care, industrial & institutional cleaning: Dow, AkzoNobel, Clariant
- Formulation technologies: Dow, Clariant, Arkema
- AgChem additives: AkzoNobel, Clariant, Solvay

### Focus of research and development

R&D resources are mainly focused on product innovations in addition to process innovation and improving the application properties of existing ingredients. We systematically generate ideas for new products in close collaboration with our customers, achieving innovation leadership in key product segments. Continuous process innovation ensures technological and cost leadership in major product lines.

#### Key drivers of profitability

- Customer proximity and market focus
- Solid understanding of unmet market needs along the value chain
- Innovative customer solutions for premium product segments
- Cost leadership for major products in standard quality

#### Key capabilities of BASF

- Comprehensive technical application and market know-how to serve unmet market needs
- Innovative and sustainable solutions through BASF's global R&D network
- State-of-the-art formulation technologies
- Strong production position and market presence in major emerging markets and regions
- Supply reliability
- Cost leadership, large-volume supply ability

## Luviset® One

Until recently, it has been necessary to use a combination of polymers in hair styling products in order to achieve styling performance (styling polymer), and to increase the viscosity (polymeric thickener) of a solution. Luviset® One is an all-in-one solution that optimizes the formulation process by simultaneously working as a styling and thickening agent.

## Acquisitions/JVs/Investments (from 2011 onward)

| Product group        | Description  | Year |
|----------------------|--|------|
| Surfactants          | New plant for non-ionic surfactants in Nanjing, China  | 2011 |
|                      | New plant in Dahej, India  | 2014 |
| Superabsorbents      | Expansion of superabsorbents in Freeport, Texas  | 2011 |
|                      | Expansion of superabsorbents in Antwerp, Belgium   | 2012 |
|                      | New plant for superabsorbents in Camaçari, Brazil  | 2014 |
|                      | New plant for superabsorbents in Nanjing, China  | 2014 |
| Methanesulfonic acid | Expansion in Ludwigshafen, Germany   | 2012 |
| Chelating agents     | New plant for chelating agent (Trilon® M) for sustainable detergents and cleaners, Theodore, USA | 2015 |
| Enzymes              | Acquisition of Henkel's detergents enzymes technology, Düsseldorf, Germany                       | 2013 |
|                      | Acquisition of Verenum Corporation, San Diego, USA   | 2013 |

## Divestitures/Shutdowns (from 2011 onward)

| Product group | Description  | Year |
|---------------|--|------|
| Biopolymers   | Divestiture of the production site in Tromsø, Norway   | 2012 |
| Surfactants   | Transfer of production of surfactants and other products manufactured in Washington, New Jersey, to Geismar, Louisiana; closure of Washington site | 2015 |

## Major annual nameplate capacities of BASF<sup>1</sup>

| Product group         | Location   | Capacity (in thousand tons) |
|-----------------------|--|-----------------------------|
| Chelating agents      | Europe, North America, South America               | 120                         |
| Methanesulfonic acid  | Europe   | 30                          |
| Non-ionic surfactants | Europe, North America, Asia Pacific                | 630                         |
| Anionic surfactants   | Europe, North America, South America, Asia Pacific | 550                         |
| Superabsorbents       | Europe, North America, Asia Pacific                | 530                         |

<sup>1</sup> All capacities included at 100% also joint ventures



## Nutrition & Health

Strategic partner for the food, feed, pharmaceutical, and flavor and fragrance industries

**BASF's Nutrition & Health division develops, produces and markets a comprehensive range of ingredients and solutions for the nutrition and health industry. Our products fulfill the highest safety, regulatory and sustainability standards. Together with our customers we play an active part in enhancing the nutrition and health of consumers all over the world.**

### Human nutrition

Newtrition™ is BASF's global business philosophy for food, beverage and dietary supplement markets. As a unique partner along the nutrition value chain, we want to help our customers create innovative products that address multiple needs: tasty, healthy and convenient nutrition – for kids, teens, young adults and seniors – for modern lifestyles and regional consumer preferences. Our goal is to make a strong contribution to providing enough, high-quality and safe foods for the growing world population. We offer health ingredients such as:

- Vitamins
- Carotenoids
- Plant sterols and sterol esters
- Conjugated linoleic acid
- Omega-3 fatty acids

Our food and beverage performance ingredients include:

- Emulsifiers
- Enzymes
- Specialty compounds
- Filtration aids

### Animal nutrition

BASF is a leading global supplier of feed additives for animal nutrition. Our product portfolio for livestock and companion animals includes:

- Vitamins
- Carotenoids
- Enzymes
- Organic acids
- Mycotoxin binders
- CLA and more

High-quality feed additives, pioneering innovations and global presence close to our customers have made BASF a leader in the animal nutrition industry. Our most recent product launch was the mycotoxin binder Novasil™ Plus, which improves feed safety and animal well-being. Currently we are in the process of launching a new generation phytase.

### Pharmaceutical ingredients and services

BASF is a major enabler along the life cycle of pharmaceuticals – with high-quality products and services that meet current Good Manufacturing Practices (cGMP) requirements. We are the innovation leader for highly functional excipients such as:

- Solubilizers
- Coatings, polymers and systems
- Binders
- Disintegrants

BASF is also the market leader for active pharmaceutical ingredients (APIs) such as:

- Ibuprofen
- Caffeine
- Pseudoephedrine
- Omega-3 fatty acids

Our global leadership in highly concentrated omega-3 fatty acids resulted from the acquisitions of Equateq in 2012, and of Pronova BioPharma in 2013. Our portfolio is complemented by custom synthesis services carried out at flexible, multiproduct cGMP plants.

### Aroma ingredients

BASF is a leading global supplier of aroma ingredients for the flavor and fragrance industry such as:

- Geraniol
- Citronellol
- Linalool
- L-menthol

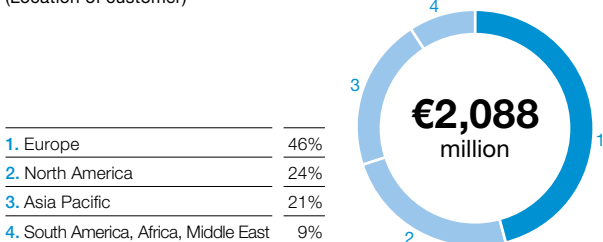
Among others, these aroma ingredients are part of our citral value chain. In 2012, we started manufacturing L-menthol in the world's largest menthol plant at BASF's site in Ludwigshafen, Germany. With a portfolio of floral, mint and citrus senses, our aroma ingredients are sold to the flavor and fragrance industry, finding their use mainly in home and personal care products and fine fragrances as well as in the food industry.

### Sustainability

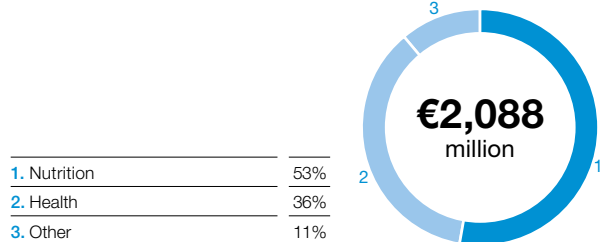
SET – applied sustainability™ is our unique sustainability offer, designed as a value-adding partnership program. It makes sustainability measurable and helps companies in the nutrition and health industry to increase the sustainability of their products and brands. SET identifies improvement potential along the entire value chain: from the first step in the production process to the final use of the consumer product. The solutions provided by

### Sales by region 2013

(Location of customer)



### Sales by first customer industry 2013



SET help our customers to identify how to use resources more efficiently, thus reducing environmental impact, and increasing output while improving social factors and affordability.

### BASF's market position

Globally among the top three leaders in all important product groups.

### Main competitors

- Human nutrition: DSM, DuPont, several Chinese companies
- Animal nutrition: DSM, DuPont, several Chinese companies
- Pharma ingredients & services: Evonik, Ashland, Lonza
- Aroma ingredients: DSM, NHU, Kuraray

### Focus of research and development

Our research and development resources are focused on product innovation derived from consumer trends and needs. Together with our partners, we continuously generate ideas and translate these into innovations. Ongoing process innovation ensures technological and cost leadership in our major product lines.

#### Key drivers of profitability

- Customer proximity
- Customer-need-driven innovation
- Superior products (reputation as quality leader)
- Cost leadership through integration into the BASF Verbund
- Value-driven asset management of citral value chain
- Efficient business setup and processes

#### Key capabilities of BASF

- Value-driven innovation supported by BASF's global R&D network
- Deep understanding of the nutrition and health market
- Translation of customer and consumer needs into ingredients and solutions
- High expertise in a complex regulatory environment
- Benchmark sustainability concepts and quality management

### Omega-3 fatty acids

In May 2012, BASF acquired UK-based Equateq Ltd and in January 2013 the Norwegian company Pronova BioPharma. By merging the technologies and products that came along with the acquisitions, the newly created Omega-3 business now offers unique technologies for the production of highly concentrated Omega-3 fatty acids for the pharmaceutical and food industries, as well as the expertise to formulate customized Omega-3 fatty acids of up to 99 percent purity.

### Acquisitions/JVs/Investments (from 2011 onward)

| Product group   | Description  | Year |
|---|--|------|
| Aroma ingredients   | New plant for L-menthol in Ludwigshafen, Germany   | 2012 |
|   | BASF and PETRONAS building integrated citral and aroma ingredients complex in Kuantan, Malaysia        | 2016 |
| Pharmaceutical ingredients and services and human nutrition | Acquisition of Equateq, a global leader in highly concentrated omega-3 fatty acids in Callanish, UK    | 2012 |
|   | Acquisition of Pronova BioPharma, a global leader in highly concentrated omega-3 fatty acids in Norway | 2013 |
| Enzymes   | Acquisition of Verenum Corporation, San Diego, USA   | 2013 |

### Divestitures/Shutdowns (from 2011 onward)

| Product group   | Description  | Year |
|-----------------|--|------|
| Human nutrition | Closure of plant for food performance ingredients in Jacareí, Brazil | 2013 |
| Omega 3         | Plans to sell low concentrated omega 3 Brattvåg site in Norway       | 2014 |

### Major production sites

| Product group                   | Location  |
|---------------------------------|---|
| Human nutrition                 | Illertissen, Germany; Ballerup, Denmark; Bousens, France; Brattvåg, Norway; Kankakee, USA; Pasadena, USA; Hutt Lagoon, Whyalla Lagoon, Cheltenham Lagoon, Australia; Kitatone, Japan; Gunsan, Korea |
| Animal nutrition                | Ludwigshafen, Germany; Shenyang, China; Gunsan, Korea   |
| Pharma ingredients and services | Evionnaz, Switzerland; Saint-Vulbas, France; Minden, Germany; Kalundborg, Denmark; Sandefjord, Norway; Callanish, UK; Bishop, USA   |
| Aroma ingredients               | Ludwigshafen, Germany   |



## Paper Chemicals

World market leader in paper chemicals

**As the leading global supplier to the paper industry, BASF's Paper Chemicals division offers a comprehensive range of chemical products for paper manufacturing and coating. This includes process and functional chemicals for the wet-end process to optimize costs, increase machine efficiency and lend specific properties to paper as well as coating chemicals to improve the printability and properties of printed paper and cardboard.**

### Process chemicals

BASF addresses the major needs of the paper industry by offering solutions to introduce new functionality, to improve sustainability, to reduce total cost of operations and to lower grammage. Our unique toolbox enables our customers to use an optimized fiber mix, reduce energy consumption and increase filler content and at the same time raise paper machine productivity. The versatile material vinylformamide (VFA), of which BASF is the only large scale manufacturer and supplier to the paper industry worldwide, is the differentiating technology of our core product range. The product portfolio is complemented by a wide range of process chemicals including polyethyleneimine, polyacrylamide, microparticle systems, fixing agents and defoamers. With XELOREX™, the revolutionary 4-in-1 solution in papermaking, we have a brand that reduces the complexity of the papermaking process in the wet end, and aims to reduce the total cost of operations. Performance characteristics are enhanced paper and board properties, increased machine efficiency, improved productivity and support of a lower-cost fiber mix.

### Functional chemicals

BASF offers a variety of functional chemicals that lend specific properties, such as brilliant color reproduction, optimal printability and improved water resistance, to finished paper and cardboard. The functional chemicals portfolio includes colorants, pigments, sizing agents and color developers. With Pergafast® 201, BASF offers a unique alternative to the use of bisphenol A in thermal papers, which is under discussion as a possible health risk.

### Coating chemicals

BASF is a leading supplier of paper coating binders and coating additives. Our global technical expertise combined with backward integration into major raw materials and innovation capability enables us to provide customer-specific solutions, recognizing the trend toward more cost-efficient binders based on the lowest cost raw materials. BASF has the flexibility to offer both styrene-acrylic and styrene-butadiene-based binder solutions.

### Kaolin

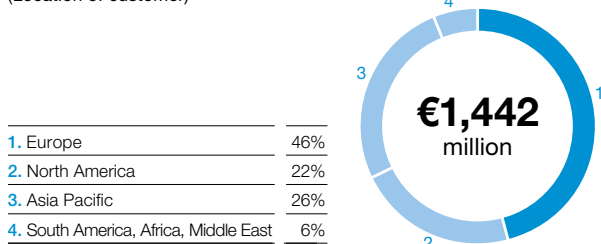
Kaolin minerals are extracted from mines and are primarily used as coating pigments in the paper industry. BASF owns several kaolin reserves in Georgia, USA. We offer an exceptionally broad line of kaolin-based pigments that give papermakers the coating and filler pigment solution they need to optimize paper properties and maximize value.

### Center for sustainable paper packaging

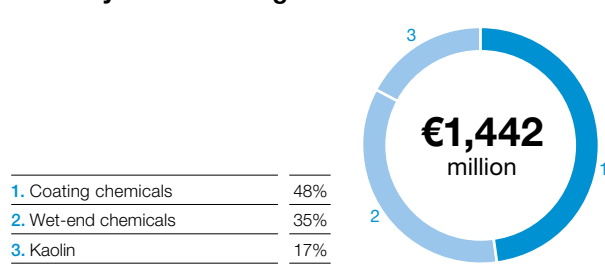
The newly established market facing unit develops and markets sustainable paper packaging solutions using the entire BASF technology portfolio and know-how (such as sustainable barriers, food safe migration barriers, and light weighting).

Today the packaging industry is moving towards sustainable packaging using renewable resources and recycling processes. Additional functionality, such as higher heat resistance, will also play an increasing role in packaging. New standards are being established with which packaging manufacturers will have to comply. This also applies to mineral oil constituents in cardboard. To develop optimal coating solutions for the manufacturing process, BASF is already cooperating with Europe's leading manufacturer of folding cartons and boxes, Van Genechten in Kempten, Germany. For the jointly-developed WLC Food Safe coating based on BASF's plastic Ultramid, both partners have won the German Packaging Prize Award 2013.

**Sales by region 2013**  
(Location of customer)



**Sales by business segment 2013**



**BASF's market position**

- Paper chemicals supplier: No. 1 globally
- Process chemicals: No. 1 globally for retention business
- Functional chemicals: Among the top 3 globally
- Coating chemicals: No. 2 globally

**Main competitors**

- Process chemicals: Ecolab/Nalco, Ashland, Kemira, Eka Chemicals
- Functional chemicals: Ashland, Archroma, Kemira
- Coating chemicals: Styron, Synthomer, LG

**Focus of research and development**

- Technology leadership in today's core portfolio
- Breakthroughs with regard to customers' cost savings and machine efficiency
- Long-term focus on sustainable solutions for paper packaging

**Key drivers of profitability**

- Leading market position in process chemicals
- Comprehensive portfolio combined with strong technical expertise and innovation power
- Solutions for reducing the total cost of operation based on VFA chemistry resulting in significant benefits for the customer

**Key capabilities of BASF**

- Backward integration into key raw materials (butadiene, acrylic monomers)
- Manufacturing footprint close to customers in all regions
- Technical expertise and breadth of portfolio

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group                          | Description                                 | Year |
|--|---|------|
| Process chemicals VFA                  | Capacity expansion in Ludwigshafen, Germany | 2011 |
| Process chemicals PVAm (Polyvinylamin) | Capacity expansion in Ludwigshafen, Germany | 2014 |
| Cationic polyacrylamides               | New plant in Nanjing, China                 | 2012 |
| Paper dispersions                      | New plant in Huizhou, China                 | 2012 |
|  | New plant in Dahej, India                   | 2014 |
|  | New plant in Freeport, Texas                | 2015 |
| Paper dyes                             | Expansion in Ankleshwar, India              | 2012 |
| Imaging chemicals (Pergafast)          | Expansion in Ankleshwar, India              | 2015 |

**Divestitures/Shutdowns (from 2011 onward)**

| Product group     | Description  | Year    |
|-------------------|--|---------|
| Whiteners         | Discontinuation of production of OBA in Grenzach, Germany                | 2011    |
|                   | Discontinuation of production of OBA in McIntosh, Alabama                | 2012    |
| Dyes              | Discontinuation of production of paper dyes in Ludwigshafen, Germany     | 2011    |
|                   | Discontinuation of production of paper dyes in Grenzach, Germany         | 2012    |
| Imaging           | Discontinuation of production in Ruikang, China                          | 2013    |
| Paper dispersions | Adjustment of capacities in European network                             | by 2016 |
| Sizing business   | Kemira acquired BASF's global alkyl ketene dimer (AKD) emulsion business | 2014    |

**Major production sites**

| Product group        | Location   |
|----------------------|--|
| Coating chemicals    | Hamina, Finland; Ludwigshafen, Germany; Pischelsdorf, Austria; SGBD (JV), China; Jiangsu, China; Huizhou, China; Merak, Indonesia; Mangalore, India; Paulinia, Brazil; Appleton, USA |
| Process chemicals    | Ludwigshafen, Germany; Appleton, USA; Jiangsu, China   |
| Functional chemicals | Ankleshwar, India; Altamira, Mexico; Jiangsu, China; Merak, Indonesia; Mangalore, India  |
| Kaolin               | McIntyre and Gordon, USA   |

**Afranil® LC: Cost-efficient functional chemical for paper producing machine**

Afranil® LC is a very cost-competitive new deaerator for the low- and mid-temperature requirements of the paper producing machine. Efficiency is increased by up to 30% compared with conventional deaerators at a favorable cost/performance ratio.



## Performance Chemicals

Adding value as an innovative partner for specific customer industries

**As an innovative partner, BASF's Performance Chemicals division offers specific solutions for specific customer industries including plastics, automotive, refineries, lubricants, oilfield, mining and water treatment as well as leather and textiles.**

### Plastic additives

BASF is the globally leading supplier and innovation partner for stabilizers and additive systems to the plastics and rubber industries. The product range includes high-performance light stabilizers, antioxidants, process stabilizers, and other specialty additives. The main fields of application are:

- Automotive molded parts
- Agricultural films
- Construction materials
- Packaging
- Electronics and consumer goods

### Fuel and lubricant solutions

BASF is one of the leading suppliers of performance chemicals for the automotive and mineral oil industries. Our portfolio includes:

- Brake fluids and engine coolants
- Fuel and refinery additives
- Low, medium and high molecular weight polyisobutene (PIB)
- Lubricant additives and additive packages
- Base stocks for lubricants and components for metalworking fluids
- Compounded lubricants

### Water, oilfield and mining solutions

BASF offers a wide range of solutions and products for the water, oilfield and mining industry.

For the water industry, we offer products used in the key processes of industrial and municipal water treatment. We are a leading supplier of products: to purify raw water used for the production of drinking water; to treat waste water stream and industrial process water; and to protect desalination plants, cooling towers and boilers.

For the oilfield industry, we offer a wide range of products to help make efficient formulations this includes products for the drilling and completion of oil wells, and chemicals for the continuous and cost-efficient production of valuable oil and gas resources. We offer standard surfactants, and polymers, and also develop next-generation products designed to support enhanced oil recovery (EOR) operations by means of chemical injection.

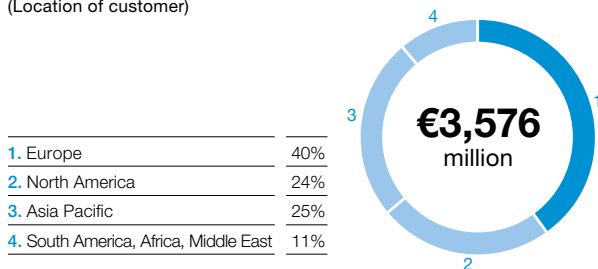
For the mining industry, we offer an extensive range of mineral processing reagents. The strengths of the global business are in solid/liquid separation and solvent extraction; additionally, we also offer reagents for flotation, dispersing, agglomerating and other processes. Our products are marketed worldwide. Furthermore, we also offer customer engineering solutions for the mining industry.

### Leather and textile chemicals

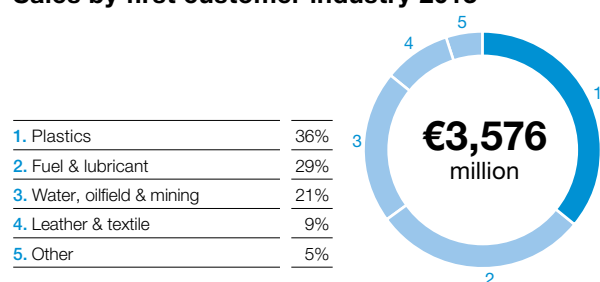
BASF supplies chemicals for all leather and essential textile processing steps. In the leather industry, our eco-efficient products and solutions help customers meet the latest ecological requirements and standards. BASF's expertise covers a broad spectrum of applications, such as leathers for shoes, automotive, furniture, garments and accessories. Our textile chemicals deliver high quality, comfort and easy care through innovative techniques, meeting the latest ecological requirements and standards. We offer textile auxiliaries for weaving, pretreatment and dyeing and comprehensive solutions for pigment printing, finishing and textile coating.

### Sales by region 2013

(Location of customer)



### Sales by first customer industry 2013





## BASF's market position

In most businesses, we are among the top three companies.

## Main competitors

- Plastic additives: Songwon, Cytec
- Fuel and lubricant solutions: Afton Chemical, Artec, Chemtura, Exxon, Oronite, Petrochem, TPC
- Water, oilfield and mining solutions: SNF, Ashland, Kemira, Cytec, Nalco
- Leather and textile chemicals: Huntsman, Stahl, SK Capital Partners

## Focus of research and development

Developing intelligent solutions in close cooperation with our customers as well as improving our cost position are key to the success of the Performance Chemicals division. Accordingly, we want to grow our business by aiming at new, fast-growing markets, where we can leverage the variety of our competencies. In addition, we aim to safeguard our margins in already established businesses.

### Key drivers of profitability

- Excellent innovation platform and application know-how
- Customer proximity and market focus
- Focus on industry segments and regions growing above GDP
- Technology leadership and cost competitiveness in production

### Key capabilities of BASF

- Strategic alliances with key customers for innovation leadership
- Highly qualified and experienced team with outstanding market knowledge
- Technological competence to provide excellent solutions to our customers

## Zetag® ULTRA flocculant range

Every year, more than 160 billion cubic meters of waste water worldwide are treated before being released into the water cycle. Plant operators can benefit from cost savings thanks to the advanced dewatering performance of our Zetag® ULTRA flocculant range. This means to operate municipal and industrial waste water treatment plants more efficiently and effectively, as less energy is required for the transportation, disposal and incineration of the sludge.

## Acquisitions/JVs/Investments (from 2011 onward)

| Product group                | Description   | Year |
|------------------------------|---|------|
| Fuel and lubricant solutions | New polyisobutene plant in Nanjing, China   | 2012 |
| Water solutions              | Acquisition of Inge waternotechnologies   | 2011 |
|                              | New plants for quaternized cationic monomers and cationic polyacrylamides in Nanjing, China | 2012 |
| Plastic additives            | New production site for customer-specific antioxidant blends in Bahrain                     | 2012 |
|                              | New plant for antioxidants in Singapore   | 2013 |

## Divestitures/Shutdowns/Reorganizations (from 2011 onward)

| Product group                        | Description   | Year      |
|--------------------------------------|---|-----------|
| Plastic additives                    | Scale down of plastics additives in the Basel area, Switzerland   | 2013-2015 |
|                                      | Divestiture of PolyAd Services to Edgewater Capital Partners L.P.   | 2014      |
| Water, oilfield and mining solutions | Closure of polyacrylamide bead production unit in Suffolk, USA  | 2012      |
|                                      | Restructuring of the water solutions business, mainly in Bradford and Grimsby, UK   | 2013-2015 |
|                                      | Divestiture of Industrial Water Management Business in France to GDF Suez Group   | 2013      |
| Leather and textiles                 | Reorganization in the leather and textile business: Greater focus on the growing Asia Pacific region and high value-adding applications. The R&D activities will be bundled for automotive industry and premium textile articles in Shanghai, China | 2014      |

## Major production sites

| Product group                        | Location  |
|--------------------------------------|---|
| Fuel and lubricant solutions         | Ludwigshafen, Germany; Kaisten, Switzerland; Antwerp, Belgium; McIntosh, USA; Puebla, Mexico; Shanghai and Nanjing, China; Thane and Mangalore, India; Singapore; Guaratingueta, Brazil |
| Leather and textiles                 | Ludwigshafen, Germany; Shanghai, China; Thane and Mangalore, India  |
| Water, oilfield and mining solutions | Bradford and Grimsby, UK; Suffolk and West Memphis, USA; Nanjing, China   |
| Plastic additives                    | Lampertheim, Germany; Kaisten, Switzerland; Pontecchio Marconi, Italy; Puebla, Mexico; McIntosh, USA; Singapore; Manama, Bahrain  |



## 2.3 Functional Materials & Solutions



Our automotive coatings combine protection and attractive appearance with eco-efficiency. Our mobile emission catalysts help car manufacturers lower carbon emissions and our battery materials are the future of tomorrow's mobility.

### page 60

BASF's **Catalysts** division develops solutions that help protect the air and efficiently produce fuels, chemicals, plastics and other products, including advanced batteries for electromobility.

### page 62

The **Construction Chemicals** division provides chemical systems and formulations for the construction industry.

### page 64

Our **Coatings** division is one of the world's largest suppliers of innovative and environmentally friendly coatings solutions for automotive and industrial applications.

### page 66

**Performance Materials** bundles BASF's innovative downstream speciality plastics business. It focuses on industries such as transportation, construction, consumer products and industrial applications.

The Functional Materials & Solutions segment consists of the Catalysts, Construction Chemicals, Coatings as well as the Performance Materials divisions. They develop unique system solutions, services and innovative products tailored for the automotive, electronics, chemical as well as construction industry. Key success factors for these businesses include a sound understanding of the customer industries and their value chains as well as multidisciplinary know-how that enables continuous innovation. The tailor-made products and services we offer are supported by industry and application expertise.

### Segment data Functional Materials & Solutions

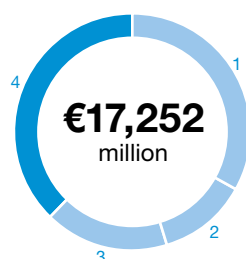
| (Million €)  | 2009  | 2010  | 2011   | 2012 <sup>1</sup> | 2013   |
|--|-------|-------|--------|-------------------|--------|
| Sales to third parties   | 7,115 | 9,703 | 11,361 | 17,049            | 17,252 |
| Percentage of total BASF sales                                       | 14.0  | 15.2  | 15.5   | 23.6              | 23.3   |
| Thereof Catalysts  | 2,961 | 5,005 | 6,380  | 5,568             | 5,708  |
| Construction Chemicals   | 1,991 | 2,121 | 2,181  | 2,315             | 2,120  |
| Coatings   | 2,163 | 2,577 | 2,800  | 2,961             | 2,927  |
| Performance Materials  |       |       |        | 6,205             | 6,497  |
| Income from operations before depreciation and amortization (EBITDA) | 511   | 861   | 921    | 1,363             | 1,498  |
| EBITDA margin (%)  | 7.2   | 8.9   | 8.1    | 8.0               | 8.7    |
| Income from operations (EBIT) before special items                   | 209   | 467   | 559    | 932               | 1,070  |
| EBIT before special items margin (%)                                 | 2.9   | 4.8   | 4.9    | 5.5               | 6.2    |
| Income from operations (EBIT)  | 107   | 457   | 427    | 806               | 1,027  |
| EBIT margin (%)  | 1.5   | 4.7   | 3.8    | 4.7               | 6.0    |

<sup>1</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly. These restated prior year figures also take into account the new segment structure as of January 1, 2013

### Segment sales 2013

(Million €)

|                           |       |
|---------------------------|-------|
| 1. Catalysts              | 5,708 |
| 2. Construction Chemicals | 2,120 |
| 3. Coatings               | 2,927 |
| 4. Performance Materials  | 6,497 |



### Functional Materials & Solutions 2013

(Million €)

EBITDA

EBIT before special items

1,498

1,070

# Catalysts

The global leader in catalysis

**BASF's Catalysts division is the global market leader in catalysis. The division develops and produces mobile emissions catalysts as well as process catalysts and technologies for a broad range of customers worldwide. It also produces advanced battery materials and provides precious metals sourcing and management services. BASF expands its leading role in catalyst technology through continuous process and product innovation.**

### Mobile emissions catalysts

BASF's emissions abatement catalysts enable cost-effective regulatory compliance, providing technologies that control emissions from gasoline and diesel-powered passenger cars, trucks, buses, motorcycles and off-road vehicles.

### Process catalysts and technologies

BASF is the leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain as well as intermediates for pharmaceuticals. The business provides oil refining technology catalysts including fluid catalytic cracking (FCC) catalysts, co-catalysts and additives. It also provides polyolefin catalysts and adsorbents, which are used for purification, moisture control and sulfur recovery.

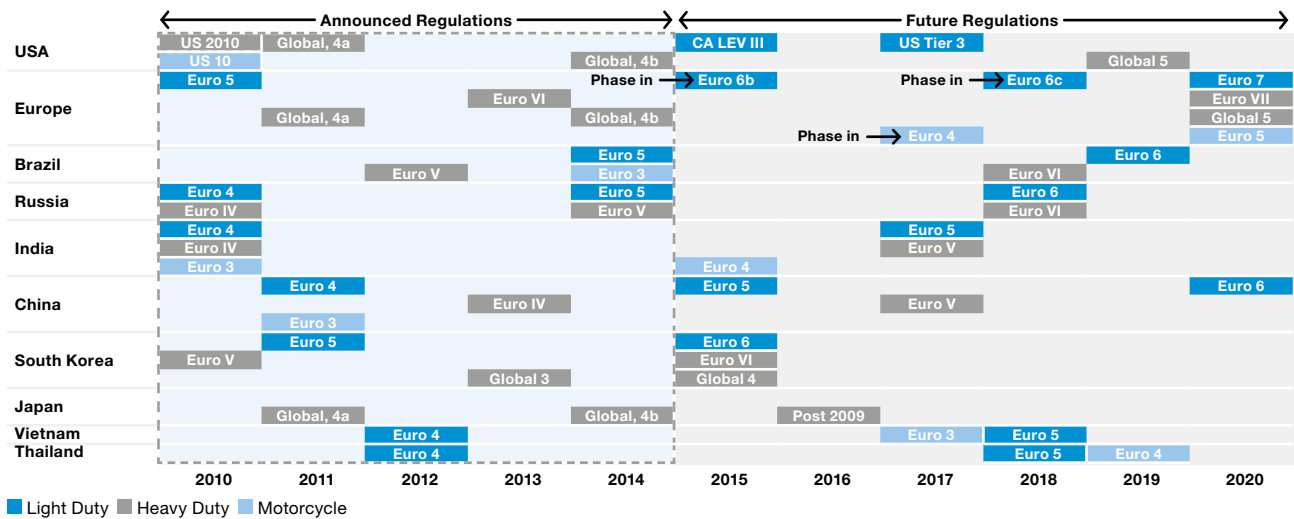
### Battery materials

Formed in 2012, the Battery Materials global business unit offers advanced cathode materials to allow higher energy density and increased efficiency by enabling more discharge/charge battery cycles. It also offers high-purity customized electrolyte formulations that are ideal for automotive battery applications. BASF is a frontrunner in developing innovative solutions for lithium-ion batteries. It conducts future-generation battery materials research, working alongside BASF's global R&D network and select third-party development partners. In addition, BASF is the global leader in nickel-metal hydride (NiMH) technology development and licensing.

### Precious and base metal services

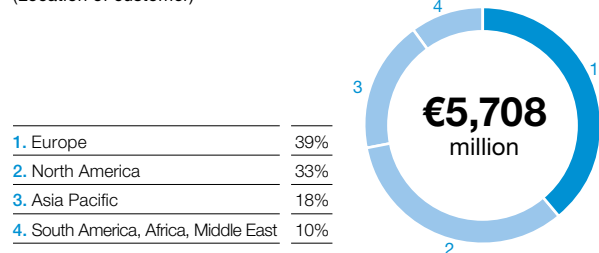
The global business unit supports BASF's Catalysts business and its customers with services related to precious and base metals sourcing and management. It purchases, sells, distributes, stores and offers transportation services. It also provides a variety of pricing and delivery arrangements to meet the logistical, financial and price-risk management requirements. In addition, the business produces precious metal salts and solutions and is a global leader in precious metals recycling and refining. In 2013, our sales to third parties amounted to €2,355 million.

## Emissions catalysts market – regulation remains primary demand driver

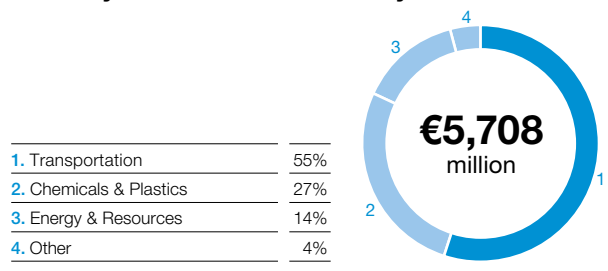


### Sales by region 2013

(Location of customer)



### Sales by first customer industry 2013<sup>1</sup>



<sup>1</sup> Excluding precious metals

### BASF's market position

- Mobile emissions catalysts – light duty vehicles:  
No. 1 globally
- Mobile emissions catalysts – heavy duty diesel vehicles:  
No. 2 globally
- Chemical catalysts: No. 1 globally
- FCC gas-oil refinery catalysts: No. 2 globally

### Main competitors

- Mobile emissions catalysts: Johnson Matthey, Umicore
- Chemical catalysts: Clariant, LyondellBasell
- FCC refinery catalysts: W. R. Grace, Albemarle

### Focus of research and development

Innovation in catalysis is crucial for all our product groups. For mobile emissions catalysts, the focus is on improved products to meet new exhaust gas standards. For process catalysts and technologies, priority is given to developing new and improved products. For battery materials, the focus is on delivering solutions that can improve energy density and power.

#### Key drivers of profitability

- Technology innovation
- Tightening of clean air regulations driving demand for new mobile emissions catalysts
- Rising raw material costs and alternative raw material sources driving process catalysts demand
- Production efficiency
- Strict working capital management

#### Key capabilities of BASF

- Technology leadership in mobile emissions and process catalysis
- Recognized precious metals expertise
- Partnerships with industry leaders
- Strong position in Asia through joint ventures
- Largest global R&D capability
- Operational excellence in catalyst production and use

### Metal Organic Framework (MOF) materials for energy storage

BASF is a global leader in Metal Organic Framework (MOF) materials research and production. MOF materials are highly crystalline structures with nanometer-sized pores that allow for the efficient storage of natural gas and other gases. BASF is focused on commercializing MOF solutions for the transportation industry (e.g. heavy duty trucks) and has developed patented MOF materials that allow for increased storage of natural gas, offering the potential to significantly increase vehicle range or to operate natural gas compression systems at lower pressures.

### Acquisitions/JVs/Investments (from 2011 onward)

| Product group              | Description  | Year      |
|----------------------------|--|-----------|
| Mobile emissions catalysts | Capacity expansion in Shanghai, China; Chennai, India; Rayong, Thailand; and Nienburg, Germany | 2011      |
|                            | Increased ownership stake in Heesung Catalysts joint venture, Korea, to 50%                    | 2011      |
|                            | Capacity expansion in Shanghai, China; Nienburg, Germany; Chennai, India; Indaiatuba, Brazil   | 2012-2013 |
|                            | New manufacturing plant in Środa Śląska, Poland  | 2013      |
|                            | New manufacturing plant in Chennai, India  | 2014      |
| Process catalysts          | Acquisition of CRI/Criterion's styrene catalysts business                                      | 2011      |
|                            | New specialty zeolites manufacturing plant in Ludwigshafen, Germany                            | 2012      |
|                            | Fine chemical catalysts production expansion, Mangalore, India                                 | 2012      |
|                            | New FCC catalysts testing and research laboratory, Heidelberg, Germany                         | 2013      |
|                            | Equity investment in Sion Power (LIS)  | 2012      |
| Battery materials          | Acquisition of Ovonic Battery Company (NiMH)   | 2012      |
|                            | Acquisition of Merck's electrolyte business for high-performance batteries                     | 2012      |
|                            | Acquisition of Novolyte Technologies' electrolytes business                                    | 2012      |
|                            | New production plant for innovative cathode materials, Elyria, USA                             | 2012      |
|                            | New R&D laboratory and application technology center, Amagasaki, Japan                         | 2013      |
| Material services          | New precious metal salts and solutions plant, Shanghai, China                                  | 2011      |
|                            | New precious metals recycling facility, Cinderford, UK   | 2011      |

### Divestitures/Shutdowns (from 2011 onward)

| Product group            | Description                   | Year |
|--------------------------|-------------------------------|------|
| New business development | Surface technologies business | 2011 |



# Construction Chemicals

Leading solution provider in construction chemicals

**BASF's Construction Chemicals division provides chemical systems and formulations for the construction industry. This industry offers major innovation potential. Leading technological development towards sustainable buildings and helping the industry to rapidly adopt sustainable construction practices, we support the profitable growth of our customers.**

### Admixture systems

BASF technologies for admixture systems provide solutions and add value to customers in the cement, concrete manufacturing and underground construction industries. Each of these industries is connected to the concrete value chain. Our primary focus is to improve and protect buildings by providing solutions based on additives for concrete and other cementitious materials as well as selected complementing technologies, for example Eco Efficiency Analysis.

### Construction systems

BASF offers construction systems to serve the construction industry with solutions to protect and repair buildings and structures. Furthermore, they help to enhance the performance of buildings and extend their service lives. Construction systems comprise: concrete repair and protection systems; performance grouts; waterproofing systems; sealants; performance flooring systems; tile and floor laying systems and wall systems.

With systems for repair and protection, we help to prolong a building's life span. Performance grouts allow for a durable, safe, cost-effective and time-efficient installation of all types of heavy machinery. Our waterproofing systems are designed to stop water entry through surfaces in order to prevent damage to occupied spaces and to equipment located below. Sealants prevent air, water and other environmental elements from entering or exiting a structure while permitting limited movement of the substrates. Our diverse range of flooring solutions meets all requirements and our broad range of tiling products ensures smooth tiling and perfect adhesion for tiles and natural stone products. Wall systems offer exterior insulation finishing systems that provide walls with insulation, a finished surface, and waterproofing in one integrated system. We will focus our wall system activities on North America and have divested our German activities.

### The Queensferry Crossing project in Scotland now holds the record for the largest continuous underwater concrete pour:

For fifteen days, an uninterrupted flow of concrete poured into the foundation caissons of the bridge towers.



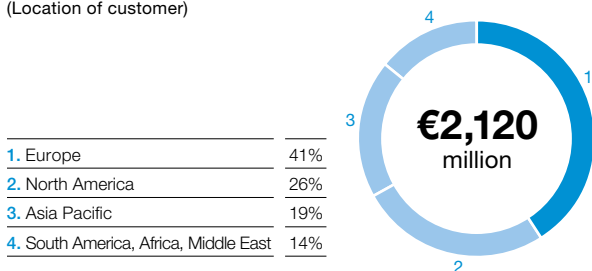
BASF solutions and expertise provided the material with the required properties. The material supports smooth underwater placing, and further required properties such as high strength, consistent workability, long retention times, and high flowability – fitting to the specified performance properties as well as to the requirements of the installation method. Here, two concrete admixtures from BASF took center stage: the polycarboxylic ether based MasterGlenium SKY 903 hyperplasticizer, especially tailored to the requirements of the project, and the MasterPozzolith 200R set retarder. The former ensured high strength, flowability and long workability without sacrificing early strength development; the latter further increased workability while also improving concrete homogeneity.

### Master Builders Solutions – our new brand connecting the construction industry

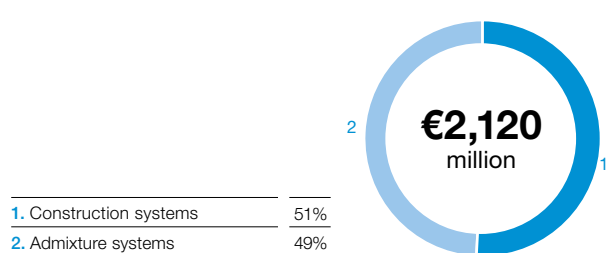
In April 2014, we finalized the introduction of our new global brand, Master Builders Solutions, underlining BASF's commitment to the construction industry. Master Builders Solutions represents a comprehensive range of solutions, which were offered under various BASF specialty brands such as Glenium, Emaco or Ucrete. Our portfolio of solutions under the Master Builders

### Sales by region 2013

(Location of customer)



### Sales by business segment 2013



Solutions brand encompasses concrete admixtures, cement additives, chemical solutions for underground construction, waterproofing systems, sealants, concrete repair and protection solutions and performance grouts as well as performance flooring systems.

**BASF's market position**

- Admixture systems: No. 1 globally
- Construction systems: No. 3 globally

**Main competitors**

- Admixture systems: W. R. Grace, Mapei, Sika
- Construction systems: Mapei, RPM, Sika

**Focus of research and development**

The goal of our R&D activities is to drive construction towards higher productivity and enhanced sustainability. In particular, we develop solutions to make construction processes faster with easy-to-apply and robust products. Durability, building service life and eco-efficiency are the main drivers for innovations across all regions. We invest significantly to further strengthen and extend our technology platforms to meet the needs of our customers now and in the future.

**Key drivers of profitability**

- Products matching a broad variety of customer needs
- Reliability of product performance
- Quality of sales and technical service
- Development of customized solutions
- Anticipation of future market trends

**Key capabilities of BASF**

- Customer orientation, solution orientation, proximity to market, experienced staff, high flexibility, established brands
- High-value solutions for our customers
- Focus on growth markets, megatrends and lead customers

**MasterSeal® 6100 FX – A new standard in cementitious waterproofing**

MasterSeal® 6100 FX is a lightweight, rapid-curing cementitious membrane to be used for internal and external application as a waterproof lining for water retaining structures, to protect concrete surfaces from carbonation and chloride attacks. Its composition makes MasterSeal® 6100 FX the right membrane for areas constantly submerged in water. Benefits derive among others from less downtime due to its fast hardening, from savings of stock, transport and waste.

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group          | Description  | Year |
|------------------------|--|------|
| Construction systems   | JV with Ji'Ning Hock Mining & Engineering Equipment Company Limited in Jining, China | 2011 |
|                        | Investment in powder production in Westonaria, South Africa                          | 2011 |
|                        | Investment in Ucrete® industrial flooring systems in Bukit Raja, Malaysia            | 2012 |
| Admixture systems      | Investment in concrete admixtures in Swinton, UK                                     | 2011 |
|                        | Investment in concrete admixtures in Podolsk, Russia                                 | 2012 |
|                        | Investment in concrete admixtures in Kazan, Russia                                   | 2013 |
| Construction chemicals | Investment in admixtures and powder production in Mangalore, India                   | 2011 |

**Divestitures/Shutdowns (from 2011 onward)**

| Product group          | Description   | Year |
|------------------------|---|------|
| Construction chemicals | Restructuring of production landscape in Spain, closure of Palau site | 2011 |
| Construction systems   | Divestiture of CONICA Sports Surfaces in Schaffhausen, Switzerland    | 2013 |
|                        | Divestiture of Wall Systems in Marktredwitz, Germany                  | 2013 |
|                        | Divestiture of MEYCO Equipment in Winterthur, Switzerland             | 2013 |

**Construction Chemicals target customers**

| Product group     | Customer industries            |
|-------------------|--------------------------------|
| Admixture systems | Ready-mix concrete             |
|                   | Precast concrete               |
|                   | Manufactured concrete products |
|                   | Cement production              |
|                   | Tunnel building                |
|                   | Mining                         |

| Product group        | Customers                          |
|----------------------|------------------------------------|
| Construction systems | Construction industry, especially: |
|                      | – Contractors and applicators      |
|                      | – Builders merchants               |
|                      | – Owners of buildings              |



# Coatings

Leading in automotive coatings globally

**BASF's Coatings division offers innovative and environmentally-friendly products for the automotive industry, including both the OEM and refinish markets, and for particular segments of the industrial coatings market. BASF also develops and markets decorative paints in South America, for interior and exterior use in residential and commercial buildings. We combine protection and aesthetics with eco-efficiency in tailor-made customer products and processes.**

## Automotive OEM (Original Equipment Manufacturer) coatings solutions

BASF provides complete automotive coatings solutions, including:

- E-coats
- Primers
- Basecoats
- Clearcoats

In addition to offering extensive technical support, BASF is a valued innovation and design partner for nearly all leading automobile manufacturers worldwide.

## Automotive refinish/commercial transport coatings solutions

For the refinishing of cars and coating of commercial vehicles, BASF offers topcoat and undercoat materials sold under the global premium brands Glasurit® and R-M® as well as the value-for-money brands baslac® and LIMCO®, which are sold to paint distributors and automotive repair shops. BASF is a leader in the fields of waterborne coatings and high-solid systems, enhanced by value-added services and tools for end-users.

## Industrial coatings solutions

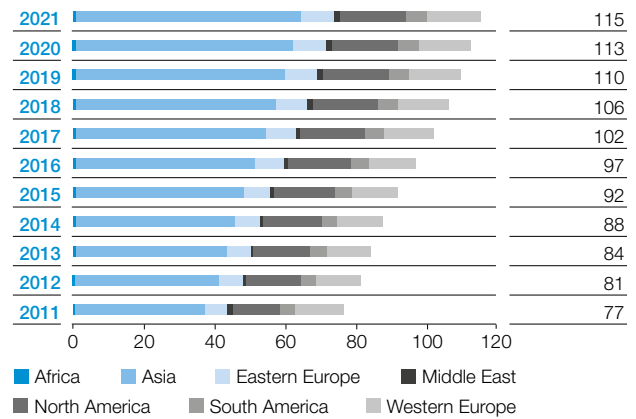
BASF offers environmentally responsible systems for coating industrial products such as Coiltec®, a universal non-chromate coil coating primer and foil coatings, applied to paper and plastic substrates. For the final finish of manufactured products, BASF's portfolio comprises e-coats, spray and dip coatings, which are used for industrial buildings, radiator components, household appliances and wind turbines.

## Decorative paints

For interior and exterior use in buildings, BASF offers decorative paints, marketed for example under the well-known premium brand Suvini®, which is one of Brazil's best-known brands. With the new dirt repellent exterior paint, Suvini has further strengthened its role as a pioneer in the area of innovative paints.

## Passenger car and light commercial vehicle production

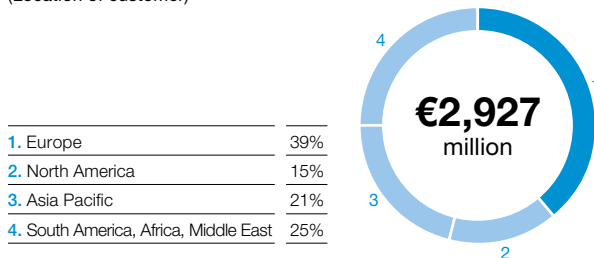
(Million units produced)



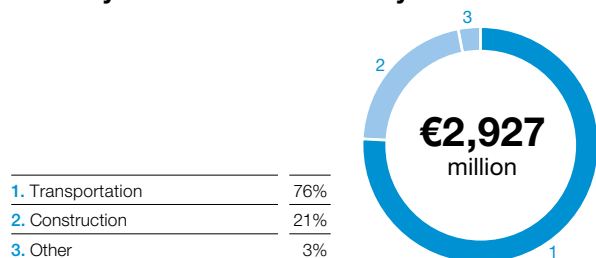
Automotive is the most important customer industry for BASF's coatings business. The number of cars and light commercial vehicles produced globally is expected to grow by more than 20 million units over the next five years. The main growth driver is Asia – in particular China – where BASF is excellently positioned to participate in tremendous growth opportunities.

### Sales by region 2013

(Location of customer)



### Sales by first customer industry 2013





**BASF's market position**

- Automotive OEM coatings: No. 2 globally
- Automotive refinish coatings: No. 3 globally
- Coil coatings: No. 3 in Europe
- Decorative paints: No. 1 in South America

**Main competitors**

- Automotive OEM coatings: PPG, Axalta, Kansai Paint
- Automotive refinish coatings: Axalta, PPG, AkzoNobel
- Industrial coatings: AkzoNobel, PPG
- Decorative paints South America: AkzoNobel, Sherwin Williams

**Focus of research and development**

Our innovation efforts for the automotive industry are focused on close partnerships with our customers in order to formulate, for instance, new coatings solutions for integrated processes, unique eco-efficient coatings, and clearcoats with extremely improved durability by using the latest crosslinking technologies. Additional research topics include improved products for new technology markets (e.g. wind energy) and environmentally responsible applications.

**Key drivers of profitability**

- Combination of protection and appearance as value indicator
- Management of raw material prices, especially for solvents and resins
- Value pricing of additional services along the supply chain
- Efficient distribution channels in end-user markets
- Customer-driven product and process innovation

**Key capabilities of BASF**

- Strong premium brands in end-user markets
- Innovative long-term cooperation with leading OEM customers
- Technical on-site support at customer locations, creating additional value and long-term relationships
- Services and tools within automotive industry to deal with color complexity
- Leveraging strong market position and application know-how from mature markets into growing markets
- Global production and market presence

**CathoGuard® 800**

Cathodic e-coat, which is the first paint layer applied to the body, forms the basis for perfect automotive surfaces. CathoGuard® 800, an innovative e-coat product line, provides important new properties and thus is up to the challenges of the future. It efficiently protects surfaces, edges and cavities from corrosion and is used successfully throughout the world. More and more large automotive manufacturers are choosing this eco-efficient generation. It is an alternative to tin-based formulations and ideally suited for a primerless coating process.

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group  | Description  | Year |
|----------------|--|------|
| Automotive OEM | Expansion of resin production, France                | 2012 |
|                | Application center, Mexico                           | 2012 |
|                | Technical support lab, India                         | 2012 |
|                | Coatings technical competence center ASEAN, Thailand | 2013 |
|                | Expansion of e-coat production, USA                  | 2013 |
|                | Expansion of coatings production, China              | 2014 |
| Refinish       | Expansion of waterborne basecoat production, Brazil  | 2014 |
|                | Competence center, Australia                         | 2013 |
|                | Competence centers, France and Italy                 | 2013 |

**Divestitures/Shutdowns (from 2011 onward)**

| Product group | Description  | Year      |
|---------------|--|-----------|
| Decorative    | Divestiture of the RELIUS coatings' decorative paints business in Europe | 2012/2013 |
|               | Divestiture of decorative paint business in Argentina                    | 2013      |

**Major production sites**

BASF coatings are produced at 18 sites worldwide. Our most important sites for each product group are listed below.

| Product group  | Site   |
|----------------|--|
| Automotive OEM | Münster, Germany; Guadalajara, Spain; Pavlovsky Posad, Russia; Shanghai, China; Totsuka, Japan; Greenville, USA; Tultitlán, Mexico |
| Refinish       | Münster, Germany; Clermont de l'Oise, France; Windsor, Canada  |
| Industrial     | Münster and Oldenburg, Germany   |
| Decorative     | São Bernardo do Campo, Brazil  |



## Performance Materials

### Performance Materials for performing solutions

The Performance Materials division brings together the entire materials know-how of BASF regarding innovative, customized plastics under one roof. Active in four major industry sectors – automotive, construction, industrial applications and consumer goods – the division has a strong portfolio of products and services combined with a deep understanding of application-oriented system solutions. Key drivers of profitability and growth are close collaboration with customers and a clear focus on solutions. Strong capabilities in R&D provide the basis for innovative products and applications.

#### Polyurethane solutions

Polyurethane solutions make life more comfortable, safer and more pleasant while helping to save energy. They contribute towards improved insulation of buildings and more attractive, lightweight design of cars. Producers of shoes, cars and household goods as well as sports equipment use the unique advantage of polyurethanes provided with the knowledge and expertise of polyurethane experts of BASF worldwide. This product group is composed of PU systems, TPU and MPU (Cellasto®) technologies.

#### Engineering plastics

These products are used in numerous applications, such as automotive engineering, the electrical and electronics sectors, household appliances and precision technology as well as in medical technology. This product group includes our Ultraform® based on polyoxymethylene (POM), Ultradur® based on polybutylene terephthalate (PBT) and Ultramid® based on polyamide (PA).

#### Styrenic foams

Styrenic foams include expandable polystyrene (EPS) Styropor® and its refinement Neopor® as well as Styrodur®C (XPS), insulating materials at the forefront of eco-efficient construction. They save energy and are cost efficient.

#### Functional foams

Functional foams include Basotect®, a flexible, open-cell foam made from melamine resin used for sound and thermal insulation in the construction and transportation industries and as a cleaning sponge in the consumer industry, as well as particle foams (Neopolen® E, Neopolen® P, E-Por®, Palusol® and structural foams (Kerdyn®)).

#### Specialty plastics

Specialty plastics include biodegradable co-polyesters, mainly used in various packaging applications and sold under ecoflex® and ecovio® brands; infusion resins for composite products (Baxxodur®), which are primarily used in wind energy applications as well as Ultrason®, a high temperature plastic, based on polyarylsulfone (PPSU, PSU, PESU).

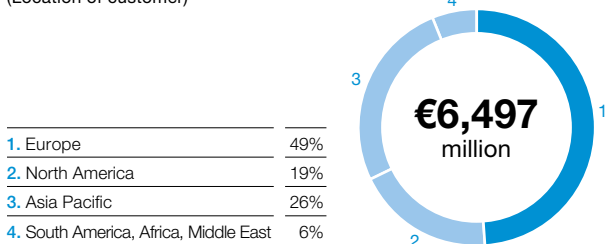
#### Industry focus

Performance Materials approaches the market with a strong industry orientation, focusing on innovation to address important needs of key market segments. We work jointly with our customers and stakeholders in the industries to introduce innovative solutions by combining our diverse portfolio of products with application, engineering, simulation and manufacturing know-how. Customer intimacy and close collaboration are the basis for our solution-selling approach, which is a key driver to profitable growth.

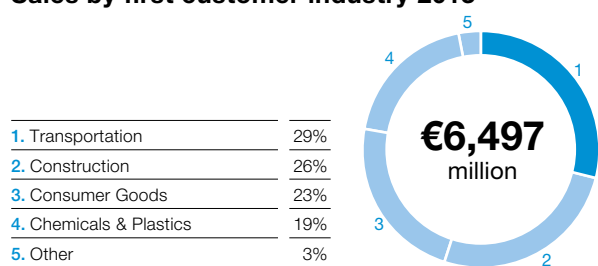
| Product/<br>Industry   | Transportation | Construction | Consumer | Industrial |
|------------------------|----------------|--------------|----------|------------|
| PU systems             | x              | x            | x        | x          |
| TPU                    | x              | x            | x        | x          |
| MPU                    | x              |              |          |            |
| Engineering plastics   | x              | x            | x        | x          |
| Polysulfones           | x              |              | x        | x          |
| Styrenic foams         |                | x            | x        |            |
| Functional foams       | x              | x            | x        |            |
| Biodegradable plastics |                |              | x        |            |
| Epoxy systems          |                | x            |          |            |

#### Sales by region 2013

(Location of customer)



#### Sales by first customer industry 2013



**BASF's market position**

- PU specialties: No. 1 globally
- Polyamide 6 & 6.6 compounds: No. 1 globally
- PBT compounds: No. 1 globally
- Expandable polystyrene: No. 3 globally

**Main competitors**

- PU specialties: Bayer MaterialScience, Dow, Huntsman, Lubrizol
- Polyamide 6 & 6.6 compounds: LANXESS, DuPont, EMS, Solvay
- Expandable polystyrene: Loyal, Wuxi Xingda, INEOS Styrenics

**Focus of research and development**

Our innovations focus is on developing new products and applications in close cooperation with customers in key target industries to improve existing solutions and find new ones. Development is driven by local market needs and is coordinated globally to ensure leveraging of key capabilities across regions. Our innovation pipeline is driven by creating solutions for unmet market needs with a focus on topics in developing markets with strong growth potential.

**Key drivers of profitability**

- Focused specialty businesses
- Close collaboration with key customers in target industries
- Large innovation and R&D capabilities
- Portfolio shift towards solutions and specialties
- Constant flow of innovative products and applications into the marketplace

**Key capabilities of BASF**

- Close customer relationships and ability to serve customers globally
- Innovation in products, applications, processes and business models
- Technical, engineering and application competence
- Operational excellence (reliability, quality consistency)

**Infinergy™ the energy boost**

A year after the successful launch of Infinergy™ the world's first expanded thermoplastic polyurethane (E-TPU®), sports equipment manufacturer adidas is increasing the use of this material in its second generation Energy Boost® 2.0 line of running shoes. The shoes are marketed by adidas as "the best running shoe you ever owned". Infinergy™ was created by combining TPU product know-how with foaming application experience to bring an "out-of-the-box" idea from the research lab to the market.

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group           | Description   | Year |
|-------------------------|---|------|
| PU systems              | System house in Dubai (JV with Kanoo)                       | 2011 |
|                         | System house in Tianjin, China                              | 2012 |
|                         | Acquisition of ITWC, Malcom, USA                            | 2012 |
|                         | Applications and technical center in St. Petersburg, Russia | 2012 |
|                         | System house in Chongqing, China                            | 2015 |
| TPU                     | New PU systems plant in Geismar, USA                        | 2015 |
|                         | Capacity expansion in Lemförde, Germany                     | 2014 |
| MPU                     | New TPU plant in Shanghai, China                            | 2014 |
|                         | New Cellasto production site in Shanghai, China             | 2011 |
| TPU, MPU and PU systems | Capacity relocation and expansion in Guaratinguetá, Brazil  | 2013 |
|                         | New polyurethanes manufacturing hub in Dahej, India         | 2014 |
| Engineering plastics    | Capacity expansion in Ansan, Korea                          | 2011 |
|                         | Capacity expansion in Shanghai, China                       | 2014 |
| PET foams               | Acquisition of B.C. Foams (extrusion technology), Italy     | 2012 |
| Styrodur®               | Capacity expansion in Ludwigshafen, Germany                 | 2011 |
| Neopor®                 | Capacity expansion in Ludwigshafen, Germany                 | 2013 |
| Ultrason®               | New plant in Yeosu, Korea                                   | 2014 |

**Divestitures/Shutdowns (from 2011 onward)**

| Product group   | Description   | Year |
|-----------------|---|------|
| Styropor® (EPS) | Shutdown of EPS plants in Thane, India and Pasir Gudang, Malaysia   | 2012 |
| PU systems      | Closure of PU system houses in Angered, Sweden and Solymár, Hungary | 2014 |

**Major annual capacities of BASF**

| Product group        | Capacity (in thousand tons) |
|----------------------|-----------------------------|
| Engineering plastics | 530                         |
| Styropor®/Neopor®    | 810                         |



## 2.4 Agricultural Solutions



Our innovative crop protection solutions help farmers to safeguard their harvest and increase their yield.

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BASF's **Crop Protection** division develops, produces and markets innovative solutions, including chemical and biological products and services that support growers to improve crop quality and yields.

As a leading industry innovator committed to investing in R&D, we offer solutions in crop protection, turf and ornamental plants, pest control and public health. Our portfolio also includes technologies for seed treatment and biological control. Solutions to manage water, nutrients and plant stress are under development as part of our global business unit Functional Crop Care. We support growers in optimizing their agricultural production and improving their business efficiency.

At BASF Plant Science, we use biotechnological methods to develop crops with clear advantages for farmers, consumers and the environment. Our R&D portfolio focuses on higher-yielding crops, herbicide tolerance and fungal resistance. BASF Plant Science is reported under 'Other'.

### Segment data Agricultural Solutions<sup>1</sup>

| (Million €)  | 2009  | 2010  | 2011  | 2012 <sup>2</sup> | 2013  |
|--|-------|-------|-------|-------------------|-------|
| Sales to third parties   | 3,646 | 4,033 | 4,165 | 4,679             | 5,227 |
| Share of total BASF sales (%)  | 7.2   | 6.3   | 5.7   | 6.5               | 7.1   |
| Income from operations before depreciation and amortization (EBITDA) | 973   | 938   | 981   | 1,182             | 1,375 |
| EBITDA margin (%)  | 26.7  | 23.3  | 23.6  | 25.3              | 26.3  |
| Income from operations (EBIT) before special items                   | 776   | 749   | 810   | 1,037             | 1,222 |
| EBIT before special items margin (%)                                 | 21.3  | 18.6  | 19.4  | 22.2              | 23.4  |
| Income from operations (EBIT)  | 769   | 749   | 808   | 1,026             | 1,208 |
| EBIT margin (%)  | 21.1  | 18.6  | 19.4  | 21.9              | 23.1  |

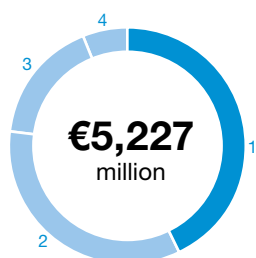
<sup>1</sup> R&D expenses, sales, earnings and all other data of BASF Plant Science are not included in the Agricultural Solutions segment; they are reported in Other

<sup>2</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly

### Segment sales by indication 2013

(Million €)

|                         |     |
|-------------------------|-----|
| 1. Fungicides           | 43% |
| 2. Herbicides           | 34% |
| 3. Insecticides         | 17% |
| 4. Functional Crop Care | 6%  |



### Agricultural Solutions 2013

(Million €)

EBITDA

1,375

EBIT before special items

1,222

## Crop Protection

Innovative solutions for modern agriculture

**BASF's Crop Protection division is significantly increasing its activities in emerging agricultural markets while maintaining a strong presence in established, high-value markets. The division aims to sustain its role as a leading innovator by continuing its extensive research and development activities. We set the target to achieve sales of about €8 billion by 2020.**

### Fungicides

Fungicides protect crops from harmful fungi that reduce vitality by damaging physiological processes. Our product portfolio includes:

#### F500® (Pyraclostrobin)

F500® is a crop protection active ingredient with a great variety of application possibilities: It acts as a highly effective fungicide as well as an accelerator of plant health effects. F500® has been approved in more than 60 countries for over 150 crops in over 100 indications. F500® is part of our global plant health umbrella brand, AgCelence®.

#### Xemium®

Xemium® is BASF's next generation fungicide for field and specialty crops. It offers broad disease control due to its excellent distribution in the plant. Xemium® will be commercially available in more than 50 countries for over 100 different crops. Peak sales potential is expected to exceed €600 million.

### Herbicides

Herbicides protect crops from weeds that cause damage by competing for nutrients, water and sunlight. Our product portfolio includes:

#### Kixor®

Kixor® is the most recent herbicide from our research and was first launched in North America in 2010 followed by South America. Kixor® can be used against broadleaf and difficult-to-control weeds, including those that have developed resistance to the herbicide glyphosate. We aim to achieve annual sales of over €300 million with this product.

#### The Clearfield® production system

The Clearfield® production system combines herbicide-resistant seeds, which are developed by using enhanced plant breeding

methods, together with custom-designed herbicide solutions. Clearfield® crops currently available include canola, sunflower, corn (maize), rice, wheat and lentils.

#### Innovative dicamba formulations

BASF and Monsanto collaborate globally on dicamba-tolerant cropping systems, aiming to expand the weed management options in soybeans, cotton, corn and canola. BASF's proprietary innovative dicamba formulations will be excellent complements to Monsanto's dicamba-tolerant seed technologies. Both companies have filed for registration of several products. Pending regulatory approvals, the first launch of a dicamba-tolerant cropping system is expected for soybeans by mid-decade, combining dicamba and Roundup® tolerance. BASF plans to market its innovative dicamba formulation under the name Engenia®.

### Insecticides

Insecticides protect crops from insects that cause damage by eating or sucking the juices of plants and transmitting dangerous viruses.

#### Fipronil

The active ingredient fipronil represents a unique product class. It plays an important role in BASF's insecticides portfolio. Furthermore, it gives BASF a strong position in attractive non-crop market segments, such as structural/urban pest control, turf and ornamental plants.

#### Alpha-cypermethrin

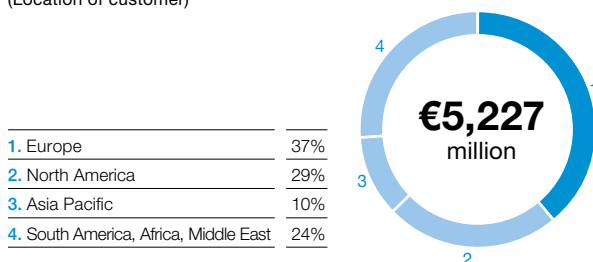
Alpha-cypermethrin controls a broad spectrum of insect pests which occur in agriculture, forestry and public health. Alpha-cypermethrin formulations have been registered in around 40 countries and approved for use in over 90 crops. The formulation Fendona is a valuable public health tool and is recommended by the WHO for use in combating malaria and other insect-borne diseases. It is the key ingredient in BASF's insecticide-treated mosquito nets.

### Functional Crop Care

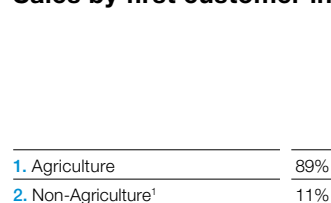
Following the acquisition of Becker Underwood in 2012, BASF established the global business unit Functional Crop Care. The unit combines R&D and marketing activities of BASF and Becker Underwood in the areas of seed treatment, biological crop protection, plant health, and water and nutrient management.

### Sales by region 2013

(Location of customer)



### Sales by first customer industry 2013



¹ Aquaculture, forestry, home and garden, industrial weed control, ornamentals, public health, turf, urban pest control

**BioStacked®**

BioStacked® is a seed treatment technology that provides excellent protection for high-value seeds and yield gains for the grower.

**BASF's market position**

- Fungicides: No. 3 globally
- Herbicides: No. 5 globally
- Insecticides: No. 4 globally

**Main competitors**

- Fungicides: Syngenta, Bayer
- Herbicides: Monsanto, Syngenta, Dow, Bayer
- Insecticides: Bayer, Syngenta, DuPont, Dow

**Focus of research and development**

Significant R&D activities focusing on fungicides, insecticides, selective herbicides, biologicals, solutions beyond crop protection.

**Powerful research and development pipeline**

We have a powerful research and development pipeline with promising candidates across all product classes. We increased the peak sales potential for products launched between 2010 and 2020 by €400 million to €2,100 million. The higher amount will be supported by successful product launches in all indications.

- Xemium (fungicide)
- Kixor (herbicide)
- Initium (fungicide)
- Dicamba HT (herbicide)

**Key drivers of profitability**

- New products from research pipeline or from acquisitions
- Alignment of resources as well as products and services to customers' needs in high-value and innovation-driven markets

**Key capabilities of BASF**

- Strong R&D
- Stringent patent management
- Focus on high-value markets and products
- Strict portfolio management

**Innovation example: AgMusa™**

The AgMusa™ planting system is an integrated solution to increase quality and yield of sugarcane for the Brazilian market. This sugarcane nursery formation system differs from conventional propagation methods by delivering disease-free sugarcane seedlings with a simplified planting system, integrated with BASF technology.

**Acquisitions/JVs/Investments (from 2011 onward)**

| Product group                   | Description  | Year |
|---------------------------------|--|------|
| Functional Crop Care            | Acquisition of Becker Underwood  | 2012 |
|                                 | Capacity expansion in Europe   | 2015 |
|                                 | New seed solutions technology and biologicals R&D center in Europe                   | 2015 |
| Boscalid                        | Capacity expansion in South America  | 2013 |
| Fipronil                        | Capacity expansion in Europe   | 2013 |
| Metazachlor                     | Capacity expansion in Europe   | 2014 |
| Xemium®                         | New capacity in Europe   | 2011 |
|                                 | Backward-integration of precursor for Xemium® in Europe                              | 2013 |
| F500®                           | Capacity expansion in Europe   | 2011 |
|                                 | Capacity expansion in Europe   | 2014 |
| Epoxiconazole                   | Capacity expansion in Europe   | 2012 |
| Dicamba                         | Capacity expansion in North America  | 2014 |
|                                 | Capacity expansion in North America  | 2016 |
|                                 | Expansion of existing plants in Europe   | 2012 |
| Formulation capacities          | Expansion of existing plants in Europe   | 2013 |
|                                 | Expansion of existing plants in Europe   | 2014 |
|                                 | Expansion of existing plants in North America  | 2014 |
|                                 | New formulation plants in Asia   | 2014 |
|                                 | New formulation plants in Latin America  | 2014 |
| Infrastructure and R&D measures | Expansion and upgrade of infrastructure and R&D at sites in North America and Europe | 2013 |

**Divestitures/Shutdowns (from 2011 onward)**

| Product group      | Description                                      | Year |
|--------------------|--|------|
| Manufacturing site | Divestiture of Koriyama, Japan, formulation site | 2011 |

**Plant biotechnology at BASF**

BASF Plant Science is one of the world's leaders in plant biotechnology for agriculture. We work together with multiple biotechnology and seed 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 USA market.

This drought-tolerant corn is based on corn lines optimized for their drought-tolerant characteristics 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.



## 2.5 Oil & Gas



The North Sea is one of our core regions for Exploration & Production.

### page 74

BASF's **Exploration & Production** business is bundled in Wintershall Group and its subsidiaries. Wintershall has been actively involved in the exploration and production of crude oil and natural gas for more than 80 years, and since 1969 as a wholly owned subsidiary of BASF.

### page 77

Our **Natural Gas Trading** business is operated with our partner Gazprom via various subsidiaries.



BASF's subsidiary Wintershall is Germany's largest producer of crude oil and natural gas. Wintershall has been active in the exploration and production of oil and gas for more than 80 years. We concentrate on selected oil and gas-rich regions in Europe, Russia, North Africa, South America and the Middle East.

In Europe, the WIGA Group (newly established Joint Venture WIGA Transport Beteiligungs-GmbH & Co. KG), operated jointly with Gazprom, is responsible for the activities in natural gas transport. As a consequence of concentrating increasingly on the upstream sector, Wintershall is divesting its own natural gas trading and storage business while retaining the transportation activities<sup>1</sup>.

<sup>1</sup> Wintershall agreed on an asset swap with Gazprom in which the previously jointly operated natural gas trading and storage business is being transferred entirely to Gazprom. Gazprom will also receive a 50% share in the activities of Wintershall Noordzee B.V. In return, Wintershall is gaining additional shareholdings in Western Siberian gas fields. The assets to be divested generated sales of ~€12 billion in 2013 and an EBITDA of ~€500 million

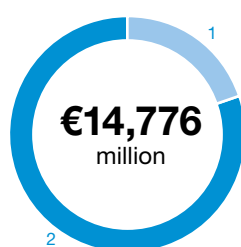
### Segment data Oil & Gas

| (Million €)  | 2009   | 2010   | 2011   | 2012 <sup>1</sup> | 2013   |
|--|--------|--------|--------|-------------------|--------|
| Sales to third parties   | 11,356 | 10,791 | 12,051 | 12,740            | 14,776 |
| Share of total BASF sales (%)  | 22.4   | 16.9   | 16.4   | 17.7              | 20.0   |
| Thereof Exploration & Production                                     | 3,847  | 3,819  | 3,182  | 2,584             | 2,929  |
| Natural Gas Trading  | 7,509  | 6,972  | 8,869  | 10,156            | 11,847 |
| Income from operations before depreciation and amortization (EBITDA) | 2,830  | 2,977  | 2,616  | 2,445             | 3,144  |
| EBITDA margin (%)  | 24.9   | 27.6   | 21.7   | 19.2              | 21.3   |
| Thereof Exploration & Production                                     | 2,188  | 2,428  | 2,042  | 1,775             | 2,133  |
| Natural Gas Trading  | 642    | 549    | 574    | 670               | 1,011  |
| Income from operations (EBIT) before special items                   | 2,289  | 2,430  | 2,111  | 1,876             | 1,969  |
| EBIT before special items margin (%)                                 | 20.2   | 22.5   | 17.5   | 14.7              | 13.3   |
| Thereof Exploration & Production                                     | 1,781  | 2,014  | 1,686  | 1,387             | 1,540  |
| Natural Gas Trading  | 508    | 416    | 425    | 489               | 429    |
| Income from operations (EBIT)  | 2,289  | 2,334  | 2,111  | 1,676             | 2,516  |
| Non-compensable foreign income taxes on oil production               | 870    | 983    | 439    | -                 | -      |
| Net income   | 712    | 923    | 1,064  | 1,201             | 1,780  |

<sup>1</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly

### Segment sales 2013

(Million €)



|                             |        |
|-----------------------------|--------|
| 1. Exploration & Production | 2,929  |
| 2. Natural Gas Trading      | 11,847 |

### Oil & Gas 2013

(Million €)

EBITDA

EBIT before special items

3,144

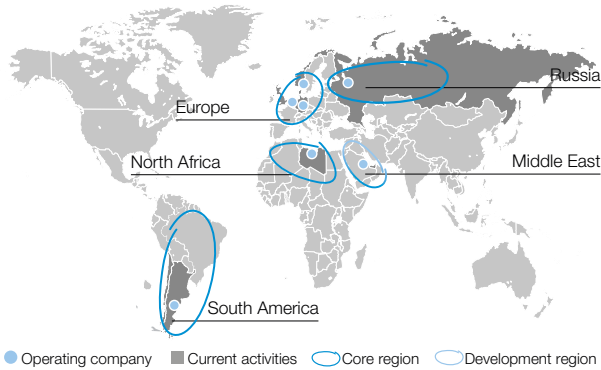
1,969

## Exploration & Production

Focused E&P activities, partnerships and selective technology development

**Exploration and production of crude oil and natural gas is performed by BASF's subsidiary Wintershall. Wintershall focuses on selected oil and gas-rich regions in Europe, Russia, North Africa, South America and the Middle East. In addition to investments in the exploration, development and production of hydrocarbons, we also secure our lasting success by broadening our technological expertise. Our focus is on increasing the yield from producing deposits as well as the development of reservoirs with difficult production conditions.**

### Activities by region



### Europe

Wintershall has been operating in Europe for over 80 years. In addition to exploration and production of oil and natural gas in Germany, we focus in particular on the North Sea. The Mittelplate oil field, the largest known oil deposit in Germany, is the cornerstone of our domestic oil production. In the Netherlands, Wintershall is one of the largest producers of natural gas, operating 23 offshore platforms. In Norway, with more than 45 licenses – and more than half of them as operator – we are one of the largest license holders. We currently hold nine licenses in the British North Sea, more than two-thirds of them operated by Wintershall. Since 2009, Wintershall has achieved some impressive successes in exploration: e.g. oil fields Maria and Skarfjell in Norway and discoveries in the Netherlands.

In 2012, Wintershall entered into a cooperation with the leading Norwegian oil and gas major Statoil. As part of the transaction, Wintershall received shares in three producing fields Brage, Gjøa and Vega and thus increased its daily production from roughly 3,000 BOE (barrels of oil equivalent) to almost 40,000 BOE per day. With Brage, Wintershall took over the operatorship of a major production platform in Norway for the first time. In return, Statoil received a cash compensation and a 15% share in the Edvard Grieg development project.

In the first quarter 2014, Wintershall optimized its portfolio and sold shares in selected non-own-operated oil and gas fields on the British Continental Shelf to the Hungarian MOL Group. Wintershall thereby concentrates on strengthening its competencies in exploration, field development and production activities on own-operated assets in the North Sea.

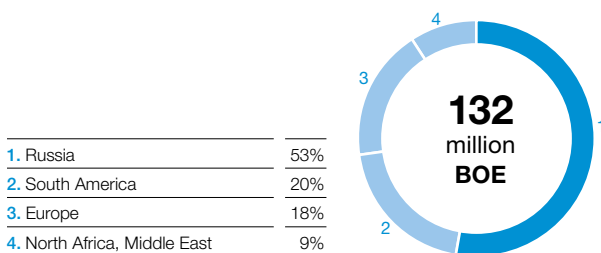
### Russia

With approximately one quarter of the world's natural gas reserves, Russia is very important for the global energy market. Wintershall has been active in this region for more than 20 years – in particular through its successful cooperation with Gazprom. Together with Gazprom we are pursuing two field development projects for natural gas and condensate in Western Siberia: Yuzhno Russkoye and Achimgaz.

**Yuzhno Russkoye:** Wintershall has a 35% share in the commercial success of the field via Severneftegazprom. The field reached plateau production of 25 billion m<sup>3</sup> of natural gas per year in 2009. All 143 production wells are in operation. The field has recoverable volumes of 600 billion m<sup>3</sup> of natural gas.

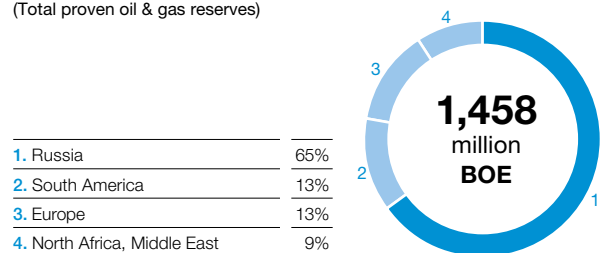
**Achimgov block IA:** Wintershall and Gazprom operate a 50-50 joint venture (Achimgaz) for block IA of the Achimgov horizon in the Urengoy field. Total recoverable volumes of block IA are 200 billion m<sup>3</sup> of natural gas and 40 million tons of condensate. Plateau production is estimated to be reached in 2018 with 8 billion m<sup>3</sup> natural gas per year. In 2013, the joint venture produced 2.2 billion m<sup>3</sup> gas and 1.1 million metric tons condensate. After the successful completion of the pilot phase in November 2011, we began the development of the entire block.

### Production 2013<sup>1</sup> by core region



### Reserves<sup>1,2</sup>

(Total proven oil & gas reserves)



<sup>1</sup> The conversion factor for natural gas is 5.6 BSCF per MMBOE (million barrels of oil equivalent)

<sup>2</sup> As of December 31, 2013

**Achimov blocks IV and V:** Wintershall and Gazprom intend to further expand gas production from the Achimov reservoirs of the Urengoy field through the development of two additional blocks. By the end of 2013, Wintershall and Gazprom have agreed on an asset swap. Wintershall is to receive 25% plus one share in the blocks IV and V in the Achimov formation of the Urengoy field in Western Siberia. Gazprom will take over 100% of the current, jointly operated natural gas trading and storage business as well as 50% of Wintershall Noordzee B.V. The EU Commission has approved the asset swap without limitation. Hydrocarbon production in blocks IV and V is expected in 2016 at the earliest. Plateau production is estimated to be more than 8 billion m<sup>3</sup> natural gas per year. The total recoverable volumes of blocks IV and V are estimated at 2.4 billion BOE (274 billion m<sup>3</sup> of natural gas, 74 million tons of condensate).

#### North Africa/Middle East

Wintershall has been engaged in E&P in Libya since 1958. We operate eight onshore oil fields in the Libyan desert. Gazprom participates with a 49% stake in Wintershall AG, which is holding these licenses. We also have a minority interest in the Al Jurf offshore field in the Mediterranean Sea off the Libyan coast.

In recent years, Wintershall expanded its operations on the Arabian Peninsula. In 2013, Wintershall discovered gas in the block 4 North (Khuff formation) offshore Qatar with estimated resources of 70 billion m<sup>3</sup> of gas (400 million BOE). The discovery is located in direct proximity to the North Field, the largest gas field in the world.

In June 2012, Wintershall signed a technical evaluation agreement with OMV and the Abu Dhabi National Oil Company to appraise the sour gas and condensate field Shuwaihat in the Western region of Abu Dhabi.

At the beginning of 2014, Wintershall and Mubadala Petroleum agreed to cooperate in the MENA region (Middle East and North Africa).

In 2014, Wintershall and BP signed a declaration of intent to cooperate in North Africa on ongoing oil and gas projects and the identification of new opportunities in the North Africa region.

#### Key initiatives for further profitable growth in Exploration & Production

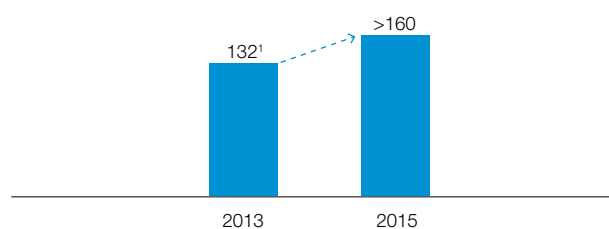
- Further expand gas and condensate production in Siberia
- Further strengthen our position in Norway
- Intensify our activities in the Middle East
- Realize the resource potential in Argentina

→ **Increase production to more than 160 million BOE per year by 2015**

#### South America

Wintershall has been active in this core region since the late 1970s. In Argentina, the largest gas-producing country in South and Central America, we are engaged in 15 oil and gas fields and are one of the country's largest producers of natural gas. Off the coast of Tierra del Fuego, Wintershall produces natural gas and liquids from the Carina and Aries natural gas fields. In 2012, we were awarded as operator for the exploration licenses in the province of Mendoza for blocks CN-V and Ranquil Norte. Argentina is one of the countries with the best prospects for shale gas and shale oil outside North America with great potential in the Vaca Muerta horizon in the Neuquén Basin. At the beginning of 2014, Wintershall and Gas y Petróleo del Neuquén (GyP) signed a binding joint venture agreement concerning the exploration and possible further development of the Aguada Federal block. Promising shale oil and gas in the Vaca Muerta horizon is expected to be found in the 97 square kilometer block in the Eastern part of the Neuquén Province. Wintershall has taken on a 50 percent share of the Aguada Federal block from GyP and will assume operatorship.

#### Production target 2015 (Million BOE)



<sup>1</sup> The conversion factor for natural gas is 5.6 BSCF per MMBOE (million barrels of oil equivalent)

## Exploration & Production

Focused E&P activities, partnerships and selective technology development

### Gas and condensate production in Western Siberia:

Wintershall has the technical expertise in conducting wells at a depth of 4,000 meters and in complex rock formations.



### Key drivers of profitability

- Focus on operations in core and development regions
- Strategic partnerships and cooperations
- Active portfolio management (e.g. acquisitions and farm-ins)
- Operational excellence via takeover of operatorship
- Exploration success
- Selective technology development and deployments
- Lean organization

### Key capabilities of BASF

- Technology for developing complex oil and gas reservoirs (e.g. extended reach drilling, enhanced oil recovery)
- Partnership with Gazprom: direct involvement in the production of natural gas in Western Siberia
- Many years of experience as operator
- Research and development competence at Oil Field Chemicals with tailor-made applications
- Financial strength

### Schizophyllan – Biopolymer for enhanced oil recovery

Wintershall, together with BASF, is developing a special biopolymer, called Schizophyllan, which could help to increase oil recovery in mature fields by up to 10 percent. This proprietary biopolymer is a result of a joint cooperation between our white biotechnology research and the oil and gas experts along with the biotechnological expertise from the Nutrition & Health division. The first field tests started in December 2012 and are showing promising results.

### Acquisitions/JVs/Investments

(from 2011 onward)

| Description                                   |   | Year      |
|---|---|-----------|
| Oil field development <sup>1</sup>            | Knarr, Norway   | 2014      |
|   | Edvard Grieg (formerly Luno), Norway                                | 2015      |
|   | Maria, Norway   | 2018      |
| Gas field development <sup>1</sup>            | Wingate, UK   | 2011/2014 |
|   | K18 Golf tight gas development, the Netherlands                     | 2012      |
|   | Yuzhno Russkoye, Russia   | 2007-2012 |
|   | Vega Pleyade, Argentina   | 2016      |
|   | Block 4N, Qatar   | 2018      |
| Gas/condensate field development <sup>1</sup> | Achimov formation (Achimgaz) in Urengoy field, Russia               | 2008-2018 |
|   | Achimov formation block IV/V  | 2016      |
| Exploration license awards                    | Norway, eight new exploration licenses                              | 2014      |
| R&D project                                   | Pilot project "Enhanced oil recovery", Bockstedt, Germany           | 2012      |
| Asset swaps, transactions                     | Transaction with Statoil <sup>2</sup>                               | 2012      |
|   | Asset swap with Gazprom <sup>2</sup>                                | 2013      |
|   | Farm-in agreement "Aquadra Federal" with Gas y Petroleo del Neuquén | 2013      |

<sup>1</sup> Production start; in case of a gradual field development: production ramp-up time

<sup>2</sup> Signing date

### Divestitures/Shutdowns (from 2011 onward)

| Description                       |  | Year |
|-----------------------------------|--|------|
| Transaction with MOL <sup>2</sup> | Divestiture of selected non-operated assets on the UK Continental Shelf to MOL | 2013 |



# Natural Gas Trading

## Natural gas supply for Europe

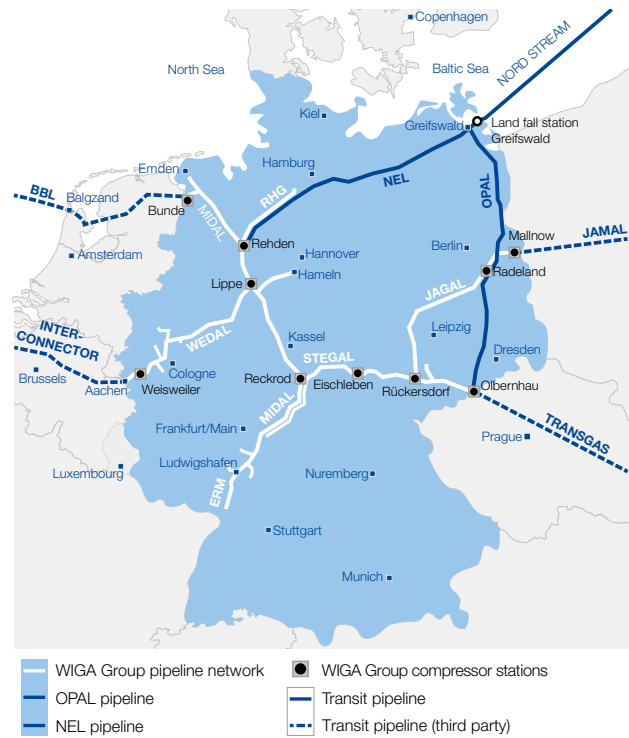
In Europe, the WIGA Group, operated jointly with Gazprom, is responsible for the activities in natural gas transport. The activities in this business sector conducted together with Gazprom predominantly belong to the WIGA Transport Beteiligungs-GmbH & Co. KG. In 2013, Wintershall agreed on an asset swap with Gazprom in which the previously jointly operated natural gas trading and storage business will be transferred entirely to Gazprom.

Our Germany-wide gas pipeline network, with a length of approximately 2,400 kilometers, is operated by GASCADE Gastransport GmbH.

The Nord Stream pipeline from Russia through the Baltic Sea to the German coast and its associated onshore projects for onward transport to the European transportation network – Baltic Sea connection pipeline (Ostsee-Pipeline-Anbindungsleitung – OPAL and North European Gas Pipeline – NEL) significantly strengthens Europe’s natural gas infrastructure. In November 2011, the first of the two Nord Stream offshore pipelines started operations together with the onshore pipeline OPAL. The onshore pipeline NEL started operations in November 2012, together with the second line of the Nord Stream pipeline.

BASF is also a shareholder of the South Stream Transport B.V., which will develop, construct and operate the offshore section of the South Stream pipeline through the Black Sea. The gradual expansion to a total annual capacity of 63 billion m<sup>3</sup> of natural gas is expected to begin at the end of 2015.

### Our pipeline network in Germany



**Key drivers of profitability**

- Gas transport business generates stable earnings
- Non-regulated pipelines: ship-or-pay contracts; earnings independent of demand fluctuations
- Regulated pipelines: fixed tariffs

**Key capabilities of BASF**

- Operation of transportation networks
- Partnership with Gazprom, largest gas reserve holder worldwide

### Acquisitions/JVs/Investments (from 2007 onward)

| Description                                       | Start | End <sup>1</sup> |
|---|-------|------------------|
| OPAL (Ostsee-Pipeline-Anbindungsleitung) pipeline | 2007  | 2011             |
| Nord Stream I-II offshore pipeline                | 2007  | 2011/2012        |
| NEL (North European Gas Pipeline)                 | 2009  | 2012/2013        |
| South Stream offshore pipeline (first string)     | 2012  | ~2015            |

<sup>1</sup> Start of operation

### Divestitures/Shutdowns (from 2011 onward)

| Description  | Year |
|--|------|
| Sale of 19% share of NEL to Fluxys   | 2011 |
| Sale of shares in gas trading and storage business to Gazprom <sup>2</sup> | 2013 |
| Sale of 15.79% share of Verbundnetz Gas AG to EWE AG <sup>2</sup>          | 2014 |

<sup>2</sup> Signing date

### Major pipeline projects

#### Nord Stream

Twin pipeline through the Baltic Sea from Vyborg, Russia to Greifswald, Germany

- BASF share: 15.5%
- Total capacity: 55 billion m<sup>3</sup> p.a.
- Total investment offshore: €7.4 billion
- First pipeline operative November 2011; project completed October 2012

#### South Stream

Four offshore pipeline strings through the Black Sea from Russia to Bulgaria

- BASF share: 15%
- Total planned capacity: 63 billion m<sup>3</sup> p.a.
- Investment decision taken in November 2012
- First pipeline operative in 2015 at the earliest

#### OPAL

Pipeline from the landfall point of the Nord Stream in Greifswald to the end point of the OPAL near Brandov (CZ) on the German-Czech border

- OGT<sup>1</sup> share: 80%
- Total capacity: 36 billion m<sup>3</sup> p.a.
- Start-up 2011, together with the first offshore string of Nord Stream

#### NEL

Pipeline from landing point of Nord Stream towards Rehden in Lower Saxony

- NGT<sup>2</sup> share: 51%
- Total capacity 20 billion m<sup>3</sup> p.a.
- Start-up 2012, together with the second offshore string of Nord Stream

<sup>1</sup> OGT: OPAL Gastransport GmbH, operator of the OPAL pipeline

<sup>2</sup> NGT: NEL Gastransport GmbH, operator of the NEL pipeline

## 2.6 Other

**Activities not assigned to a particular division are reported in Other. These include the sale of raw materials, engineering and other services, rental income and leases.**

On January 1, 2011, we carved out our styrenics business and from then onward the carved-out activities were included in Styrenics as reported under Other. The activities that were not affected by the carve-out are still reported under Other, but not as part of Styrenics. On October 1, 2011, BASF transferred its carved-out styrenics business into the joint venture Styrolution. BASF's share in this joint venture is reported at equity in the Consolidated Financial Statements. With the introduction of IFRS 10 and 11, BASF restated its figures for 2012. The restated figures for 2012 include the equity result of Styrolution as part of the income from operations. In June 2014, INEOS and BASF announced that INEOS will acquire BASF's 50% share in Styrolution. The purchase price to be paid by INEOS amounts to €1.1 billion. The transaction is subject to approval by the appropriate antitrust authorities.

Beginning of 2012, BASF completed the sale of its fertilizer activities, which were reported under Other. BASF sold its fertilizer activities in Antwerp, Belgium, to EuroChem end of

the first quarter 2012. The total purchase price amounted to around €830 million.

In addition, BASF divested its 50% share in the fertilizer producer PEC-Rhin in Ottmarsheim, France, to its joint venture partner, GPN. The transactions led to pre-tax disposal gains totaling €645 million in the first quarter of 2012.

Costs of corporate headquarters consist of the expenses for steering the BASF Group and are not allocated to the segments but reported under Other.

With crossdivisional corporate research, BASF is developing growth fields and ensuring its long-term competence with regard to technology and methods. This includes plant biotechnology research. Corporate research costs are not allocated to the segments, but are reported under Other.

Earnings from currency conversion that are not allocated to the segments are also reported under Other, as are earnings from the hedging of raw material prices and foreign currency exchange risks. Furthermore, revenues and expenses from the long-term incentive (LTI) program are reported here.

### Financial data

| (Million €)  | 2009 <sup>1</sup> | 2010  | 2011 <sup>2</sup> | 2012 <sup>3</sup> | 2013  |
|--|-------------------|-------|-------------------|-------------------|-------|
| Sales to third parties   | 4,577             | 5,851 | 6,275             | 4,061             | 4,190 |
| Thereof Styrenics  | 2,502             | 2,848 | 2,414             | –                 | –     |
| Income from operations before depreciation and amortization (EBITDA) | (417)             | (528) | 297               | (92)              | (533) |
| Income from operations (EBIT) before special items                   | (717)             | (648) | (404)             | (790)             | (618) |
| Income from operations (EBIT)  | (627)             | (707) | 178               | (215)             | (664) |
| Costs of corporate headquarters                                      | (209)             | (226) | (246)             | (255)             | (237) |
| Corporate research costs   | (319)             | (323) | (348)             | (391)             | (386) |
| Foreign currency results, hedging and other measurement effects      | (512)             | (460) | (199)             | (454)             | (190) |

<sup>1</sup> As of January 1, 2009, the styrene copolymers business in the Performance Polymers division was transferred to Styrenics

<sup>2</sup> As of October 1, 2011, BASF transferred its carved-out styrenics business to the joint venture Styrolution. BASF's share in the joint venture is reported at equity in the Consolidated Financial Statements

<sup>3</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly

### Composition of assets

| (Million €)   | 2009   | 2010   | 2011  | 2012 <sup>1</sup> | 2013  |
|---|--------|--------|-------|-------------------|-------|
| Assets of businesses included in Other  | 2,647  | 2,690  | 2,272 | 3,152             | 3,351 |
| Financial assets  | 2,960  | 3,281  | 2,700 | 613               | 630   |
| Deferred tax assets   | 1,042  | 1,112  | 941   | 1,473             | 992   |
| Cash and cash equivalents/marketable securities   | 1,850  | 1,509  | 2,067 | 1,661             | 1,832 |
| Defined benefit assets  | 549    | 260    | 128   | 41                | 47    |
| Miscellaneous receivables/prepaid expenses/assets of the disposal group not allocated to operations | 1,513  | 1,915  | 1,863 | 1,845             | 2,416 |
| Assets of Other   | 10,561 | 10,767 | 9,971 | 8,785             | 9,268 |

<sup>1</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly

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# 3

### 3.1 BASF on the capital market

#### Dividend increase, strong credit ratings

The stock markets were characterized by economic and political uncertainty in 2013. Investors were unsettled by the continuing debt crisis in the eurozone, the budget and debt debates in the United States and speculation as to the potential end of the USA Federal Reserve's expansive fiscal policy. We stand by our ambitious dividend policy. The Annual Shareholders' Meeting resolved to pay a dividend of €2.70 per share. This represents an increase of 3.8% compared with the previous year. BASF has solid financing and good credit ratings.

#### Broad base of international shareholders

With more than 400,000 shareholders, BASF is one of the largest publicly owned companies in Germany with a high free float. According to an analysis of the shareholder structure carried out in December 2013, our shareholder distribution is as follows:

- Institutional investors: 61%
- Retail/private investors: 24%
- Unidentified 15%

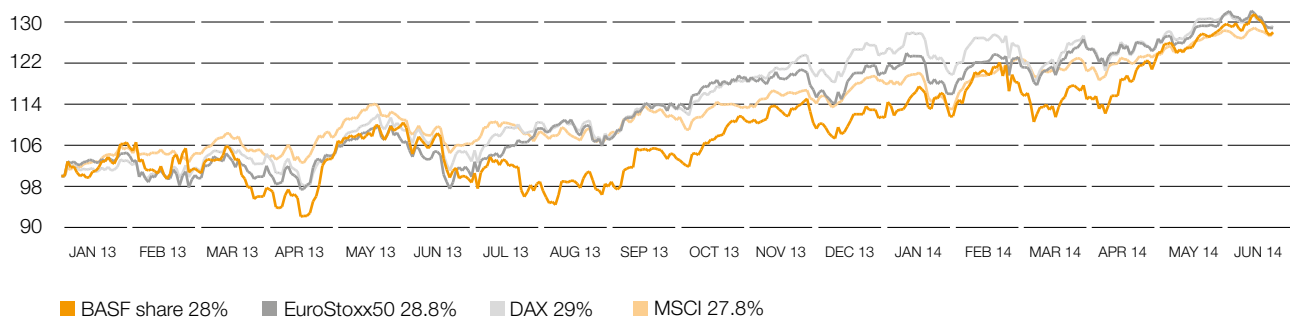
#### BASF in key sustainability indices

The BASF share has been included in the Dow Jones Sustainability World Index (DJSI World) for the thirteenth year in succession. The analysts particularly recognized our commitment in the areas of risk and crisis management, human capital development, and plant biotechnology. As one of the most well-known sustainability indexes, the DJSI World represents the top 10% of the 2,500 largest companies in the Dow Jones Global Index based on economic, environmental and social criteria.

According to the non-profit organization 'Carbon Disclosure Project' (CDP), BASF is among the 10 leading companies in the world in reporting on climate protection. The CDP represents 722 institutional investors, with around \$87 trillion in assets under management. We were once again included in the CDP Global 500 Climate Disclosure Leadership Index (CDLI) in 2013.

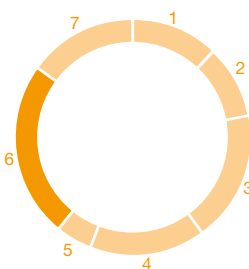
#### Change in value of an investment in BASF shares from January 2013 until June 2014

(With dividends reinvested, indexed)



#### Shareholder structure by region 2013

|                             |     |
|-----------------------------|-----|
| 1. Germany                  | 12% |
| 2. UK and Ireland           | 10% |
| 3. Rest of Europe           | 18% |
| 4. USA and Canada           | 16% |
| 5. Rest of world            | 5%  |
| 6. Retail/private investors | 24% |
| 7. Unidentified             | 15% |



#### BASF share: change in value

Performance of BASF shares with dividends reinvested

January 2013 until June 2014

2003-2013

28.0%

17.7%

per year



## Share price performance

After a positive start to the year, stock market sentiment repeatedly turned negative in the first half of 2013. Contributing to this was regional political tension, along with speculation on the possible end of the United States' expansive fiscal policy. The second half of the year was initially unsteady, as well as the US budget conflict and the governmental crisis in Italy put a strain on stock market development. Yet the mood improved over the course of October, and several important indexes – such as the Dow Jones and DAX 30 – reached new record highs. The upward trend was boosted by indications of the USA Federal Reserve's continuing loose fiscal policy as well as by the European Central Bank's unexpected reduction of interest rates.

The BASF share reached an all-time high of €87.36 on June 20, 2014. Assuming that dividends were reinvested, BASF shares gained 28% in value from January 2013 till June 2014. This nearly matched the very good performance of the German and European stock markets, whose benchmark indexes DAX 30 and DJ EURO STOXX 50 respectively gained 29% and 28.8% over the same period. The global industry index MSCI World Chemicals rose by 27.8%.

Over a five and 10-year period, the long-term performance of BASF shares still clearly surpasses these indexes. The assets of an investor who invested €1,000 in BASF shares at the end of 2003

and reinvested the dividends in additional BASF shares would have increased to €5,090 by the end of 2013. This average annual return of 17.7% places BASF shares above the returns for the DAX 30 (9.2%), EURO STOXX 50 (4.3%) and MSCI World Chemicals (10.3%) indexes.

## Dividend

For 2013, BASF paid a dividend of €2.70 per share, up 3.8% versus the previous year. We stand by our ambitious dividend policy and paid out around €2.5 billion to our shareholders (based on the number of qualifying shares on December 31, 2013). Based on the year-end share price for 2013, BASF shares offer a high dividend yield of 3.5%. BASF belongs to the DivDAX share index, which contains the 15 companies with the highest dividend yield in the DAX 30.

### Dividend policy

We aim to increase our dividend in each year, or at least maintain it at the level of the previous year.

## Analyst consensus

Around 30 financial analysts regularly publish reports on BASF. Since 2009, we have been publishing a dynamic analyst consensus on our website that is updated regularly. You can find more information on the internet at [basf.com/share](http://basf.com/share)

## Shareholder return

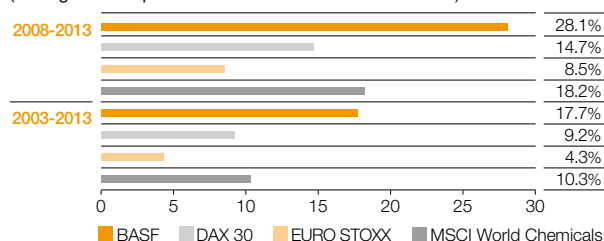
| (Million €)                                    | 2004         | 2005         | 2006         | 2007         | 2008         | 2009         | 2010         | 2011         | 2012         | 2013         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Share buybacks                                 | 726          | 1,435        | 938          | 1,899        | 1,618        | –            | –            | –            | –            | –            |
| Dividends                                      | 904          | 1,015        | 1,484        | 1,831        | 1,791        | 1,561        | 2,021        | 2,296        | 2,388        | 2,480        |
| <b>Total</b>                                   | <b>1,630</b> | <b>2,450</b> | <b>2,422</b> | <b>3,730</b> | <b>3,409</b> | <b>1,561</b> | <b>2,021</b> | <b>2,296</b> | <b>2,388</b> | <b>2,480</b> |
| Dividend per share (€) <sup>1</sup>            | 0.85         | 1.00         | 1.50         | 1.95         | 1.95         | 1.70         | 2.20         | 2.50         | 2.60         | 2.70         |
| Share price at year-end (€/share) <sup>1</sup> | 26.50        | 32.36        | 36.93        | 50.71        | 27.73        | 43.46        | 59.70        | 53.89        | 71.15        | 77.49        |
| Dividend yield (%)                             | 3.2          | 3.1          | 4.1          | 3.9          | 7.0          | 3.9          | 3.7          | 4.6          | 3.7          | 3.5          |
| Payout ratio (%)                               | 45           | 34           | 46           | 45           | 62           | 111          | 44           | 37           | 50           | 51           |
| Price/earnings ratio (P/E ratio)               | 14.5         | 11.3         | 11.6         | 12.2         | 8.9          | 28.2         | 12.0         | 8.0          | 13.6         | 14.7         |
| Free cash flow yield (%) <sup>2</sup>          | 9.0          | 9.4          | 9.6          | 6.7          | 9.8          | 8.0          | 7.1          | 7.5          | 4.0          | 4.5          |

<sup>1</sup> Adjusted for 2-1 stock split in 2008

<sup>2</sup> Free cash flow per share at year-end divided by share price at year-end

## Long-term performance of BASF shares compared with indexes

(average annual performance with dividends reinvested)



## Attractive dividend

### Dividend per share

€2.70

### Dividend yield

Based on share price at year-end

3.5%

## 3.2 Ten-year summary

### Ten-year summary

| (Million €)  | 2004 <sup>1</sup> | 2005               | 2006           | 2007           | 2008           | 2009           | 2010           | 2011           | 2012 <sup>6</sup> | 2013           |
|--|-------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|----------------|
| <b>Sales and earnings</b>  |                   |                    |                |                |                |                |                |                |                   |                |
| Sales  | 37,537            | 42,745             | 52,610         | 57,951         | 62,304         | 50,693         | 63,873         | 73,497         | 72,129            | 73,973         |
| Income from operations before depreciation and amortization (EBITDA)                 | 7,685             | 8,233              | 9,723          | 10,225         | 9,562          | 7,388          | 11,131         | 11,993         | 10,009            | 10,427         |
| EBITDA margin (%)  | 20.5              | 19.3               | 18.5           | 17.6           | 15.3           | 14.6           | 17.4           | 16.3           | 13.9              | 14.1           |
| Income from operations (EBIT) before special items                                   | 5,230             | 6,138              | 7,257          | 7,614          | 6,856          | 4,852          | 8,138          | 8,447          | 6,647             | 7,190          |
| EBIT before special items margin (%)   | 13.9              | 14.4               | 13.8           | 13.1           | 11.0           | 9.6            | 12.7           | 11.5           | 9.2               | 9.7            |
| Income from operations (EBIT)  | 5,193             | 5,830              | 6,750          | 7,316          | 6,463          | 3,677          | 7,761          | 8,586          | 6,742             | 7,273          |
| EBIT margin (%)  | 13.8              | 13.6               | 12.8           | 12.6           | 10.4           | 7.3            | 12.2           | 11.7           | 9.3               | 9.8            |
| Income before taxes  | 4,347             | 5,926              | 6,527          | 6,935          | 5,976          | 3,079          | 7,373          | 8,970          | 5,977             | 6,713          |
| Income before minority interests   | 2,133             | 3,168              | 3,466          | 4,325          | 3,305          | 1,655          | 5,074          | 6,603          | 5,067             | 5,173          |
| Net income   | 2,004             | 3,007              | 3,215          | 4,065          | 2,912          | 1,410          | 4,557          | 6,188          | 4,819             | 4,842          |
| <b>Capital expenditures, depreciation, amortization</b>                              |                   |                    |                |                |                |                |                |                |                   |                |
| Additions to property, plant and equipment and intangible assets                     | 2,163             | 2,523              | 10,039         | 4,425          | 3,634          | 5,972          | 5,304          | 3,646          | 5,263             | 7,513          |
| Thereof property, plant and equipment  | 2,022             | 2,188              | 4,068          | 2,564          | 2,809          | 4,126          | 3,294          | 3,199          | 4,084             | 6,220          |
| Depreciation and amortization of property, plant and equipment and intangible assets | 2,492             | 2,403              | 2,973          | 2,909          | 3,099          | 3,711          | 3,370          | 3,407          | 3,267             | 3,154          |
| Thereof property, plant and equipment  | 2,053             | 2,035              | 2,482          | 2,294          | 2,481          | 2,614          | 2,667          | 2,618          | 2,594             | 2,519          |
| <b>Number of employees</b>   |                   |                    |                |                |                |                |                |                |                   |                |
| At year-end  | 81,955            | 80,945             | 95,247         | 95,175         | 96,924         | 104,779        | 109,140        | 111,141        | 110,782           | 112,206        |
| Annual average   | 85,022            | 80,992             | 88,160         | 94,893         | 95,885         | 103,612        | 104,043        | 110,403        | 109,969           | 111,844        |
| <b>Personnel expenses</b>  | 5,615             | 5,574              | 6,210          | 6,648          | 6,364          | 7,107          | 8,228          | 8,576          | 8,963             | 9,285          |
| <b>Key data</b>  |                   |                    |                |                |                |                |                |                |                   |                |
| Earnings per share (€) <sup>2</sup>  | 1.83              | 2.87               | 3.19           | 4.16           | 3.13           | 1.54           | 4.96           | 6.74           | 5.25              | 5.27           |
| Cash provided by operating activities  | 4,634             | 5,250 <sup>3</sup> | 5,940          | 5,807          | 5,023          | 5,693          | 6,460          | 7,105          | 6,602             | 7,870          |
| Payments related to intangible assets and property, plant and equipment              | 2,057             | 1,948              | 2,411          | 2,562          | 2,521          | 2,507          | 2,548          | 3,410          | 4,015             | 4,660          |
| Free cash flow <sup>4</sup>  | 2,577             | 3,302 <sup>3</sup> | 3,529          | 3,245          | 2,502          | 3,186          | 3,912          | 3,695          | 2,587             | 3,210          |
| Return on assets (%)   | 13.2              | 17.7               | 17.5           | 16.4           | 13.5           | 7.5            | 14.7           | 16.1           | 11.0              | 11.6           |
| Return on equity after tax (%)   | 12.9              | 18.6               | 19.2           | 22.4           | 17.0           | 8.9            | 24.6           | 27.5           | 19.9              | 19.4           |
| Free cash flow/sales (%)   | 6.9               | 7.7                | 6.7            | 5.6            | 4.0            | 6.3            | 6.1            | 5.0            | 3.6               | 4.3            |
| Reported tax rate (%)  | 50.9              | 46.6               | 46.9           | 37.6           | 44.7           | 46.2           | 31.2           | 26.4           | 15.2              | 22.9           |
| Underlying tax rate <sup>5</sup> (%)   | 42.0              | 34.7               | 33.9           | 23.2           | 19.9           | 25.1           | 20.6           | 22.6           | 15.2              | 22.9           |
| <b>Number of shares as of December 31<sup>2</sup> (in thousands)</b>                 | <b>1,080,880</b>  | <b>1,028,758</b>   | <b>999,360</b> | <b>956,370</b> | <b>918,479</b> | <b>918,479</b> | <b>918,479</b> | <b>918,479</b> | <b>918,479</b>    | <b>918,479</b> |

<sup>1</sup> Starting in 2005, the accounting and reporting of the BASF Group have been performed in accordance with International Financial Reporting Standards (IFRS). The 2004 figures have been reported in accordance with IFRS to the German Commercial Code

<sup>2</sup> Adjusted for 2-1 stock split in 2008

<sup>3</sup> Before external financing of pension obligations

<sup>4</sup> Cash provided by operating activities less capital expenditure

<sup>5</sup> Without non-compensable oil taxes

<sup>6</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly

## 3.3 Regional results

### Sales by location of company<sup>1</sup>

| (Million €)                        | 2004          | 2005          | 2006          | 2007          | 2008          | 2009          | 2010          | 2011          | 2012 <sup>2</sup> | 2013          |
|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|
| Europe                             | 22,536        | 25,093        | 31,444        | 34,316        | 38,652        | 30,375        | 35,156        | 41,036        | 41,445            | 43,335        |
| Thereof Germany                    | 15,216        | 17,100        | 22,963        | 24,312        | 27,497        | 21,543        | 25,426        | 28,816        | 29,320            | 31,571        |
| North America                      | 8,165         | 9,542         | 11,415        | 12,007        | 11,937        | 9,404         | 13,246        | 14,727        | 14,441            | 14,573        |
| Asia Pacific                       | 4,911         | 6,042         | 7,450         | 8,785         | 8,664         | 7,997         | 11,642        | 13,316        | 11,694            | 11,679        |
| South America, Africa, Middle East | 1,925         | 2,068         | 2,301         | 2,843         | 3,051         | 2,917         | 3,829         | 4,418         | 4,549             | 4,386         |
| <b>Total</b>                       | <b>37,537</b> | <b>42,745</b> | <b>52,610</b> | <b>57,951</b> | <b>62,304</b> | <b>50,693</b> | <b>63,873</b> | <b>73,497</b> | <b>72,129</b>     | <b>73,973</b> |

### Sales by location of customer<sup>1</sup>

| (Million €)                        | 2004          | 2005          | 2006          | 2007          | 2008          | 2009          | 2010          | 2011          | 2012 <sup>2</sup> | 2013          |
|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|
| Europe                             | 21,343        | 23,755        | 29,529        | 32,347        | 36,693        | 28,532        | 33,201        | 39,124        | 39,428            | 41,221        |
| Thereof Germany                    | 7,382         | 8,865         | 11,062        | 11,967        | 13,796        | 10,666        | 12,225        | 14,705        | 15,210            | 14,446        |
| North America                      | 8,182         | 9,479         | 11,522        | 11,928        | 11,932        | 9,480         | 12,886        | 13,995        | 13,992            | 14,272        |
| Asia Pacific                       | 5,309         | 6,500         | 8,102         | 9,579         | 9,320         | 8,706         | 12,510        | 14,410        | 12,546            | 12,450        |
| South America, Africa, Middle East | 2,703         | 3,011         | 3,457         | 4,097         | 4,359         | 3,975         | 5,276         | 5,968         | 6,163             | 6,030         |
| <b>Total</b>                       | <b>37,537</b> | <b>42,745</b> | <b>52,610</b> | <b>57,951</b> | <b>62,304</b> | <b>50,693</b> | <b>63,873</b> | <b>73,497</b> | <b>72,129</b>     | <b>73,973</b> |

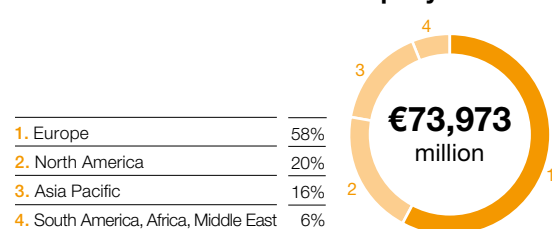
### Income from operations (EBIT)<sup>1</sup> before special items

| (Million €)                        | 2004         | 2005         | 2006         | 2007         | 2008         | 2009         | 2010         | 2011         | 2012 <sup>2</sup> | 2013         |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|--------------|
| Europe                             | 4,089        | 4,630        | 5,591        | 5,586        | 5,924        | 3,467        | 5,505        | 5,574        | 4,356             | 4,422        |
| Thereof Germany                    | 2,951        | 3,130        | 4,170        | 4,286        | 4,758        | 2,166        | 3,914        | 3,399        | 2,292             | 1,854        |
| North America                      | 444          | 865          | 927          | 916          | 222          | 501          | 1,092        | 1,321        | 1,036             | 1,539        |
| Asia Pacific                       | 372          | 353          | 519          | 800          | 382          | 599          | 1,276        | 1,096        | 888               | 842          |
| South America, Africa, Middle East | 325          | 290          | 220          | 312          | 328          | 285          | 265          | 456          | 367               | 387          |
| <b>Total</b>                       | <b>5,230</b> | <b>6,138</b> | <b>7,257</b> | <b>7,614</b> | <b>6,856</b> | <b>4,852</b> | <b>8,138</b> | <b>8,447</b> | <b>6,647</b>      | <b>7,190</b> |

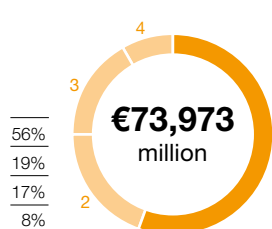
<sup>1</sup> Starting in 2005, the accounting and reporting of BASF Group have been prepared in accordance with International Financial Reporting Standards (IFRS). The 2004 figures have been restated in accordance with IFRS. Effective January 1, 2005, companies in Asia are reported in the "Asia Pacific" region. South America, which was previously reported separately, is now reported together with the geographic regions of Africa and Middle East in the "South America, Africa, Middle East" region. The 2004 figures have been reported in accordance with this

<sup>2</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly

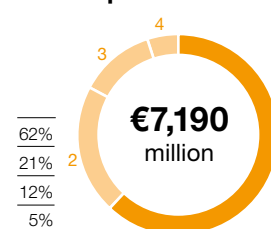
#### Sales by location of company 2013



#### Sales by location of customer 2013



#### Income from operations (EBIT) before special items 2013



## 3.4 Factors influencing sales

### Factors influencing sales – contribution to sales growth

(percent)

|                           | 2004      | 2005      | 2006      | 2007      | 2008     | 2009        | 2010      | 2011      | 2012 <sup>1</sup> | 2013     |
|---------------------------|-----------|-----------|-----------|-----------|----------|-------------|-----------|-----------|-------------------|----------|
| Volumes                   | 9         | 3         | 5         | 5         | 0        | (10)        | 11        | 0         | 1                 | 5        |
| Prices                    | 7         | 11        | 8         | 2         | 12       | (14)        | 8         | 12        | 1                 | 0        |
| Currencies                | (4)       | 1         | 0         | (4)       | (4)      | 1           | 5         | (2)       | 3                 | (3)      |
| Acquisitions/divestitures | 1         | (1)       | 10        | 7         | 0        | 4           | 2         | 5         | (1)               | 1        |
| <b>Total</b>              | <b>13</b> | <b>14</b> | <b>23</b> | <b>10</b> | <b>8</b> | <b>(19)</b> | <b>26</b> | <b>15</b> | <b>4</b>          | <b>3</b> |

<sup>1</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly.

### Factors influencing sales 2013

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. We increased sales by just under 3% to €73,973 million in 2013. 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 due to negative currency effects. 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.

### Sensitivities

#### Currency impact on BASF Group

Our competitiveness on global markets is influenced by fluctuations in exchange rates. For BASF's procurement, opportunities and risks arise in particular when the US dollar exchange rate fluctuates. A full-year rise in the value of the US 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 also result from the translation of receivables, liabilities and other monetary items into the functional currency of the respective Group company at the closing rate in accordance with IAS 21. 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.

#### Oil price impact on the Oil & Gas segment

Oil price changes affect the segment's sales and EBIT almost immediately in oil production and with a certain time lag in gas production and trading.

#### Annual impact of \$ change

(\$ exchange rate: – \$0.01 per €)

|       | million € |
|-------|-----------|
| Sales | +240      |
| EBIT  | +50       |

#### Annual impact of oil price change on Oil & Gas segment

(1 US\$/bbl rise in annual average Brent oil price)

|       | million € |
|-------|-----------|
| Sales | +40       |
| EBIT  | +15       |

### 3.5 Financing

#### Value-based financial management, high cash flow

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.

#### Financing policy

Corporate bonds form the basis of our medium to long-term debt financing. These are issued in euros and other currencies with different maturities to ensure a balanced maturity profile and a diverse range of investors.

For short-term financing we use our commercial paper program, which has an issuing volume of up to \$12.5 billion. 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 2013. Our external financing is therefore largely independent of short-term fluctuations in the credit markets.

Financial management in the BASF Group is centralized and is 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. Foreign currency risks are primarily hedged centrally by means of derivative financial instruments in the market. Off-balance sheet financing tools, such as leasing, are of minimal importance for BASF.

#### Cash flow

A cash flow of €7,870 million from operating activities in 2013 once again demonstrated BASF’s solid cash flow generation. We stepped up capital expenditure. In 2013, we spent €4.7 billion on property, plant and equipment, an increase of more than €700 million versus 2012. Despite this we were able to generate a strong free cash flow of €3.2 billion. Free cash flow has been above €2.5 billion since 2003 every single year.

#### Good credit ratings and solid financing

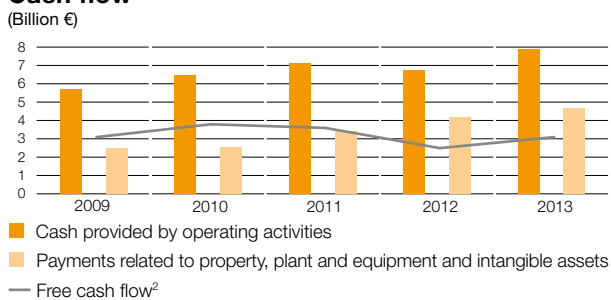
With “A+/A-1/outlook stable” from rating agency Standard & Poor’s and “A1/P-1/outlook stable” from Moody’s, BASF has good credit ratings, especially in comparison with competitors in the chemical industry.

At the end of 2013, the financial indebtedness of the BASF Group was €14.4 billion with liquid funds of €1.8 billion. The average maturity of our financial indebtedness was 5.5 years.

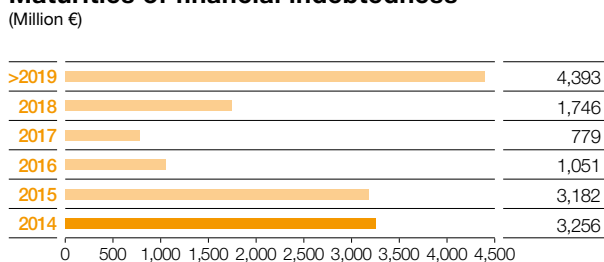
#### Credit Ratings

|                   |                       |
|-------------------|-----------------------|
| Standard & Poor’s | A+/A-1/outlook stable |
| Moody’s           | A1/P-1/outlook stable |

#### Cash flow<sup>1</sup>



#### Maturities of financial indebtedness



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

<sup>2</sup> Cash provided by operating activities less capital expenditure, w/o acquisitions

## 3.6 Balance sheet

### Balance sheet (IFRS)<sup>1</sup>

| (Million €)   | 2004          | 2005          | 2006          | 2007          | 2008          | 2009          | 2010          | 2011          | 2012 <sup>2</sup> | 2013          |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|
| Intangible assets                                     | 3,607         | 3,720         | 8,922         | 9,559         | 9,889         | 10,449        | 12,245        | 11,919        | 12,193            | 12,235        |
| Thereof goodwill                                      | 1,972         | 2,139         | 4,713         | 4,305         | 4,748         | 5,069         | 5,873         | 5,962         | 6,384             | 6,872         |
| Property, plant and equipment                         | 13,063        | 13,987        | 14,902        | 14,215        | 15,032        | 16,285        | 17,241        | 17,966        | 16,610            | 18,254        |
| Investments accounted for using the equity method     | 1,100         | 244           | 651           | 834           | 1,146         | 1,340         | 1,328         | 1,852         | 3,459             | 4,137         |
| Other financial assets                                | 938           | 813           | 1,190         | 1,952         | 1,947         | 1,619         | 1,953         | 848           | 613               | 630           |
| Deferred taxes  | 1,337         | 1,255         | 622           | 679           | 930           | 1,042         | 1,112         | 941           | 1,473             | 992           |
| Other receivables and miscellaneous long-term assets  | 473           | 524           | 612           | 655           | 642           | 946           | 653           | 561           | 911               | 876           |
| <b>Noncurrent assets</b>                              | <b>20,518</b> | <b>20,543</b> | <b>26,899</b> | <b>27,894</b> | <b>29,586</b> | <b>31,681</b> | <b>34,532</b> | <b>34,087</b> | <b>35,259</b>     | <b>37,124</b> |
| Inventories   | 4,645         | 5,430         | 6,672         | 6,578         | 6,763         | 6,776         | 8,688         | 10,059        | 9,581             | 9,592         |
| Accounts receivable, trade                            | 5,861         | 7,020         | 8,223         | 8,561         | 7,752         | 7,738         | 10,167        | 10,886        | 9,506             | 9,376         |
| Other receivables and miscellaneous short-term assets | 2,133         | 1,586         | 2,607         | 2,337         | 3,948         | 3,223         | 3,883         | 3,781         | 3,455             | 3,630         |
| Marketable securities                                 | 205           | 183           | 56            | 51            | 35            | 15            | 16            | 19            | 14                | 17            |
| Cash and cash equivalents                             | 2,086         | 908           | 834           | 767           | 2,776         | 1,835         | 1,493         | 2,048         | 1,647             | 1,815         |
| Assets of disposal groups                             | –             | –             | –             | 614           | –             | –             | 614           | 295           | 3,264             | 2,828         |
| <b>Current assets</b>                                 | <b>14,930</b> | <b>15,127</b> | <b>18,392</b> | <b>18,908</b> | <b>21,274</b> | <b>19,587</b> | <b>24,861</b> | <b>27,088</b> | <b>27,467</b>     | <b>27,258</b> |
| <b>Total assets</b>                                   | <b>35,448</b> | <b>35,670</b> | <b>45,291</b> | <b>46,802</b> | <b>50,860</b> | <b>51,268</b> | <b>59,393</b> | <b>61,175</b> | <b>62,726</b>     | <b>64,382</b> |
| Subscribed capital                                    | 1,383         | 1,317         | 1,279         | 1,224         | 1,176         | 1,176         | 1,176         | 1,176         | 1,176             | 1,176         |
| Capital surplus                                       | 3,028         | 3,100         | 3,141         | 3,173         | 3,241         | 3,229         | 3,216         | 3,203         | 3,188             | 3,165         |
| Retained earnings                                     | 11,923        | 11,928        | 13,302        | 14,556        | 13,250        | 12,916        | 15,817        | 19,446        | 23,708            | 26,170        |
| Other comprehensive income                            | (60)          | 696           | 325           | 174           | (96)          | 156           | 1,195         | 314           | (3,461)           | (3,400)       |
| Minority interests                                    | 328           | 482           | 531           | 971           | 1,151         | 1,132         | 1,253         | 1,246         | 1,010             | 678           |
| <b>Equity</b>   | <b>16,602</b> | <b>17,523</b> | <b>18,578</b> | <b>20,098</b> | <b>18,722</b> | <b>18,609</b> | <b>22,657</b> | <b>25,385</b> | <b>25,621</b>     | <b>27,789</b> |
| Provisions for pensions and similar obligations       | 4,124         | 1,547         | 1,452         | 1,292         | 1,712         | 2,255         | 2,778         | 3,189         | 5,421             | 3,709         |
| Other provisions                                      | 2,376         | 2,791         | 3,080         | 3,015         | 2,757         | 3,289         | 3,352         | 3,335         | 2,925             | 2,924         |
| Deferred taxes  | 948           | 699           | 1,441         | 2,060         | 2,167         | 2,093         | 2,467         | 2,628         | 2,234             | 2,849         |
| Financial indebtedness                                | 1,845         | 3,682         | 5,788         | 6,954         | 8,290         | 12,444        | 11,670        | 9,019         | 8,704             | 11,151        |
| Other liabilities                                     | 1,079         | 1,043         | 972           | 901           | 917           | 898           | 901           | 1,142         | 1,111             | 1,157         |
| <b>Noncurrent liabilities</b>                         | <b>10,372</b> | <b>9,762</b>  | <b>12,733</b> | <b>14,222</b> | <b>15,843</b> | <b>20,979</b> | <b>21,168</b> | <b>19,313</b> | <b>20,395</b>     | <b>21,790</b> |
| Accounts payable, trade                               | 2,372         | 2,777         | 4,755         | 3,763         | 2,734         | 2,786         | 4,738         | 5,121         | 4,502             | 4,505         |
| Provisions  | 2,364         | 2,763         | 2,848         | 2,697         | 3,043         | 3,276         | 3,324         | 3,210         | 2,628             | 2,616         |
| Tax liabilities                                       | 644           | 887           | 858           | 881           | 860           | 1,003         | 1,140         | 1,038         | 870               | 954           |
| Financial indebtedness                                | 1,453         | 259           | 3,695         | 3,148         | 6,224         | 2,375         | 3,369         | 3,985         | 4,094             | 3,256         |
| Other liabilities                                     | 1,641         | 1,699         | 1,824         | 1,976         | 3,434         | 2,240         | 2,802         | 3,036         | 2,623             | 2,182         |
| Liabilities of disposal groups                        | –             | –             | –             | 17            | –             | –             | 195           | 87            | 1,993             | 1,290         |
| <b>Current liabilities</b>                            | <b>8,474</b>  | <b>8,385</b>  | <b>13,980</b> | <b>12,482</b> | <b>16,295</b> | <b>11,680</b> | <b>15,568</b> | <b>16,477</b> | <b>16,710</b>     | <b>14,803</b> |
| <b>Total stockholders' equity and liabilities</b>     | <b>35,448</b> | <b>35,670</b> | <b>45,291</b> | <b>46,802</b> | <b>50,860</b> | <b>51,268</b> | <b>59,393</b> | <b>61,175</b> | <b>62,726</b>     | <b>64,382</b> |
| Equity ratio (%)                                      | 47            | 49            | 41            | 43            | 37            | 36            | 38            | 41            | 41                | 43            |
| Net debt  | 1,212         | 3,033         | 8,649         | 9,335         | 11,738        | 12,984        | 13,546        | 10,956        | 11,151            | 12,592        |

<sup>1</sup> Starting in 2005, the accounting and reporting of the BASF Group have been performed in accordance with International Financial Reporting Standards (IFRS).

The 2004 figures have been reported in accordance with IFRS. The figures for the years up to and including 2003 were prepared in accordance with German Commercial Code

<sup>2</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly

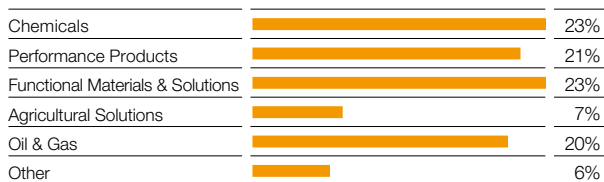
### 3.7 Business review by segment

#### Segment overview

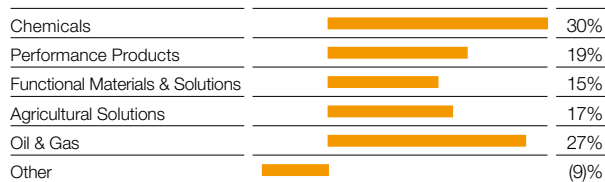
| (Million €)                      | Sales         |                   | Income from operations before depreciation and amortization (EBITDA) |                   | Income from operations (EBIT) before special items |                   |
|----------------------------------|---------------|-------------------|--|-------------------|--|-------------------|
|                                  | 2013          | 2012 <sup>1</sup> | 2013   | 2012 <sup>1</sup> | 2013   | 2012 <sup>1</sup> |
| Chemicals                        | 16,994        | 17,887            | 2,956  | 3,021             | 2,182  | 2,171             |
| Performance products             | 15,534        | 15,713            | 1,987  | 2,090             | 1,365  | 1,421             |
| Functional Materials & Solutions | 17,252        | 17,049            | 1,498  | 1,363             | 1,070  | 932               |
| Agricultural Solutions           | 5,227         | 4,679             | 1,375  | 1,182             | 1,222  | 1,037             |
| Oil & Gas                        | 14,776        | 12,740            | 3,144  | 2,445             | 1,969  | 1,876             |
| Other                            | 4,190         | 4,061             | (533)  | (92)              | (618)  | (790)             |
| <b>Total</b>                     | <b>73,973</b> | <b>72,129</b>     | <b>10,427</b>  | <b>10,009</b>     | <b>7,190</b>                                       | <b>6,647</b>      |

<sup>1</sup> As of 2013, the accounting of BASF Group is performed in accordance with IFRS 10 and 11 as well as International Accounting Standard (IAS) 19 (revised). The 2012 figures have been restated accordingly

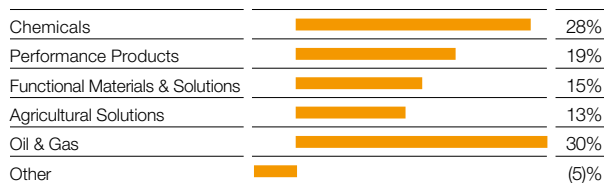
#### Contributions to total sales by segment 2013



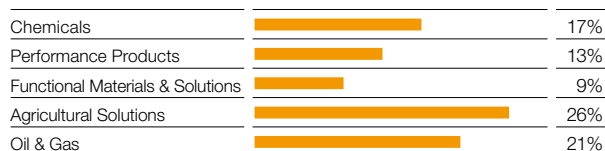
#### Contributions to EBIT before special items by segment 2013



#### Contributions to EBITDA by segment 2013



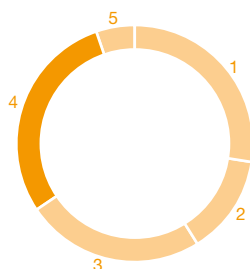
#### EBITDA margin by segment in 2013



#### Cash contributions by segment 2013<sup>1</sup>

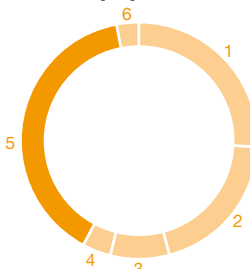
(Million €)

|                                     |       |
|-------------------------------------|-------|
| 1. Chemicals                        | 998   |
| 2. Performance Products             | 490   |
| 3. Functional Materials & Solutions | 887   |
| 4. Agricultural Solutions           | 1,051 |
| 5. Oil&Gas                          | 190   |



#### Additions to property, plant and equipment by segment in 2013<sup>2</sup>

|                                     |     |
|-------------------------------------|-----|
| 1. Chemicals                        | 26% |
| 2. Performance Products             | 20% |
| 3. Functional Materials & Solutions | 8%  |
| 4. Agricultural Solutions           | 4%  |
| 5. Oil & Gas                        | 39% |
| 6. Other (infrastructure, R&D)      | 3%  |



<sup>1</sup> Cash contribution is here defined as EBITDA – additions to property, plant and equipment and intangible assets by segment

<sup>2</sup> Does not include intangible assets

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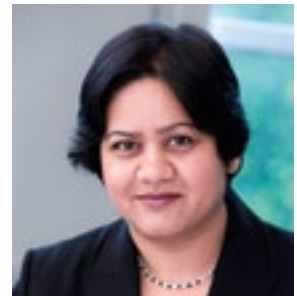
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  - Capital market story
  - SRI Story
  - Debt issuance program
  - Roadshow presentations
  - Investor Day
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Interim Report 3rd Quarter 2014

# October 24, 2014

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Full Year Results 2014

# February 27, 2015

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Annual Shareholders' Meeting 2015/Interim Report 1st Quarter 2015

# April 30, 2015

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Interim Report 1st Half 2015

# July 24, 2015

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Interim Report 3rd Quarter 2015

# October 27, 2015

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BASF supports the chemical industry's global initiative Responsible Care.

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