BASF in Ludwigshafen
Report 2013

Dr. Stefan Koch working in the research lab for renewable raw materials
Chemicals

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

Performance Products

Our Performance Products lend stability and color to many everyday items and help to improve their application properties. Our product portfolio also includes vitamins and other food additives as well as ingredients for pharmaceuticals and for hygiene, home and personal care items. Other products from this segment improve processes in the paper industry, oil and gas production, mining and water treatment. They can also enhance the efficiency of fuels and lubricants, the effectiveness of adhesives and coatings, and the stability of plastics.

Functional Materials & Solutions

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

Agricultural Solutions

Our crop protection products guard against fungal diseases, insects and weeds, increase the quality of agricultural products and secure crop yields. Our research in plant biotechnology concentrates on plants for greater efficiency in agriculture, better nutrition, and use as renewable raw materials.

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

Oil & Gas

We focus our exploration and production on oil and gas-rich regions in Europe, North Africa, South America, Russia and the Middle East. Together with our Russian partner Gazprom, we are active in the transport, storage and trading of natural gas in Europe.

Key data Chemicals (million €)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>16,994</td>
<td>17,887</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Thereof Petrochemicals</td>
<td>7,785</td>
<td>8,260</td>
<td>(5.8)</td>
</tr>
<tr>
<td>Monomers</td>
<td>6,385</td>
<td>6,772</td>
<td>(5.7)</td>
</tr>
<tr>
<td>Intermediates</td>
<td>2,824</td>
<td>2,855</td>
<td>(1.1)</td>
</tr>
<tr>
<td>EBITDA</td>
<td>2,956</td>
<td>3,021</td>
<td>(2.2)</td>
</tr>
<tr>
<td>Income from operations</td>
<td>2,182</td>
<td>2,171</td>
<td>0.5</td>
</tr>
<tr>
<td>before special items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from operations</td>
<td>2,086</td>
<td>2,173</td>
<td>(4.0)</td>
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</table>

Key data Performance Products (million €)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
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<tbody>
<tr>
<td>Sales</td>
<td>15,534</td>
<td>15,713</td>
<td>(1.1)</td>
</tr>
<tr>
<td>Thereof Dispersions &amp; Pigments</td>
<td>3,557</td>
<td>3,668</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Care Chemicals</td>
<td>4,871</td>
<td>4,898</td>
<td>(0.6)</td>
</tr>
<tr>
<td>Nutrition &amp; Health</td>
<td>2,088</td>
<td>1,959</td>
<td>6.6</td>
</tr>
<tr>
<td>Paper Chemicals</td>
<td>1,442</td>
<td>1,564</td>
<td>(7.8)</td>
</tr>
<tr>
<td>Performance Chemicals</td>
<td>3,576</td>
<td>3,624</td>
<td>(1.3)</td>
</tr>
<tr>
<td>EBITDA</td>
<td>1,987</td>
<td>2,090</td>
<td>(4.9)</td>
</tr>
<tr>
<td>Income from operations</td>
<td>1,365</td>
<td>1,421</td>
<td>(3.9)</td>
</tr>
<tr>
<td>before special items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from operations</td>
<td>1,100</td>
<td>1,276</td>
<td>(13.6)</td>
</tr>
</tbody>
</table>

Key data Functional Materials & Solutions (million €)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>17,252</td>
<td>17,049</td>
<td>1.2</td>
</tr>
<tr>
<td>Thereof Catalysts</td>
<td>5,708</td>
<td>5,568</td>
<td>2.5</td>
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<tr>
<td>Construction Chemicals</td>
<td>2,120</td>
<td>2,315</td>
<td>(8.4)</td>
</tr>
<tr>
<td>Coatings</td>
<td>2,927</td>
<td>2,961</td>
<td>(1.1)</td>
</tr>
<tr>
<td>Performance Materials</td>
<td>6,497</td>
<td>6,205</td>
<td>4.7</td>
</tr>
<tr>
<td>EBITDA</td>
<td>1,498</td>
<td>1,363</td>
<td>9.9</td>
</tr>
<tr>
<td>Income from operations</td>
<td>1,070</td>
<td>932</td>
<td>14.8</td>
</tr>
<tr>
<td>before special items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from operations</td>
<td>1,027</td>
<td>806</td>
<td>27.4</td>
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</table>

Key data Agricultural Solutions (million €)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>5,227</td>
<td>4,679</td>
<td>11.7</td>
</tr>
<tr>
<td>EBITDA</td>
<td>1,375</td>
<td>1,182</td>
<td>16.3</td>
</tr>
<tr>
<td>Income from operations</td>
<td>1,222</td>
<td>1,037</td>
<td>17.8</td>
</tr>
<tr>
<td>before special items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from operations</td>
<td>1,208</td>
<td>1,026</td>
<td>17.7</td>
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</table>

Key data Oil & Gas (million €)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>14,776</td>
<td>12,740</td>
<td>16.0</td>
</tr>
<tr>
<td>Thereof Exploration &amp; Production</td>
<td>2,929</td>
<td>2,584</td>
<td>13.4</td>
</tr>
<tr>
<td>Natural Gas Trading</td>
<td>11,847</td>
<td>10,156</td>
<td>16.7</td>
</tr>
<tr>
<td>EBITDA</td>
<td>3,144</td>
<td>2,445</td>
<td>28.6</td>
</tr>
<tr>
<td>Income from operations</td>
<td>1,969</td>
<td>1,876</td>
<td>5.0</td>
</tr>
<tr>
<td>before special items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from operations</td>
<td>2,516</td>
<td>1,676</td>
<td>50.1</td>
</tr>
<tr>
<td>Net income</td>
<td>1,780</td>
<td>1,201</td>
<td>48.2</td>
</tr>
</tbody>
</table>
**BASF Group 2013 at a glance**

### Economic data

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>million €</td>
<td>73,973</td>
<td>72,129</td>
</tr>
<tr>
<td>Income from operations before depreciation and amortization (EBITDA)</td>
<td>million €</td>
<td>10,427</td>
<td>10,009</td>
</tr>
<tr>
<td>Income from operations (EBIT) before special items</td>
<td>million €</td>
<td>7,190</td>
<td>6,647</td>
</tr>
<tr>
<td>Income from operations (EBIT)</td>
<td>million €</td>
<td>7,273</td>
<td>6,742</td>
</tr>
<tr>
<td>Income from operations (EBIT) after cost of capital</td>
<td>million €</td>
<td>1,872</td>
<td>1,164</td>
</tr>
<tr>
<td>Income before taxes and minority interests</td>
<td>million €</td>
<td>6,713</td>
<td>5,977</td>
</tr>
<tr>
<td>Net income</td>
<td>million €</td>
<td>4,842</td>
<td>4,819</td>
</tr>
<tr>
<td>Earnings per share</td>
<td>€</td>
<td>5.27</td>
<td>5.25</td>
</tr>
<tr>
<td>Adjusted earnings per share</td>
<td>€</td>
<td>53.7</td>
<td>5.64</td>
</tr>
<tr>
<td>Dividend per share</td>
<td>€</td>
<td>2.70</td>
<td>2.60</td>
</tr>
<tr>
<td>Cash provided by operating activities</td>
<td>million €</td>
<td>7,870</td>
<td>6,602</td>
</tr>
<tr>
<td>Additions to noncurrent assets</td>
<td>million €</td>
<td>7,513</td>
<td>5,263</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>million €</td>
<td>3,154</td>
<td>3,267</td>
</tr>
<tr>
<td>Return on assets</td>
<td>%</td>
<td>11.6</td>
<td>11.0</td>
</tr>
<tr>
<td>Return on equity after tax</td>
<td>%</td>
<td>19.4</td>
<td>19.9</td>
</tr>
</tbody>
</table>

1. Including acquisitions

### Value added 2013

**Creation of value added**  
(Million €, previous year’s figures in parentheses)

1. **Value added**  
17,028  
(15,994)

2. **Amortization and depreciation**  
3,154  
(3,267)

3. **Service purchased, energy costs and other expenses**  
12,562  
(12,856)

4. **Cost of raw materials and merchandise**  
43,124  
(41,950)

**Use of value added**  
(Previous year’s figures in parentheses)

- **Employees**: 54.6% (56.0%)
- **Government**: 11.0% (7.8%)
- **Creditors**: 4.0% (4.5%)
- **Minority interests**: 1.9% (1.6%)
- **Shareholders (Dividend and retention)**: 28.5% (30.1%)

**Business performance**  
75,868 (74,067)

### Innovation

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and development expenses</td>
<td>million €</td>
<td>1,835</td>
<td>1,732</td>
</tr>
<tr>
<td>Number of employees in research and development at year-end</td>
<td></td>
<td>10,631</td>
<td>10,456</td>
</tr>
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### Economic data

<table>
<thead>
<tr>
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<td></td>
</tr>
<tr>
<td>after cost of capital</td>
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<td>1,164</td>
<td>60.8</td>
</tr>
<tr>
<td>Income before taxes and</td>
<td>6,713</td>
<td>5,977</td>
<td>12.3</td>
</tr>
<tr>
<td>minority interests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net income</td>
<td>4,842</td>
<td>4,819</td>
<td>0.5</td>
</tr>
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<td>5.25</td>
<td>0.4</td>
</tr>
<tr>
<td>Adjusted earnings per share</td>
<td>5.37</td>
<td>5.64</td>
<td>(4.8)</td>
</tr>
<tr>
<td>Dividend per share</td>
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<td>2.60</td>
<td>3.8</td>
</tr>
<tr>
<td>Cash provided by operating</td>
<td>7,870</td>
<td>6,602</td>
<td>19.2</td>
</tr>
<tr>
<td>activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additions to noncurrent</td>
<td>7,513</td>
<td>5,263</td>
<td>42.8</td>
</tr>
<tr>
<td>assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation and amortization</td>
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<td>3,267</td>
<td>(3.5)</td>
</tr>
<tr>
<td>Return on assets</td>
<td>11.6</td>
<td>11.0</td>
<td>–</td>
</tr>
<tr>
<td>Return on equity after tax</td>
<td>19.4</td>
<td>19.9</td>
<td>–</td>
</tr>
</tbody>
</table>

### Employees and society

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees at year-end</td>
<td>112,206</td>
<td>110,782</td>
<td>1.3</td>
</tr>
<tr>
<td>Apprentices at year-end</td>
<td>3,060</td>
<td>2,809</td>
<td>8.9</td>
</tr>
<tr>
<td>Personnel expenses</td>
<td>9,285</td>
<td>8,963</td>
<td>3.6</td>
</tr>
<tr>
<td>Annual bonus</td>
<td>98.9</td>
<td>97.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Donations and sponsorship</td>
<td>49.2</td>
<td>49.0</td>
<td>0.4</td>
</tr>
</tbody>
</table>

### Supply chain management and Responsible Care

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of on-site sustainability audits of raw material suppliers</td>
<td>155</td>
<td>210</td>
<td>(26.0)</td>
</tr>
<tr>
<td>Number of environmental and safety audits</td>
<td>132</td>
<td>112</td>
<td>17.9</td>
</tr>
<tr>
<td>Number of occupational medicine and health protection audits</td>
<td>44</td>
<td>42</td>
<td>4.8</td>
</tr>
</tbody>
</table>

1 In 2013, we updated our approach for evaluating suppliers. In addition to on-site audits, we initiated 550 sustainability evaluations online through external service providers.

### Safety and health

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation accidents</td>
<td>0.22</td>
<td>0.24</td>
<td>(8)</td>
</tr>
<tr>
<td>Product spillages during</td>
<td>0.23</td>
<td>0.25</td>
<td>(8)</td>
</tr>
<tr>
<td>transportation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lost time injuries</td>
<td>1.4</td>
<td>1.7</td>
<td>(18)</td>
</tr>
<tr>
<td>Health Performance Index</td>
<td>0.89</td>
<td>0.89</td>
<td>0.4</td>
</tr>
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</table>

### Environment

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
<th>Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary energy usage</td>
<td>59.2</td>
<td>57.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Energy efficiency in production processes</td>
<td>0.592</td>
<td>0.602</td>
<td>(1.7)</td>
</tr>
<tr>
<td>Total water withdrawal</td>
<td>1,781</td>
<td>1,999</td>
<td>(10.9)</td>
</tr>
<tr>
<td>Withdrawal of drinking water</td>
<td>22.6</td>
<td>23.2</td>
<td>(2.5)</td>
</tr>
<tr>
<td>Emissions of organic substances to water</td>
<td>19.7</td>
<td>21.2</td>
<td>(7.5)</td>
</tr>
<tr>
<td>Emissions of nitrogen to water</td>
<td>2.9</td>
<td>2.8</td>
<td>4.7</td>
</tr>
<tr>
<td>Emissions of heavy metals to water</td>
<td>21.9</td>
<td>26.2</td>
<td>(16.7)</td>
</tr>
<tr>
<td>Emissions of greenhouse gases</td>
<td>23.0</td>
<td>22.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Emissions to air (air pollutants)</td>
<td>32.4</td>
<td>30.6</td>
<td>5.9</td>
</tr>
<tr>
<td>Waste</td>
<td>2.5</td>
<td>2.2</td>
<td>11.8</td>
</tr>
<tr>
<td>Operating costs for environmental protection facilities</td>
<td>893</td>
<td>901</td>
<td>(0.9)</td>
</tr>
<tr>
<td>Investments in environmental protection</td>
<td>325</td>
<td>268</td>
<td>21.3</td>
</tr>
</tbody>
</table>

1 Primary energy used in BASF's plants as well as in the plants of our energy suppliers to cover energy demand for production processes

5 Excluding emissions from oil and gas production
We create chemistry that helps lush landscapes love thriving cities.

The construction industry currently accounts for about half of the world’s consumption of energy and resources. It’s a substantial amount – but it can be reduced, if you just add the right chemistry.

We’ve developed a number of solutions that make construction more mindful of the environment and buildings that are more durable and efficient throughout their life cycle. The result is that new developments are less taxing on our finite resources in the short and long term.

When we can build more while using less, it’s because at BASF, we create chemistry.

To share our vision visit wecreatechemistry.com/construction
Working together well is part of our recipe for success at BASF. It describes very nicely how we think, act and work at the Ludwigshafen site.

Working together is a core value of LuMit, our new Center for Work-Life Management. At the beginning of November 2013, it opened its doors. Just outside the site’s gates, over 550 employees take advantage of the wide range of services on a daily basis. Social counseling, a health and fitness facility and all-day care for 250 children help our employees cope better with the day-to-day demands of modern life. LuMit clearly represents our commitment to work-life balance – and also to the Ludwigshafen site.

Many things also happened on site in the previous year. Never before have so many contractors worked for us. In 2013, about 13,000 employees of external contractors supported us at numerous construction sites to help us complete our many projects in a timely manner. We want to review our cooperation with our contractors and continue to foster a safety-oriented and trust-based culture.

The TDI plant in the middle of our site is taking shape with the help of many external workers. It is one of our largest investments and will make the entire site even more competitive. In the course of building the new facility, further plants are being constructed. Furthermore, the infrastructure is undergoing modernization and expansion.

This strengthens the production Verbund in Ludwigshafen. It allows us to produce efficiently in terms of costs and resources. It is made up of about 250 plants, all linked together by a network of pipes. This is yet another example of how working together well is a key to success.

Sincerely yours,

Margret Suckale
Member of the Board of Executive Directors of BASF SE
Site Director Ludwigshafen
About this report

The “BASF in Ludwigshafen – Report” is published annually as a concise document about the performance of our activities across the three dimensions of sustainability – economy, environment, and society – in Ludwigshafen. The reporting period for this publication is the financial year 2013. This report also carries an overview of BASF Group along with its financial performance, prepared in accordance with the requirements of the German Commercial Code and the International Financial Reporting Standards (IFRS). Since January 1, 2013, BASF has applied IFRS 10 and 11 and International Accounting Standard (IAS) 19 (revised). We have adjusted the figures for the 2012 financial year accordingly in order to ensure comparability. The figures for the 2011 financial year and earlier were not restated according to the new accounting and reporting standards IFRS 10 and 11. The emissions, waste, energy and water use of consolidated joint operations are included pro rata, based on our stake. The employee numbers refer to employees within the BASF Group scope of consolidation as of December 31, 2013.
Safeguarding and further developing Ludwigshafen as one of the world’s most efficient and highly productive chemical Verbund sites is one of the key tasks of the Board of Site Management.

The board, chaired by the Site Manager, coordinates the interaction between the units at the site in order to pool synergies and optimize cost structures. In this way, the heads of the operating and functional divisions ensure that the overall interest of the company takes precedence over the interests of the individual units.

Our aim is to be successful on the global market and attract investment. Therefore the site agreement 2015 includes significant expenditures for a comprehensive package for the future.

Since 2009, the Opal 21 project has ensured that production at BASF’s two largest European Verbund sites in Ludwigshafen and Antwerp remains economically viable and thus competitive: A standard production system that is gradually being introduced in the plants will increase BASF’s performance in the long term. The project is being managed by the Board of Site Management.

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Board of Site Management
Shaping the fortunes of the production site

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Members of the Board of Site Management in 2013 (left to right): Division Presidents Stefano Pigozzi, Dr. Wolfgang Hapke, Gabriel Tanbourgi, Dr. Volker Knabe, Dr. Ulrich von Deessen, Dr. Friedrich Seltz (Site Manager), Prof. Dr. Rainer Diercks, Markus Heldt.

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Board of Site Management

– oversees and manages the development of the Ludwigshafen site
– guarantees that the site remains attractive for investments
– strengthens the site with competitive cost structures
– thereby secures Ludwigshafen’s position as one of the world’s most efficient and highly productive chemical Verbund sites
– ensures that planning and decision-making are always in the overall interest of the company
Corporate strategy

With the “We create chemistry” strategy, BASF has set itself ambitious goals in order to strengthen its position as the world’s leading chemical company. We want to contribute to a sustainable future, and have embedded this into our corporate purpose: “We create chemistry for a sustainable future.”

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

Our purpose
We create chemistry for a sustainable future

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

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

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

Our leading position as an integrated global chemical company opens up opportunities for us in all three of these areas. In pursuing them, we act in accordance with four strategic principles.

Our strategic principles

We add value as one company

Our Verbund concept is unique in the industry. We plan to strengthen this sophisticated and profitable system even further. It extends from the Production Verbund and Technology Verbund to the Know-How Verbund, and provides access to all relevant customer industries worldwide. In this way, we combine our strengths and add value as one company.

We innovate to make our customers more successful

We want to align our business even more closely with our customers’ needs and contribute to their success with innovative and sustainable solutions. Through close partnerships with customers and research institutes, we link expertise in chemistry, biology, physics, materials sciences and engineering to jointly develop customized products as well as functional materials and system solutions.

We drive sustainable solutions

In the future, sustainability will serve more than ever before as a starting point for new business opportunities. We therefore value sustainability and innovation as important drivers for profitable growth.

We form the best team

Committed and qualified employees around the world are the key to making our contribution to a sustainable future. That is why we will continue to pursue our goal of building the best team. We offer excellent working conditions and an open leadership culture that fosters mutual trust and respect and encourages high motivation.

Our values

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

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

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

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

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

Growth and profitability

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

1 For more on the application of International Financial Reporting Standards 10 and 11, see basf.com/goals

Employees

<table>
<thead>
<tr>
<th>Long-term goals</th>
<th>Status at year-end 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>International proportion of senior executives</td>
<td>Increase in the proportion of non-German senior executives (baseline 2003: 30%)</td>
</tr>
<tr>
<td>Senior executives with international experience</td>
<td>Proportion of senior executives with international experience over 80%</td>
</tr>
<tr>
<td>Women in executive positions</td>
<td>Increase in the proportion of female executives worldwide</td>
</tr>
<tr>
<td>Employee development</td>
<td>Establishment of employee development as a responsibility shared by employees and leaders based on relevant processes and tools</td>
</tr>
</tbody>
</table>

Environment, safety, security and health

<table>
<thead>
<tr>
<th>Energy and climate protection</th>
<th>2020 Goals</th>
<th>Status at year-end 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of energy efficiency in production processes (^1) (baseline 2002)</td>
<td>+35%</td>
<td>+19.8%</td>
</tr>
<tr>
<td>Greenhouse gas emissions per metric ton of sales product (^1) (baseline 2002)</td>
<td>–40%</td>
<td>–34.0%</td>
</tr>
<tr>
<td>Stop flaring of associated gas released during Wintershall’s production of crude oil (2012 goal)</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Greenhouse gas emissions per amount and distance of transported gas (baseline 2010)</td>
<td>–10%</td>
<td>–9.0%</td>
</tr>
</tbody>
</table>

Water

| Emission of organic substances to water \(^1\) (baseline 2002) | –80% | –78.5% |
| Emission of nitrogen to water \(^1\) (baseline 2002) | –80% | –86.8% |
| Emission of heavy metals to water \(^1\) (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 \(^1\) (baseline 2010) | 100% | 11.1% |

Air

| Emission of air pollutants \(^1\) (baseline 2002) | –70% | –62.2% |
| Transportation | Transportation accidents per 10,000 shipments (baseline 2003) | –70% | –61% |

Production

| Lost time injuries per million working hours (baseline 2002) | –80% | –58% |
| Health Performance Index (annual goal) | >0.9 | 0.89 |

Products

| Risk assessment for all products sold worldwide by BASF in quantities of more than one metric ton per year | >99% | 56% |

\(^1\) Excluding oil and gas production
BASF in the Regions
Sales 2013: €73,973 million; EBIT before special items 2013: €7,190 million

North America
Sales 1 (in million €) | EBIT before special items 1 (in million €) | Employees 2
---|---|---
14,573 | 1,539 | 16,996

South America, Africa, Middle East
Sales 1 (in million €) | EBIT before special items 1 (in million €) | Employees 2
---|---|---
4,386 | 387 | 7,525

North America
At €14,573 million, sales for companies headquartered in North America were up year-on-year by 1%. In local-currency terms, sales in the region grew by 4%. Income from operations before special items increased by 49% to €1,539 million compared with the previous year.

South America, Africa, Middle East
At €4,386 million, sales for companies headquartered in South America, Africa, Middle East were 4% below the level of 2012. In local-currency terms, sales rose by 7%. Income from operations before special items in the region improved by 5% to €387 million.
In 2013, companies headquartered in Europe posted a sales increase of 5% to €43,335 million. At €4,422 million, income from operations before special items surpassed the level of the previous year by 2%.

Companies headquartered in Asia Pacific were able to increase sales by 5% in local-currency terms in 2013; in euro terms, sales matched the prior-year level, reaching €11,679 million. Income from operations before special items declined by 5% to €842 million.
The BASF Group

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

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

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

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

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

Markets and sites
BASF has companies in more than eighty countries and supplies products to a large number of business partners in nearly every part of the world. In 2013, we achieved 56% of our sales with customers in Europe, of which 35 percentage points were in the Oil & Gas segment. North America accounted for 19% of sales; Asia Pacific, 17%; and 8% of sales were generated in South America, Africa, Middle East.

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

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

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

Corporate legal structure
As the publicly traded parent company, BASF SE takes a central position: Directly or indirectly, it holds the shares in the companies belonging to the BASF Group, and is also the largest operating company. The majority of Group companies cover a broad spectrum of our business. Some concentrate on specific business areas.

The picture shows one of various tanks that supply the production facilities in Ludwigshafen with feedstocks.
BASF in Europe
Our home market

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

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

At €4,422 million, income from operations before special items surpassed the level of the previous year by 2%. Higher contributions from the Agricultural Solutions segment and improved earnings in Other were able to more than offset lower earnings in the chemicals business, which fell by 5% to €2,550 million.

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

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

The number of employees in Europe increased slightly to 70,977 as of December 31, 2013.

Verbund and research sites
In addition to our Verbund site and headquarters in Ludwigshafen, Germany, we operate another Verbund site in Antwerp, Belgium. Research and development in Europe are based mainly in Ludwigshafen. In addition, we also have research sites in Basel, Switzerland (additives and pigments for plastics and coatings, effect molecules (Effektstoffe) for detergents and cleaners as well as cosmetic applications, organic electronics), Berlin (plant biotechnology, metabolism analytics), Düsseldorf (surfactants), renewable raw materials and lipid biotechnology), Lemförder (polyurethanes), Münster (automotive coatings) and Trostberg (construction chemicals).
History of BASF
Success loves tradition

When Friedrich Engelhorn established the Badische Anilin- & Soda Fabrik (BASF) in 1865, he created the foundation for success factors like the Verbund, research, social responsibility and international focus.

BASF establishes the Verbund concept
Engelhorn developed a pioneering way to satisfy the textile industry’s demand for dyes: He launched a business that combined vertically integrated production, from raw and auxiliary materials to precursors, intermediates and the dyes themselves, at one site. This was the beginning of the Verbund concept. Today, BASF operates six Verbund sites worldwide.

BASF research sets milestones
Right from day one, research has been the driving force behind BASF’s success. With Heinrich Caro as the first director of research (from 1868), the company began to achieve its first scientific and technical successes: the synthesis of the first natural dye, alizarin, in 1869 and the market launch of “pure indigo from BASF,” which was later used to dye jeans, in 1897. A new chapter began in 1913 when synthetic ammonia was manufactured for the first time. BASF’s pioneering work in the field of high-pressure technology was recognized in 1931 when the Nobel Prize in Chemistry was awarded to Carl Bosch. Many of the plastics that we see all around us today were not only invented in Ludwigshafen (e.g., polystyrene in 1930), but were also produced for the first time here (e.g., Styropor in 1951). The focus today is on topics such as the development of highly functionalized materials and systems, nanotechnology, white biotechnology, plant biotechnology, energy efficiency and raw material change.

Founding fathers venture out into the world
Even its early days, BASF already had an international focus. It began setting up sales offices worldwide in the 19th century. The first production subsidiaries of BASF abroad were founded in Butirki near Moscow in 1877 and in the French town of Neuville-sur-Saône in 1878. This was followed by the first sales activities in China in 1885. Today BASF is represented in more than 80 countries around the world.

A long tradition of social responsibility
Just one year after the founding of the company, BASF hired its first company physician in 1866. Since then, BASF has offered its employees occupational health advice and a wide range of services relating to health.

For more information, see basf.com/history

Eras in BASF’s history

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<tbody>
<tr>
<td>The birth of the chemical industry and the age of dyes</td>
<td>Development of the Haber-Bosch process; the age of fertilizers</td>
<td>New forms of high-pressure synthesis</td>
<td>A fresh start and the dawn of the age of plastics</td>
<td>Becoming a transnational company</td>
<td>Entering the new century with sustainability</td>
</tr>
</tbody>
</table>
Every workday, around 39,000 employees head to work at their jobs in Ludwigshafen – more than one-third of BASF employees worldwide. Working at BASF’s headquarters in Ludwigshafen offers variety and global perspectives. It is BASF’s largest production site worldwide. The majority of research and development activity as well as the corporate units and competence centers are located in Ludwigshafen. We train young employees in around 40 primarily technical and scientific occupations.

The Ludwigshafen site covers around ten square kilometers, making it the world’s largest integrated chemical facility. A dense network of about 120 production plants provides the ideal conditions for manufacturing complex and highly refined products. Ludwigshafen is the company’s headquarters and where the Board of Executive Directors is based. As the technology platform and competence center for the entire BASF Group, this site is a key source of innovations in products, methods and processes.

Effective and efficient infrastructure ensures the smooth passage of goods. The site is situated right next to the freeway, is linked to the public rail network and maintains dedicated rail connections to the company’s other European sites. With berths for vessels to dock directly on the Rhine and its northern inland port, BASF has transshipment facilities that lead the way in terms of safety standards.
Economic environment

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

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

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

Sales and income from operations

In 2013, BASF SE’s sales rose by 2.0% to €23,466 million compared with the previous year. This sales increase resulted from higher sales volumes, especially from additional trading business with the products of one Group company in the fourth quarter of 2013. In addition to modifications in the product mix, negative price and currency effects with continuing high raw material prices and energy costs in individual value chains all led to lower margins. At €5,074 million, gross profit on sales nevertheless matched the previous year’s level due to slightly higher capacity utilization for production plants. Selling expenses rose by €56 million, largely as a result of increased distribution costs on account of higher sales volumes. Research spending rose by €86 million compared with the previous year due to higher research expenses in various divisions as well as for cross-divisional corporate research.

Income from operations decreased by €207 million to €696 million.
Site Marketing

BASF’s Ludwigshafen site is situated in a location with great transport links in the heart of the economically thriving Rhine-Neckar European metropolitan region. It is home to around 25 companies: As well as BASF SE, the largest business on the site, 12 Group companies and a number of external companies are based here. To make full use of the site’s potential, we are always on the lookout for new partners.

Long-term partnerships
The Ludwigshafen site is the largest production Verbund within the BASF Group: Production plants, energy and waste flows, logistics and infrastructure are all closely interlinked. Chemical companies and processors can enter into long-term partnerships with us and take advantage of the infrastructure and services which have been established for many decades. These include our analytical facilities, fabricated equipment and mechanical engineering, infrastructure services and our residue incinerator.

Site marketing supports partners
We attract companies to the site that fit into the Verbund and support them from day one right through to when they start production. We have been cooperating successfully for many years with a number of long-term partners, including Basell Polyelefine GmbH and DyStar Colours Distribution GmbH; a relatively new major partner is Styrolution GmbH. But we are also keen to attract newcomers. Since 2004, BASF has been working with Ludwigshafen City Council and the State of Rhineland-Palatinate to help founders of businesses with a link to chemistry as well as small and medium-sized businesses with the “chem2biz” initiative. The implementation is a shared task: At the technology center in Ludwigshafen (TZL) start-up entrepreneurs receive advice and support when it comes to applying for funding. In addition, BASF SE leases laboratory facilities, provides technology and offers services.

For more information, see basf.com/ansiedlungsmanagement www.chem2biz.de
**Lampertheim Site**

Production site in the north

In Lampertheim, located in the federal state of Hesse around 20 kilometers north of Ludwigshafen, BASF Lampertheim GmbH operates a production site. The site mainly produces and distributes additives for plastics and coatings as well as precursors for UV filters used in sunscreen.

The production workers in BASF’s Performance Chemicals division make products such as high-value additives for plastics and coatings. Some of the Performance Chemicals sales organization is based in Lampertheim. Since January 2011, Lampertheim has also been the headquarters of BASF’s global Nutrition & Health division.

**Production of specialty chemicals**

Up to 40,000 metric tons of specialty chemicals are produced at BASF Lampertheim GmbH each year. They include:

- Light stabilizers: They prevent plastics from aging prematurely due to the influence of light. These plastics are used in the production of cars and greenhouse films, for example. In sunscreen and anti-aging cosmetics, they protect the skin from harmful UV radiation.
- Halogen-free flame retardants for plastics: They have a fire-retardant effect and protect cables, safety devices, stadium seats and computer casing.
- Processing stabilizers for plastics: They ensure that plastics are not damaged during production processes.
- Additive blends for plastics: At the Lampertheim site, additives are blended, ground and granulated.

For more information, see www.lampertheim.basf.de

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**BASF completes start up of new combined heat and power plant in Lampertheim**

Following an eight-month construction period and a successful test run, the new combined heat and power plant at the BASF site in Lampertheim, South Hesse, has successfully completed its start-up phase. The plant has an investment volume of €14 million and supplies the entire BASF site with power and steam. The use of this new technology enables us to reduce our energy costs by 20% and decrease carbon emissions by around 14,000 metric tons per year. Wide-ranging measures were taken to reduce acoustic emissions. In total, BASF operates combined heat and power plants at 14 sites worldwide, which meet 70% of the electricity demand of the BASF Group.

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**Facts and Figures (As of December 31, 2013)**

- Size: 45 hectares
- Around 500 employees at BASF Lampertheim GmbH, working mainly in production
- Around 280 employees at BASF SE’s Nutrition & Health division
Limburgerhof Agricultural Center
Research hub in the south

The Limburgerhof Agricultural Center is situated roughly 10 kilometers south of Ludwigshafen and is the main hub for BASF’s research and development activities related to crop protection, seed treatment, traits and solutions that go beyond crop protection. For organizational purposes, the Agricultural Center forms part of the Ludwigshafen site.

Foundation of industrial agricultural chemistry
At BASF’s headquarters in Ludwigshafen in 1913, chemist Carl Bosch first developed a process that allowed BASF to manufacture nitrogen fertilizers cost-effectively in large quantities. To investigate the effectiveness of these products, the company established the Limburgerhof agricultural testing station in 1914, laying the foundation for industrial agricultural chemistry in Germany.

Development of new technologies
Bringing together expertise at one site, the main focus today at Limburgerhof Agricultural Center is on developing new solutions for use in agriculture. This means combining economic success with environmental protection and social responsibility.

The Crop Protection division offers farmers products such as proven and innovative fungicides, insecticides, and herbicides to combat infestation, pests and weeds, as well as products to promote crop health. Seed treatment solutions and the development of technologies and products that go beyond crop protection round out the division’s activities.

In October 2013, we concluded the structural integration of the businesses acquired from Becker Underwood at the end of 2012. The Functional Crop Care global business unit was established in the course of the acquisition. It develops solutions for resource and stress management, which increase yields and are environmentally friendly. The main areas of concentration are soil management, seed treatment and the optimal care of crops.

Facts and Figures (As of December 31, 2013)
- Size: 41 hectares
- Research and development in the areas of crop protection, seed treatment, traits and solutions that go beyond crop protection as well as marketing and distribution
- Around 1,500 employees, including farmers, gardeners, chemists, biologists and business people

Agriculture at Rehhütte Farm
Rehhütte Farm is situated near Limburgerhof Agricultural Center and is one of the largest farming operations in the state of Rhineland-Palatinate. It forms a link between industry and farming. This is where we show farmers how they can benefit from our fertilizers and crop protection products. Results obtained from field tests in agricultural research are put directly into practice. But Rehhütte Farm is also an important communications center; BASF engages in dialog with its neighbors through scientific symposia, guided tours and the farmers’ market which has been held regularly since 1996 on the Saturday before Pentecost.

For more information, see [www.agro.basf.com](http://www.agro.basf.com)
The Verbund
Energy efficiency thanks to the Production Verbund

The Verbund is more than just a concept. It helps BASF to make efficient use of resources and gain competitive advantages. The Ludwigshafen site, headquarters of BASF, is the largest of six Verbund sites around the world.

An intelligent network
In the BASF Verbund, production facilities, energy flow, logistics and infrastructure are intelligently linked. Within this system, chemical processes can take place with low energy inputs and high yields, conserving resources in the process. By-products from one factory can be used as starting materials elsewhere. This system allows us to save resources and energy, minimize emissions, cut logistics costs and utilize synergies within our infrastructure. The Verbund results in efficient value chains – from basic chemicals through to high value-added products.

Energy Verbund reduces carbon emissions
The Energy Verbund allows us to reduce emissions of CO₂ because crude oil and natural gas are used as raw materials as well as sources of energy. Furthermore, heat from production processes in one plant is converted into steam directly on site and fed into BASF’s steam network, and is then available for other production plants to use as energy. This process of heat integration is consistently implemented at all of BASF’s major sites. BASF meets around 50% of its demand for steam at the Ludwigshafen site from its own production operations.

For more information, see basf.com/verbund_e

Efficient cogeneration conserves resources
Cogeneration technology enables fuels to be used much more efficiently than if steam and electricity were generated separately. Since the two cogeneration power plants in the southern and central sections of the site were started up in 1997 and 2005, BASF has lowered its mean annual purchases of externally generated electricity (which is usually only generated with an efficiency factor of 35% to 40%) down to zero.
Production Verbund

Naphtha is turned into baby diapers and adhesives

Products from one plant are used as starting materials at the next plant – this is the idea behind the Production Verbund. For example, the acrylic acid value chain produces superabsorbents (the active component in hygiene products) and dispersions, which form the basis for adhesives.

1st stage: Propylene obtained from the steam cracker

The two steam crackers at the Ludwigshafen site are the starting point. They crack naphtha into basic chemicals such as ethylene and propylene, which are the starting materials for many of BASF’s products. The production process for superabsorbents and adhesives also starts in the steam cracker. Using steam heated to temperatures of more than 800°C (1,472°F), one of the products produced from naphtha is propylene, the precursor to acrylic acid.

2nd stage: Propylene is turned into acrylic acid

Propylene from the steam cracker travels via pipelines into one of two acrylic acid factories, where it undergoes reactions to form crude acrylic acid. The acrylic acid plants are extremely productive: In one hour they produce enough acrylic acid to renovate 1,000 apartments, as emulsion paint, or as dispersions, for a million square meters of paper labels.

3rd stage: Pure acrylic acid and acrylic esters

The crude acrylic acid is pumped via pipelines into one of four acrylic ester factories. These then produce pure acrylic acid, a precursor in the superabsorbent value chain, as well as acrylic esters – the next step in the process of producing adhesives.

4th stage: The paths separate

The paths that ultimately lead to superabsorbents and adhesives now diverge. The acrylic acid, which is destined to become superabsorbents is transported to the Friesenheim Island part of the plant. Here it is processed into sodium acrylate, which is then used in the Hysorb factory to produce superabsorbents in the form of white granules. These granules are the active ingredients in hygiene products such as baby diapers because they can absorb many times their own weight in liquid.

The acrylic ester which will later be used in adhesives remains in the Ludwigshafen plant and is moved to the dispersions factory and to the specialties factory. Here, individual acrylic ester molecules are linked to produce long molecule chains, known as polymers. In water, the polymer particles form a dispersion which acts as the basis for a wide range of different products: BASF’s dispersions are found not only in adhesive applications such as labels and tape, but also in paper, coating materials, construction materials and in fiber bonding.

From naphtha to diapers and adhesives

In BASF’s Production Verbund, a process starting with naphtha and involving several stages ultimately produces products such as superabsorbents and dispersions.
Energy and Logistics Verbund

Efficient use of energy and intelligent coordination of logistics are also major benefits of BASF’s Verbund structure. An extensive network of roads, railway tracks and above-ground pipelines ensures plants receive an efficient supply of raw materials and energy.

Energy Verbund uses steam
Steam is one of the most important sources of energy for chemical production. The waste heat produced in chemical processes is converted into steam and made available to other facilities via pipelines – this is also the case with the production of acrylic acid as part of the acrylic acid value chain. When manufacturing acrylic acid, the two factories at the Ludwigshafen site produce three to four times more steam than their main product, acrylic acid: When propylene reacts to produce acrylic acid, it releases a large amount of heat. To ensure that the temperature remains constant throughout the reaction, the reactor is flushed with water. The cooling water heats up, creating steam, but only some of this steam is used for acrylic acid distillation. The majority of it is fed into BASF’s steam network and is then available as a key source of energy to other plants. Roughly 50% of the steam required is generated by plants on site; the two acrylic acid plants alone account for 10%. The other 50% of steam required comes from power plants. By making constant improvements to the Energy Verbund and consistently expanding our supply of energy from combined heat and power plants, we make a substantial contribution to reducing energy-related CO₂ emissions.

Logistics Verbund shortens distances
Raw materials and feedstocks are supplied in large quantities by pipeline or ship and arrive at their specific facilities at the Ludwigshafen site via our three ports, two tank storage facilities and extensive network of pipelines. “Short distances” is the key aim with internal consignments moved by road and rail. They are coordinated via a control system to minimize distances and ensure that no vehicles travel empty. Rail plays a major role because it is an environmentally friendly mode of transport. Ludwigshafen and the Rhine-Neckar Metropolitan Region are important transshipment points in European intermodal transport. In the fall of 2012, the third construction phase of the intermodal transportation terminal began operations. This facility is located within BASF’s site but is publicly accessible. When operating at full capacity, it allows a further 100,000 containers from the metropolitan region to be transported by rail rather than by truck to destinations within Europe. This results in a reduction of carbon emissions by approximately 50,000 metric tons per year. The transshipment facility comprises 260,000 square meters, equivalent to around 40 soccer fields.

Block trains save energy and costs
Block trains – freight trains that travel from their starting point to their destination station without making any stops – run several times a week between the Ludwigshafen and Schwarzheide sites as well as between Ludwigshafen and Antwerp. Compared to transport by trucks, this saves energy and reduces CO₂ emissions by around 15,000 metric tons per year. There are also synergy effects with truck and overseas transports. Shipments are planned and combined centrally, so that only well-laden trucks and containers are dispatched. We also make use of Verbund effects when it comes to storage and filling. A large number of plant facilities have their products filled into containers and packaged centrally.
Know-how Verbund
Researching tomorrow’s innovations

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.

Pooled knowledge
The central research areas Advanced Materials & Systems Research, Biological & Effect Systems Research, Process Research & Chemical Engineering, and BASF Plant Science are our knowledge and competence centers. Together with the development units in our operating divisions as well as BASF New Business and BASF Venture Capital, they form the core of our global Know-How Verbund. In 2013, around 10,650 employees were engaged in research and development worldwide with about 5,300 employees working at BASF SE’s Ludwigshafen site.

Innovations based on chemistry require market-focused research and development that is focused on the needs of our customers. In order to bring promising research ideas even faster to market, we regularly assess our projects according to a multistep innovation chain process. BASF New Business plays a particular role in the search for new business areas. It identifies trends and future markets at an early stage, turning attractive topics beyond existing business activities into growth fields.

Another vital factor for our success is a global research and development presence at approximately 70 locations around the world. In 2013, we continued to expand our activities in North America and Asia. The Ludwigshafen site will continue to be the hub of our global Know-How Verbund in the future.

Global network
Our global network with more than 600 excellent universities, research institutes and companies is also an important part of our Know-How Verbund. We cooperate with them in many different disciplines in order to achieve our ambitious growth goals. One way to measure a company’s innovative power is by the number and quality of its patents. 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.

Regional cooperative partnerships
In the immediate vicinity of the Ludwigshafen site, we collaborate with various institutions, including the Universities of Heidelberg and Karlsruhe. In the Catalysis Research Laboratory (CaRLa) in Heidelberg, for example, we conduct cutting-edge catalysis research with a team of international scientists. At the laboratory BELLA (Battery and Electrochemistry Laboratory) jointly operated with the Karlsruhe Institute of Technology (KIT), we research innovative materials and functional components for the battery technology of today and tomorrow.

For more information, see basf.com/research

Current research examples
Material researchers at BASF are working, among other things, on a new kind of membrane material for a more efficient preparation of drinking water as well as process, surface, ground, and spring water. In 2013, we completed the start up of a further pilot plant to be able to test the performance of these materials under real conditions. Our researchers are also working on innovative battery materials. High performance and affordable lithium-ion batteries are prerequisites for a sustainable mobility concept such as electromobility. Thanks to a newly erected dry room laboratory, the air and moisture sensitive test cells can be produced quicker and in greater quantities in the future.
Strategic Areas
Overview

In 2050, around nine billion people will live on this planet. On the one hand, this population growth is associated with enormous global challenges but we also see many opportunities, especially for the chemical industry. We expect the chemical industry to grow particularly strongly in the emerging economies, and that 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 and climate
Dramatically 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 and nutrition
A growing world population obviously needs correspondingly 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.

BASF’s products and solutions contribute to conserving resources, ensuring nutrition, and improving quality of life.

We create chemistry for a sustainable future
We combine economic success, social responsibility and environmental protection. Through science and innovation, we enable our customers in almost all industries to meet the current and future needs of society.
Coal, crude oil and natural gas – fossil resources will continue to serve as important energy sources in the future. However, they will not be available indefinitely. It is necessary to use them sparingly, as well as to seek alternatives. That is why, for selected processes, BASF employs biomass that can be used for producing chemicals and generating electricity and steam. Even today, we already make a diverse range of products out of renewable resources.

How sugar can become a swimsuit
Whether wood, straw or agricultural waste – plant cell walls contain the polysaccharide cellulose, a valuable renewable resource. Cellulose is the largest organic raw material source on Earth. It is created through photosynthesis – a natural process through which plants use the sun’s energy to transform carbon dioxide and water into sugar compounds. And yet specialized processes are needed to obtain sugar components from cellulose for use as a renewable raw material. BASF is testing American company Renmatix’s Plantrose™ Process. This multi-step process splits nonedible biomass into different industrial sugars. In the future, these could serve as important raw materials for the production of many basic and intermediate chemical products.

One application is for the production of the intermediate 1,4-butanediol, for example. The process patented by the American company Genomatica enabled BASF to, for the first time, produce commercial volumes of butanediol from industrial sugar in 2013. 1,4-butanediol is already used as a raw material for many of the everyday products we use today – such as plastics for skateboard wheels and elastic fibers for textiles. This means even a swimsuit could be based on renewable raw materials in the future.

Resources, environment and climate
Renewable resources: future alternatives

From biomass to everyday product
Another opportunity to use renewable resources in the existing BASF Production Verbund is through the “mass balance method.” This process allows biomass to be used instead of fossil resources as a raw material at the beginning of the value chain, and then be later assigned to the respective sales product. The advantage for customers is that product formulation and quality remain unchanged. BASF is supplying the first of such products – dispersions for construction adhesives – to a major manufacturer in adhesives whose products include flooring adhesives for the construction industry.

Even baby diapers could be bio-based in the future: Together with the companies Cargill and Novozymes, BASF is developing a technology to produce acrylic acid from renewable raw materials. Through this collaboration, trial amounts of 3-hydroxypropionic acid have been in production since 2013 – an important raw material in the bio-based sodium acrylate production chain, which is in turn used to produce superabsorbents. These can soak up large amounts of liquid and are therefore an important component for baby diapers and other hygiene products. With bio-based baby diapers, diaper manufacturers will be able to address consumers’ increasing awareness of sustainability.

BASF’s multifaceted product portfolio already offers numerous materials based on renewable raw materials today. In the personal care business, for example, Plantaquat® NC represents a new solution for hair conditioners that is based exclusively on renewable and biodegradable raw materials. As a combination emulsifier, stabilizing agent and conditioner, it effectively guards the hair against breakage and reduces split ends.

Sugar – a valuable raw material

Industrial sugars obtained from the cellulose of inedible biomass can serve as important feedstock for many basic and intermediate chemical products – for example, for the intermediate 1,4-butanediol.
Food and nutrition
Crop protection: intelligent solutions for secure yields

A growing world population demands a lot from agriculture. The Earth’s surface may comprise around 13 billion hectares – but the capacities of arable land are limited. An environmentally friendly and resource-saving approach helps to ensure enough food for the world’s population. BASF meets this challenge by developing crop protection products and fostering responsible agriculture.

Improving plant health
Weeds, pests, disease – many external factors can damage crops and impair the harvest. One of the most destructive soybean diseases is Asian soybean rust – a fungal infection that reduces farmers’ crop yields. Farmers have recently been able to turn to BASF’s fungicide Xemium to combat this fungal disease. Xemium is applied directly to the seeds and, from there, distributed throughout the entire plant as the plant grows. Small amounts are enough to ensure long-lasting protection.

For more information, see basf.com/xemium

Rice is a main food source for a large percentage of the world’s population, and thus one of the most important crops of all. “Red rice,” a type of wild grass, can cause considerable harvest losses in rice cultivation. BASF’s Clearfield Production System provides a solution: It combines a broadband herbicide with Clearfield technology’s nontransgenic, herbicide-tolerant seeds, which can result in up to three times greater rice yields.

For more information, see basf.com/clearfield

Promoting responsible agriculture
BASF develops product solutions and supports its customers in their application. The company provides them with training in the safe and environmentally conscious use of crop protection products.

For example, BASF’s Samruddhi initiative has supported smallholder soybean farms in India since 2006. “Samruddhi” means “success” in the ancient Indian language Sanskrit. The project’s goal is to improve economic conditions for Indian farmers. BASF agronomists work together with farmers to show how they can secure reliable yields in the long term under fluctuating climatic conditions by protecting the plants from pests and disease.

For more information, see basf.com/samruddhi

BASF also launched AgBalance in India in 2013. With this method, farms can be evaluated in terms of ecological, economic and social indicators along the entire value chain and potential for improvement can be identified. Farmers can thus improve their sustainability profile. Emissions and energy use also play a role, as do considerations of cost, future generations and consumers.

For more information, see basf.com/agbalance

Securing the world’s food sources
Ensuring enough food for a growing world population is one of the major challenges of sustainable development. BASF helps to meet this challenge by developing and producing innovative solutions to improve crop health and yields.
Quality of life
Everyday chemistry: innovations that make life easier

Whether enjoying a cup of coffee, doing the laundry or getting some exercise – BASF’s innovations can be found in many of the products we use throughout the day. They make day-to-day tasks easier, and, thanks to their special chemical composition, often even provide a more environmentally friendly alternative to conventional products.

Coffee capsules made of compostable plastic
In many households, the day begins with a cup of coffee. When time in the morning is limited, this is often accomplished through a simple coffee capsule and the push of a button. Together with the Swiss Coffee Company, BASF has developed an innovative coffee capsule. What makes it so special? The coffee grounds’ high-quality roast aromas are sealed into an entirely compostable package. Instead of aluminum, the packaging is made of BASF’s biodegradable ecovio® plastic, which is predominantly based on renewable raw materials. This means that both coffee grounds and packaging can be discarded into the compost heap.

For more information, see basf.com/ecovio_e

Special polymers make laundry detergent more environmentally friendly
Freshly washed laundry should smell good, the colors should look bright, and, above all, the material should be stain-free. This usually takes a lot of water, energy and resources, putting a strain on the environment and climate. To combat this, BASF offers a wide array of highly efficient and environmentally friendly ingredients for detergents and cleaners. For example, BASF has developed special polymers under the brand name Sokalan® that enable the production of highly concentrated detergents. The active ingredients are effective in small doses, even working in low temperatures to ensure clean laundry. At the same time, the reduced consumption of resources helps protect the environment.

For more information, see basf.com/sokalan_e

More energy and fun while jogging
To keep physically fit, more and more people are going for a jog. You can run almost anywhere – all you need are comfortable clothes and the right pair of shoes. These should be selected carefully. A good shoe is comfortable and makes exercise even more fun. Together with adidas, BASF developed the Energy Boost™ shoe, which combines comfort with top running properties. The shoe’s midsole is made up of around 2,500 extremely bouncy foam beads: BASF’s Infinergy® foam. The special properties of this expanded thermoplastic polyurethane are exhibited particularly well in running: For one thing, the highly elastic material absorbs the shock of the foot’s impact. For another, it demonstrates outstanding resilience. After being compressed, the foam springs instantly back into its original shape and sends the impact energy back to the runner.

With the Energy Boost™ running shoe, the impact energy is largely returned to the athlete.

For more information, see basf.com/infinergy_e

Improving quality of life
People around the globe aspire to enhance their individual quality of life. Innovations based on chemistry play a key role here, for they provide a critical contribution beyond known solutions.
Environment, Health and Safety

We act responsibly

We want to contribute to a sustainable future and have embedded this into our corporate purpose: “We create chemistry for a sustainable future.” Environmental protection, health and safety are part of BASF’s corporate values and our global goals – all supported by employees, who act with a sense of responsibility. We participate in the chemical industry’s voluntary Responsible Care initiative.

Accident figures continue to be low

We never compromise on safety. We have made this commitment in our strategy and have made significant achievements as a result of our high standards. The number of work-related accidents at BASF SE in Ludwigshafen in 2012 decreased compared with the previous year (down by 16% over 2012). This is equivalent to a rate of 2.7 work-related accidents per million hours worked (2012: 3.2). The rate of work-related accidents among external contractors working at our site was 3.4 (2012: 4.3). There were no fatal accidents at BASF SE in 2013.

With our safety initiative we continued to raise safety awareness among our managers, employees and contractors worldwide in 2013. They all contributed to improving conditions in order to minimize risks. As part of this initiative, we developed a tool with great relevance to everyday work called the Safety Performance Profile. Managers and employees work together to define measures to continuously improve occupational safety.

Successful health management

Since 1866, BASF has offered its employees occupational medical advice and health-related services. The Occupational Medicine and Health Protection Department is responsible for the management of the occupational health of BASF employees, the management of medical emergencies at the BASF Ludwigshafen site, and the coordination and auditing of occupational medicine in BASF group companies worldwide. It offers employees comprehensive medical services from occupational medicine and emergency medicine to health promotion.

BASF’s Health Promotion Program (HPP) is made up of three elements: The foundation is the Global Health Check (GHC), which was introduced worldwide in 2013, and is offered at regular intervals. It is supplemented by a global health campaign on a different topic each year and the health promotion health promotion services at the BASF sites. About 15,000 employees took advantage of the health check at the Ludwigshafen site during the introductory phase from 2011 to 2013. Employees may take the health check every three years.

Site security ensures smooth workflow

Our site security makes sure that everything runs smoothly with regard to the protection of people and road safety. Their expert knowledge is invaluable, particularly in the case of large projects such as the TDI plant: during peak periods, several thousand contractors work on the construction of the complex as well as the upstream and downstream plants in the Verbund. In 2013, we set up a second Security Access Office adjacent to the water treatment plant to ensure a smooth workflow. The new Security Access Office North issues identification badges to authorities, contractors, leasing partners and site partners upon successful completion of a safety test. This ensures that they are informed about the current rules of safety and conduct for the site and contribute to even greater safety when working on the site.

100 years of fire protection service

Rescuing, recovering, extinguishing, protecting – BASF’s plant fire department has been carrying out these tasks for 100 years. In the beginning it started out with tight resources and limited staff. Over the last decades, it has developed into a highly professional specialists unit, which not only operates in Ludwigshafen but also consults and offers support with its expert knowledge far beyond the boundaries of the site.

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1 Figure differs from Report 2012 (4.4) as a result of intra-year correction due to changes in categorization.
Climate protection and eco-efficiency
Solutions for sustainable development

Conserving resources is a basic principle of the way we do business. We invest roughly one-third of our research and development expenditures in projects aimed at boosting energy efficiency and climate protection.

Climate protection and energy efficiency goals
By 2020, we want to improve the energy efficiency of our production processes by 35% compared with 2002. We were able to achieve an increase of 19.8% by 2013 within BASF Group – mainly through the use of power plants powered by cogeneration technology, the Energy Verbund and numerous individual projects. A certified energy management system (ISO 50001) was introduced at the Ludwigshafen site in October 2012.

Increasing energy efficiency makes an important contribution to reducing our greenhouse gas emissions per metric ton of sales product. By 2020, we want to achieve a reduction of 40% compared with 2002. As of 2013, we had already reduced our emissions by 34%.

Eco-Efficiency Analyses deliver advantages
Reconciling the demands of the economy and the environment is one of the objectives of sustainable development. In 1996, we co-developed a holistic evaluation methodology known as Eco-Efficiency Analysis. This method has also been certified by TÜV Rheinland and the U.S. organization NSF (National Sanitation Foundation). We have performed more than 500 of these analyses to date. When an analysis is carried out, the entire life cycle of a product or process is scrutinized with respect to all key environmental effects in accordance with ISO 14040 and 14044 and now in accordance with ISO 14045, which was published in 2012.

Furthermore, the evaluation includes economic factors relating to the life cycle. Among other things, the Eco-Efficiency Analysis can help to improve products by using a holistic approach.

Our customers use the Eco-Efficiency Analysis as a marketing feature. In line with the three pillars of sustainability (economy, environment, social responsibility), BASF also developed the Socio-Eco-Efficiency Analysis (SEEBALANCE®). This analysis provides a holistic assessment of the environmental impact and associated costs as well as the relevant social effects of products and production processes. Based on this we developed AgBalance™, which also considers indicators specific to the agriculture and nutrition sectors and presents these in an integrated way.

For more information, see
basf.com/climate_protection
basf.com/resource_conservation
basf.com/eco-efficiency

Greenhouse gas emissions along BASF’s value chain in 2013¹
(in million metric tons of CO₂ equivalents)

<table>
<thead>
<tr>
<th>Level</th>
<th>Category</th>
<th>Emissions (million metric tons of CO₂ equivalents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 BASF</td>
<td>Production including generation of steam and electricity</td>
<td>246</td>
</tr>
<tr>
<td>15 Disposal</td>
<td>Incineration with energy recovery, landfilling (C 12)</td>
<td>31</td>
</tr>
<tr>
<td>54 Suppliers</td>
<td>Purchased products, services and capital goods (C 1, 2, 3a)</td>
<td>7</td>
</tr>
<tr>
<td>4 Transport</td>
<td>Transport of products, employees commuting and business travel (C 4, 6, 7, 9)</td>
<td>7</td>
</tr>
<tr>
<td>51 Customers</td>
<td>Emissions from the use of end products (C 11)</td>
<td>7</td>
</tr>
<tr>
<td>2 Other</td>
<td>(C 3b, 3c, 5, 6, 13, 15)</td>
<td>9</td>
</tr>
</tbody>
</table>

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

Prevention of greenhouse gas emissions through the use of BASF products by sector (in million metric tons of CO₂ equivalents)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Emissions (million metric tons of CO₂ equivalents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Housing and construction</td>
<td>246</td>
</tr>
<tr>
<td>2 Industry</td>
<td>31</td>
</tr>
<tr>
<td>3 Transport</td>
<td>7</td>
</tr>
<tr>
<td>4 Agriculture</td>
<td>7</td>
</tr>
<tr>
<td>5 Other</td>
<td>9</td>
</tr>
</tbody>
</table>

BASF combined heat and power plants in Ludwigshafen
Environment
Facts and figures

Energy consumption, water, air and soil – BASF SE believes in responsible interaction with the environment. This is the only way to ensure long-term growth that will enhance the company’s value.

Energy footprint
Electricity and steam are produced on-site primarily through the use of power plant facilities that operate year-round on the combined heat and power (CHP) principle. These highly efficient facilities make use of almost 90% of their fuels. By utilizing the waste heat produced in the Energy Verbund, we reduce the primary energy demand at the Ludwigshafen site by around one-third. In 2013, BASF SE’s energy demand was 18.7 million metric tons of process steam (2012: 18.6 million metric tons) and 6.2 million MWh of electricity (2012: 6.2 million MWh). The Ludwigshafen site was able to generate nearly 100% of the electricity it used in 2013 with its own generating capacity.

Energy consumption 2013

<table>
<thead>
<tr>
<th></th>
<th>Energy consumption 2013</th>
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</thead>
<tbody>
<tr>
<td><strong>Electricity</strong> (in MWh)</td>
<td>6,236,520</td>
</tr>
<tr>
<td><strong>Process steam</strong> (in metric tons)</td>
<td>18,673,109</td>
</tr>
<tr>
<td><strong>Fuels power plants</strong> (in MWh)</td>
<td>15,920,170</td>
</tr>
</tbody>
</table>

Water use
In 2013, BASF SE used around 1,248 million cubic meters of water (2012: 1,420 million cubic meters). We obtained 98.4% of our water supply from the Rhine River. Groundwater accounted for 2% and drinking water for 0.1%. The water from the Rhine is mainly used for cooling in closed pipeline systems and is returned to the river without being polluted. Internal cooling circuits allow the water to be utilized more than once. In 2013, the total amount of water used for production was around 142 million cubic meters (2012: 137 million cubic meters) and for closed-circuit and flow cooling, the total amount used was about 1,176 million cubic meters (2012: 1,264 million cubic meters). Closed-circuit cooling water does not get depleted and therefore does not need to be extracted regularly from natural sources. We send contaminated production water, as well as wastewater from the cities of Ludwigshafen and Frankenthal and the communities of Bobenheim-Roxheim, Mutterstadt and Altrip, to BASF’s own wastewater treatment plant for purification.

Emissions to water
Some 6,500 metric tons of organic substances – calculated as chemical oxygen demand (COD) – were emitted to water in 2013 (2012: 6,080 metric tons). Nitrogen emissions to water (N total) from the wastewater treatment plant amounted to 1,230 metric tons (2012: 1,110 metric tons). Heavy metals are largely collected in the sludge at the wastewater treatment plant. When the sludge is incinerated, they remain in the residue and are then sent to landfill. Volatile matter is removed via scrubbing treatments and then specially treated. In 2013, 14 metric tons of heavy metals (2012: 16 metric tons) were released from the wastewater treatment plant.

<table>
<thead>
<tr>
<th></th>
<th>Emissions to water (chemical oxygen demand) (in metric tons per year)</th>
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<tbody>
<tr>
<td><strong>2013</strong></td>
<td>6,500</td>
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<tr>
<td><strong>2012</strong></td>
<td>6,080</td>
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<table>
<thead>
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<th>Emissions to water (heavy metals) (in tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2013</strong></td>
<td>14</td>
</tr>
<tr>
<td><strong>2012</strong></td>
<td>16</td>
</tr>
</tbody>
</table>
Emissions to air
In 2013, BASF SE’s emissions to air consisted of 7,874 metric tons of pollutants excluding methane (2012: 7,793 metric tons). Emissions data are collected according to a standard method throughout the BASF Group and evaluated using a global database.

Greenhouse gas emissions
We have been performing measures such as those for the reduction of nitrous oxide in our production since as early as 1997. These have been implemented to a large extent, along with our major projects for the efficient generation and use of steam and electricity. Comparisons with European emissions trading benchmarks show that our chemical plants operate at above-average efficiency.

In 2013, BASF SE emitted around 7.5 million metric tons of greenhouse gases, calculated as CO₂ equivalents (2012: around 7.5 million metric tons). Since 1990, we have been able to lower our greenhouse gas emissions from BASF operations worldwide (excluding Oil & Gas) by 48% and reduce specific emissions by 74% overall.

<table>
<thead>
<tr>
<th>Emissions to air (excluding CH₄) (in metric tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
</tr>
<tr>
<td>2012</td>
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</tbody>
</table>

Waste
BASF’s fundamental principles for handling waste are “avoid, reduce, recycle.” We only dispose of waste after all recovery options have been exhausted, and we do so in a correct and environmentally compatible manner. In 2013, BASF SE produced 915,833 metric tons of waste (2012: 742,639 metric tons). This includes production waste, commercial waste similar to household waste, and sludge, but not non-hazardous construction waste or untreated wastewater. A considerable volume of this waste was incinerated in 2013 at BASF SE’s energy-generating waste incineration plant.

The volume of waste recycled at the Ludwigshafen site in 2013 amounted to 203,690 metric tons (2012: 422,861 metric tons), representing an overall recycling rate of 22%³ (2012: 57%). The decline in the recycling rate is mainly due to the increase in construction waste that is generally not recyclable. Another 30%³ (2012: 5%) was incinerated and the remaining 47%³ (2012: 38%) was sent to landfill. Recyclable materials are collected by the site’s own system, with over 330 collection points for sorted materials located throughout the Ludwigshafen premises. Ash produced from sludge incineration is sent to landfill.

<table>
<thead>
<tr>
<th>Waste (in metric tons/year)</th>
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<tbody>
<tr>
<td>2013</td>
</tr>
<tr>
<td>2012</td>
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</table>

³ Summing the individual values only gives a total of 99% due to the effects of rounding.
BASF as an Employer
What we do for our employees

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

Embracing diversity
At the end of 2013, 39,211 people were working at the Ludwigshafen site (2012: 38,821). BASF SE, the largest company at the site, employed 35,411 people (2012: 34,769). Production facilities employed around one-quarter of the employees while technical units account for approximately one-fifth of the staff. There were also 2,824 apprentices training for their future careers (2012: 2,711), of whom 1,869 were at BASF SE (2012: 1,601), 839 were in the BASF Training Verbund (2012: 994) and 116 at other Group companies at the site (2012: 116). Internationally is another hallmark of our company. Employees from around 90 different countries (as of December 31, 2013) create true cultural diversity at BASF SE. The largest groups come from Turkey, Italy and France.

For more information, see basf.com/career and www.facebook.com/basfcareer

Investing in the future
Key elements of the 2015 site agreement include a no-redundancy pledge, investments in modernization, research and development as well as a package of measures to enhance the flexibility of HR systems and a commitment to vocational training on a long-term basis. Strong emphasis is also placed on expanding our health management programs.

Demographic management safeguards the future
Demographic change presents great challenges to our human resources work. By 2020, one in two employees at the Ludwigshafen site will be older than 50. We are therefore creating conditions that will help our employees continue to work during all phases of their lives. These include health and sports programs, age-appropriate optimization of the workplace, childcare and flexible working time models. Furthermore, we encourage life-long learning among our employees and the exchange of knowledge between generations.

BASF Stiftung
BASF Stiftung helps people in need in many ways. The BASF Stiftung is the support organization for the company’s social assistance service, which has been operating for 90 years. It offers services ranging from counseling during personal crises and times of psychological distress to advice on caring for relatives and debt management, as well as addiction-related preventive measures. At the same time, BASF Stiftung supports international projects in cooperation with U.N. organizations and NGOs operating worldwide. In 2013, the company and its employees participated in BASF Stiftung’s end-of-year donation campaign to support educational projects of UNICEF, the United Nation’s Children’s Fund, to aid Syrian refugee children. The donations also enabled Syrian refugee children to attend schools in neighboring host countries. The UN organization has set up additional classes, provides psycho-social support for traumatized children and distributes shoes, backpacks, exercise books and pens. All these efforts ensure better educational opportunities for the children.

For more information, see basf.com/international_donations

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

BASF stands for cultural diversity.
Vocational training and employee development

Acquiring, broadening and sharing knowledge

A company is only as good as its employees. Therefore, solid vocational training and regular professional development for every employee are important.

Increasing demand for qualified specialists
There is strong demand for highly-skilled workers in production and technical areas at the Ludwigshafen site. In the coming years, this demand will rise as many employees retire.

BASF therefore increased the number of vocational training positions at the Ludwigshafen site once again in 2013. At the beginning of the vocational training program, 1,000 young people started their vocational training at BASF: 750 directly at the BASF Ludwigshafen site and 250 as part of the “Start in den Beruf” and “Anlauf zur Ausbildung” programs of the BASF Training Verbund. Since September 2013, the BASF Training Verbund has been realigned; in the future, in cooperation with partner organizations, we will focus our efforts on supporting young people who are not yet ready to begin apprenticeships and on targeted career orientation.

In September 2013, 20 Spanish apprentices began their vocational training as process operators in Tarragona, Spain, based on the German vocational training model. This qualification is comparable to the German chemical technician apprenticeship. Theoretical and practical phases will take place in Tarragona and in Ludwigshafen. After the successful completion of their training, we plan to employ these apprentices in production plants at the Ludwigshafen site.

After successfully passing their final examinations, 97% of the apprentices at BASF SE received a job offer in 2013.

For more information, see basf.com/apprenticeship

Further training and development
Further training ensures our future. That is the reason why a systematic, standardized and practical concept for professional development has been designed for our production system. Manageable learning units (learning assignments), a qualification matrix as well as support by technical coaches and company trainers are the key features of the concept. It is designed to motivate employees and stir their interest in different topics. Employees take responsibility for their own further development. The system has proven itself in practice. Our in-plant qualification has so far been introduced in 75 plant clusters and over 620 in-plant trainers have been trained.

BASF’s Learning Center in Ludwigshafen offers employees a wide variety of media for lending, seminar rooms, rooms for learning groups and self-learning as well as an extensive range of two-to-three hour workshops or so-called learning events on job-related topics. Consultation services, such as personal career orientation, help employees plan the next steps in their development. Furthermore, seminars and e-learning are also included in our further education program. A total of more than 108,000 seminar days took place at BASF SE.

Personnel development
The further training of our employees is an investment in BASF’s future success. Therefore, systematic and targeted employee development is a top priority in the company worldwide. All of our employees should have the opportunity to develop in line with their skills and strengths. In development dialogs, our employees and leaders outline the prospects together for individual professional development and determine concrete measures for further training and development. In 2013, about 4,300 employees and managers received appropriate information and training in Ludwigshafen.

Diverse range of options for trainees
In 2013, 1,000 young people began their vocational training at BASF’s site in Ludwigshafen and in BASF’s Training Verbund. Applicants were able to choose from around 40 different training occupations in the laboratory, production, metalworking, electrics, IT, and catering as well as business-related occupations, dual work-study degree programs and starter programs.

One thousand young people began their vocational training at BASF in 2013.
Work-life management
Everything under one roof

As a responsible employer, BASF helps its employees to better combine career and family; striking a good balance between these areas is crucial to our employees’ satisfaction and performance, which is equally beneficial to both the employees and the company.

We offer our employees solutions that are targeted to their specific needs in their current life situations. We offer flexible work models, for example, which allow employees to adapt their working time to the demands of their private life, for example, or to complete some of their work from home with the agreement of their bosses.

New Center for Work-Life Management
In November 2013, the Center for Work-Life Management for our employees LuMit was opened after a 15-month construction period. Located close to the site and with a total area of 10,000 square meters, numerous services relating to work-life balance, sports and health promotion as well as social counseling were brought together under one roof and further expanded.

LuKids – Childcare
As part of the new construction, LuKids, the BASF daycare center for children between the ages of six months and three years, has been expanded to accommodate 250 children of our employees. We have also expanded the program for temporary care of children, LuKids adhoc, which can now look after 15 children between the ages of 6 months and 11 years. We also make it easier for parents to combine work and family life during the school holidays by offering children of our employees between the ages of 6 and 14 a wide selection of vacation programs. In 2013, about 1,200 children and young people participated in our programs Kids on Tour and Teens on Tour.

LuFit – Sports and Health Promotion
A modern health and fitness facility for about 2,500 users was built as part of the new center for Work-Life Management LuMit. In addition to extensive exercise options, a revitalizing relaxation area and a program of health-related courses and seminars, it will also offer medical consultation and physiotherapy services.

LuCare – Social Counseling
The social counseling services of the BASF Social Foundation offer employees facing work-related and private difficulties individual counseling, support and assistance. The support covers all areas from illness and crisis situations to debt management and nursing care. LuCare works together with experts both internally and externally.

For more information, see basf.com/worklife_balance

New forms of housing
BASF’s housing company LUWOGE has created a new project called “BASF Business Apartment Sharing” to meet the rising demand from new BASF employees for flexible housing near the site. The shared accommodation offers a furnished room with wireless internet access for each tenant as well as a shared kitchen, two bathrooms and a washing machine. The shared living space serves as a meeting place and communication zone for the residents. With this new form of housing, LUWOGE wants to make it easier for new employees to start their new jobs at the Ludwigshafen site.

Employee Center for Work-Life Management
The new Center for Work-Life Management has been built just outside the site’s gates. This modern building complex is being built by LUWOGE, with LUWOGE consult serving as the general contractor. They have developed a holistic building concept in accordance with BASF’s sustainable building directive. The new center was opened in November 2013.
Health promotion and sports
Keeping healthy, as individuals and as team players

Our employees’ health matters to us. The rising retirement age and increasing work-related demands create a need for new health promotion programs and services. This is why a holistic program for sports and health promotion is an established part of BASF’s corporate culture.

BASF employees keep fit
BASF SE offers around 160 fitness courses, ranging from aerobics to relaxation and running. Every year, more than 300 teams of employees compete to become the champions in sports such as soccer, volleyball and badminton. This creates bonds between the employees and strengthens the overall sense of community.

Another key element is the program of the Health Team, formally run by the BASF Health Promotion Center, which offers 100 additional health courses, workshops, presentations and advisory services. As part of BASF’s demographic management, occup

Health promotion seminars
In 2013, we once again offered two-day health seminars for exempt employees and managers. The topics relating to personal health and work-life management were specifically tailored to this target group. In addition to general health information, this seminar also explored how employees and managers can develop protective mechanisms to promote and preserve health. This seminar, attended by around 400 employees each year, contains useful tips that can be applied in everyday work life as well as on business trips. All participants are offered a comprehensive health check-up in advance.

Health promotion seminars
BASF offers health promotion seminars in Breitnau, in the Black Forest. More than 1,200 employees took part in the 17 seminars offered in 2013. The content and success criteria of these seminars are coordinated by the BASF Health Promotion Center.
Social Commitment in the Region

Promoting science
Committed to building knowledge

As home to 22 institutes of higher education, the Rhine-Neckar Metropolitan Region is an excellent location for science and research. Various areas of specialty inspire each another and reveal the potential for creative solutions.

Marsilius Kolleg engages in interdisciplinary research
With the Marsilius Kolleg at the University of Heidelberg, which was established in 2008, we support dialog and cooperation among various learning cultures. By engaging in joint research projects, science scholars learn from humanities scholars and vice versa. The heart of the Marsilius Kolleg concept is interdisciplinary seminars given by lecturers from various academic disciplines. As a sponsor, BASF also supported events in 2013.

For more information, see www.marsilius-kolleg.uni-heidelberg.de

Junior Professional Management Program
The Junior Professional Management Program (JPM) at the Center for Science and Research Management in Speyer, Germany, is supported by BASF and is targeted at scientists and scientific managers who are increasingly taking on management roles. Junior managers can supplement their scientific expertise with courses focusing on strategy development, organizational and project management, leadership of employees, marketing or negotiating. In addition, managers from universities, research institutes and commercial companies act as their mentors.

For more information, see www.zwm-speyer.de/JPM.php

Heidelberg Forum of Molecular Catalysis honors promising researchers
The Heidelberg Forum of Molecular Catalysis is a symposium at the University of Heidelberg with a high-caliber line-up. Every two years, leading scientists from around the world gather to report on the latest findings in molecular catalysis, a key technology for the chemical industry. For the seventh time, BASF recognized an outstanding science researcher with the BASF Catalysis Award in 2013. This time the €10,000 prize was awarded to Professor Dr. Nicolai Cramer from École Polytechnique Fédérale (EPF) in Lausanne, Schweiz.

For more information, see www.uni-heidelberg.de, under the heading HFMC

BASF funds Deutschland scholarships
BASF SE funds a total of 200 of the German Ministry of Education and Research’s Deutschland scholarships. These scholarships are given to students studying science, engineering and business at several universities in Germany. Around half of the recipients are studying at universities located near the Ludwigshafen site. BASF not only provides financial support to the scholars: All recipients are invited to attend discussion events with BASF employees and take part in various workshops.

For more information, see www.deutschland-stipendium.de

BASF Catalysis Award 2013
Dr. Andreas Kreimeyer (right), Member of the Board of Executive Directors of BASF and Research Executive Director, presents the BASF Catalysis Award 2013 to Prof. Nicolai Cramer for his outstanding research contributions to catalytic processes in synthesis of biologically active molecules.
Commitment to education
Our promotion of science takes many forms

“Water is precious” shows elementary students how to use water resources responsibly.

Cause for celebration – “Young Researchers” state champion presents his research project.

Teens’ Lab – Upper-grade students experiment with fragrances.

Teachers at “Experimenting with H₂O & Co.”

“Water is Precious” project receives recognition from the UNESCO Commission in 2013

The German Commission for UNESCO recognized the “Water is Precious” project as an official project of the U.N. World Decade of Education for Sustainable Development. The BASF SE program is aimed at elementary school students in the third and fourth grades and their teachers. It is designed to raise awareness about the responsible use of water by having fun conducting experiments. Through various experiments and project tasks, elementary school children learn about the ecological, economic and social consequences of water consumption in a playful manner. Based on their own experience, they should be able to draw their own conclusions regarding their behavior.

For more information, see basf.de/schule/wasser-ist-kostbar
Commitment to education
From daycare to university

Education and science lie at the heart of BASF’s commitment to society. We support numerous projects from daycare through to university and are committed to encouraging the next generation of young talent so that the Rhine-Neckar European metropolitan region can enjoy first-rate educational facilities.

New projects for early childhood education
BASF started the “Action on Education” initiative in 2005. With its projects involving a number of organizations, it has become a key element in early childhood education in the Rhine-Neckar Metropolitan Region.

BASF expanded its commitment to early childhood education with the addition of two new model projects in 2013. They promote social skills and the mental health of children. In cooperation with the social service organization “Diakonisches Werk Pfalz” and the “Zentrum für Kinder- und Jugendforschung an der Evangelischen Hochschule Freiburg” we developed the “Kinder Stärken!” (Making Kids Strong!) project.

It centers on fostering the resilience and personality development of children, as social skills, self-awareness and the ability to solve problems can be encouraged at an early age. The ten participating daycare centers will be accompanied by various further training measures and coaching during the course of the entire project.

The “Treffpunkt Familienkita” (Meeting Point: Family Day Care Center) project – a joint project of the “Deutsche Kinder- und Jugendstiftung”, BASF and the City of Ludwigshafen on the Rhine – was also started in 2013. It aims to support children by involving the parents in the activities of the daycare institution. There are many opportunities for parents to participate in the daily activities of daycare life such as cooking and doing arts and crafts together, coffee get-togethers for the parents to share their experience, summer parties, local festivals, as well as family sports. The daycare centers adapt their offerings to the individual needs and wishes of the respective families. BASF is helping ten participating daycare centers in Ludwigshafen further develop their educational opportunities and care services.

In dialog with teachers and schoolchildren
A key aim of our commitment to education is to get children and young people excited about natural sciences. Each year, at the five Kids’ and Teens’ Labs at our Ludwigshafen site, more than 18,000 pupils from elementary through high school can try their hand at being researchers under expert supervision.

To intensify the level of dialogue between schools and industry, we also focus on elementary and high school teachers, providing them with practical knowledge and keeping them abreast of the latest scientific findings in continuing education courses.

For more information, see basf.de/schule

A talent for natural sciences
We want to discover talent for natural sciences in young people. Since 1966, BASF has therefore been championing the “Young Researchers” regional competition in the state of Rhineland-Palatinate, a competition for young people with an interest in science and engineering.

For particularly talented high school students from across Germany, we offer a two-week science summer academy featuring high-quality speakers, practical sessions in the laboratory and an exciting range of auxiliary events. In cooperation with the Mannheim Rhine-Neckar Youth Academy, we also support talent from across the region. In addition, we present the BASF Prize to students from the region who have achieved excellent results in their final high school chemistry exams.
Social Commitment in the Region

We promote sports and culture

Ludwigshafen is situated in the heart of the Rhine-Neckar European metropolitan region. As the biggest employer in the region, BASF’s success is closely linked to regional growth. Adopting a future-oriented corporate policy means taking on social responsibility.

That is why we support projects related to education, science, social activities, sports and culture. Hundreds of thousands of people attended events that we supported in 2013.

For more information, see basf.com/mit-uns-gewinnt-die-region

Cultural events at BASF and in the region

Through its support of art and culture, BASF makes an important contribution to the attractiveness of the Rhine-Neckar Metropolitan Region. One of the highlights of our cultural activities is the concert series held at the BASF Feierabendhaus in Ludwigshafen. Renowned artists such as Anne-Sophie Mutter, the fado singer Mariza as well as the New York cellist Lynn Harrell performed there in 2013. Moreover, the Company sponsors top-class cultural projects. In this way BASF contributes to the enhancement of cultural program in the Rhine-Neckar Metropolitan Region. Examples of this include the Festival of German Films in Ludwigshafen and the Ludwigshafen Festival.

For more information, see basf.de/kultur

Long tradition of supporting sports

For more than 10 years, we have successfully been supporting amateur sports as well as encouraging young people and up-and-coming talent, often in cooperation with many clubs and sports organizations. This also includes financial assistance from BASF for the youth programs at sports club TSG Friesenheim. This club encourages young people to achieve their athletic, educational and career goals and supports them through cooperation between the club, school, association and social service institutions. BASF places great importance on promoting youth sports: The BASF Triathlon Cup Rhine-Neckar is a top-flight sporting event with more than 6,500 participants and an attractive course from the Odenwald to the Vorderpfalz region. It also offers many kids and teens the chance to compete alongside amateur and world-class athletes in an integrated competition especially for young people.

A model sporting event

In 2013, roughly 16,500 participants from over 800 companies in the metropolitan region took part in the 11th annual BASF FIRMENCUP, Germany’s third-largest company run. Around 500 children of employees competed in two age groups.

Two exceptional projects with special appeal were supported by BASF in 2013. BASF supported the International German Gymnastics Festival in the Rhine-Neckar Metropolitan Region, the largest and popular competitive sporting event, as the lead sponsor in the region. The educational aspect was also an important part of our support. With more than 14,000 workshop places sold, the Company and the gymnastics festival presented Europe’s largest congress for sport science in practice.

BASF’s commitment to culture

BASF sponsors top-class cultural projects in the host region of its Ludwigshafen site. In 2013, the internationally renowned Enjoy Jazz Festival took place for the fifteenth time. BASF has been a supporter of the festival since 2004 and thereby makes an important contribution to the attractiveness of the festival.

The Rhine-Neckar Metropolitan Region was the host of the International German Gymnastics Festival from May 18 to 25.

The Wollny quartet at the 15th Enjoy Jazz Festival

For more information, see basf.com/mit-uns-gewinnt-die-region
Local Community

Good neighborly relations

Like a city within a city, BASF’s plant in Ludwigshafen is surrounded by residential districts. That makes it especially important for us to have good relations with our neighbors. After all, a company can only be successful if it enjoys the trust of both its employees and its neighbors.

Visitor Center shows fascinating chemistry
Employees and neighbors are always welcome at the Visitor Center, where they can experience how fascinating chemistry in everyday life can be. Why does hair spray hold even in the rain? How tiny is nano? Situated at Gate 2 and covering more than 2,000 square meters, the Visitor Center gives curious visitors a chance to discover BASF and the world of chemistry. Five levels of exhibition space with around 160 interactive exhibits take visitors on a multimedia journey of discovery. The main themes of the exhibition are chemistry in everyday life, the history of BASF, raw materials, added value and sustainability, global presence, and research and development. Additionally, visitors can take a tour of the site and get to know the biggest Verbund once a month on one of the opening Saturdays.

Open dialog creates transparency
We advocate open dialog and want to create transparency and a continuous and constructive exchange of views and ideas. The community advisory panel (CAP), for example, is a key sounding board. Problems and issues arising in the site’s surroundings can be addressed openly in a discussion forum between the local community and company representatives. Other dialog partners include municipal administrators from the local area and BASF employees who volunteer for a political role.

Living and working at the Ludwigshafen site
The website provides information about current topics and BASF projects in Ludwigshafen. It covers everything from BASF’s diverse cultural program and social commitment to its catering offers and innovative exhibition concept for the Visitor Center.

We act with foresight, but also in emergencies
BASF can be contacted around the clock via its environmental monitoring center. All information received is taken seriously. If there is a disruption to operations, our specialists roll out in the environmental monitoring vehicle along with the fire department. However, even if no disruption is suspected, the environmental monitoring team regularly patrols inside and outside the site gates to check if levels are acceptable within the site and in the local environment. If there are any operational disruptions, our neighbors can get information via our free public hotline.

Environmental Monitoring Center

0621 60-40 40
Available around the clock

Public hotline

0800 50 50 500
Further information
You can find this and other publications online at www.basf.com
You can also order the reports:
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