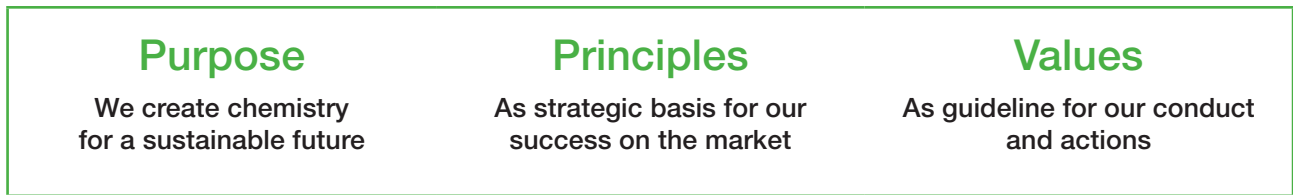


# Our strategy

## Corporate strategy



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

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

### Our corporate purpose

- We create chemistry for a sustainable future

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

We live our corporate purpose by:

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

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

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

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

We therefore act in accordance with four strategic principles.

### Our strategic principles

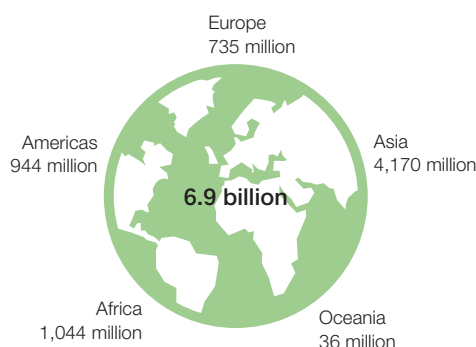
- We add value as one company
- We innovate to make our customers more successful
- We drive sustainable solutions
- We form the best team

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

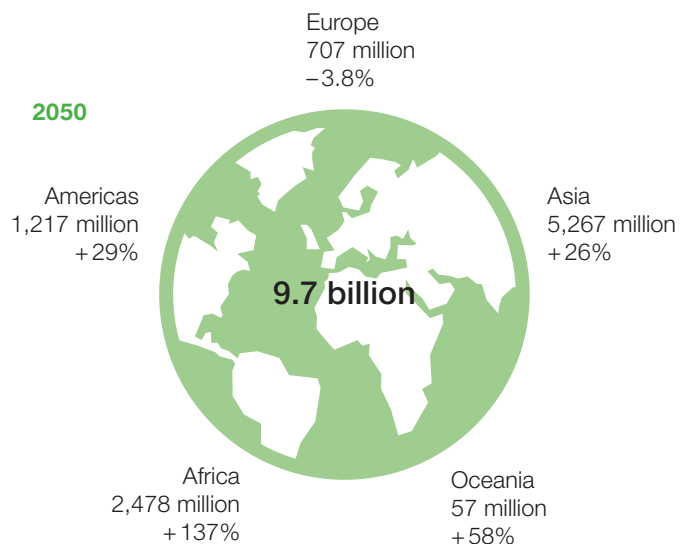
**We innovate to make our customers more successful.** We want to align our business optimally with our customers’ needs and contribute to their success with innovative and sustainable solutions. Through close partnerships with customers and research institutes, we link expertise in chemistry,

### World population growth

2010



2050



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

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

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

 For more on innovation, see page 32 onward

For more on business opportunities with sustainability, see page 29 onward

For more on the Best Team Strategy, see page 40 onward

## Our values

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- Creative
- Open
- Responsible
- Entrepreneurial

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

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

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

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

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

## Our focus areas


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

We used a materiality analysis to identify and rank relevant sustainability issues. These topics include, for example, energy and climate, water, resources and ecosystems, responsible production, and employment and employability.

Our long-term economic success is dependent on societal acceptance of our business activities. That is why we have formulated clear expectations for our conduct along the value chain:

- We source responsibly.
- We produce safely for people and the environment.
- We produce efficiently.
- We respect people and treat them fairly.
- We drive sustainable solutions.

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

 For more on our goals, see page 26 onward

## The BASF brand

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

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

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

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

We are constantly developing our brand image. We regularly measure awareness of and trust in our brand, and therefore in our company. A global market research study conducted every two years showed in 2016 that, in terms of awareness and trust, BASF is above the industry average in numerous countries. The study collected data on respondents' aided awareness of BASF and our most important competitors. Our goal is to continue increasing awareness of BASF in all of our relevant markets.

## Global standards

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

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

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

We stipulate rules for our employees with standards that apply throughout the Group. We set ourselves ambitious goals with voluntary commitments and monitor our performance in terms of the environment, health and safety using our Responsible Care Management System. In terms of labor and social standards, this takes place using three elements: the Compliance Program (including the external compliance hotlines), close dialog with our stakeholders (such as with employee representatives or international organizations), and the global management process for the respect of international labor norms.

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

📖 For more on labor and social standards, see page 45

For more on the Responsible Care Management System, see page 96

For more on Corporate Governance, see page 125 onward

For more on Compliance, see page 134 onward

## Innovations for a sustainable future

Innovations in chemistry are needed to meet the needs of the growing world population on a long-term basis. The development of innovative products and solutions is, therefore, of vital significance for BASF. In the long term, we aim to continue significantly increasing sales and earnings with new and improved products. Effective and efficient research is therefore indispensable.

We drive intensive research and development activities in our established business areas. One focus of our research is on the enhancement and innovative application of specific key technologies. They pool the diverse competencies of our international Research and Development Verbund to strengthen our competitive ability in the long-term. We also work on specific growth fields in order to develop future business fields for BASF. With our research, we aim to make a decisive contribution to innovative solutions for global challenges and contribute to sustainable development.

Our three global technology platforms are each based in one of the regions particularly significant for us: Process Research & Chemical Engineering (Ludwigshafen, Germany), Advanced Materials & Systems Research (Shanghai, China) and Bioscience Research (Research Triangle Park, North Carolina). We want to continue expanding our research and development activities on a global level, and are also adapting this to the growth in regional markets. The stronger global presence of our research and development opens up new opportunities to actively participate in worldwide innovation processes and gain access to talent.

📖 For more on innovation, see page 32 onward

## Business expansion in emerging markets

In the years ahead, we want to grow even more vigorously in the emerging markets and further expand our position there. Today's emerging markets are expected to account for around 60% of global chemical production in 2020. We aim to benefit from the above-average growth in these regions and therefore plan to invest more than a quarter of our capital expenditures<sup>1</sup> there between 2017 and 2021.

Growth in the emerging markets remained overall stable in 2016 as compared with the previous year. In China, government support measures kept growth from slowing down as much as we had expected. The other emerging markets of Asia were able to largely retain their growth dynamic. Gross domestic product continued to drop in South America. Brazil found itself in a severe recession, while gross domestic product decreased slightly in Argentina, as well. Economic performance in Russia shrank only marginally after sharp declines in the previous year; a contributing factor was the stabilization of oil prices. Overall, the emerging markets of eastern Europe were able to post slight growth once again.

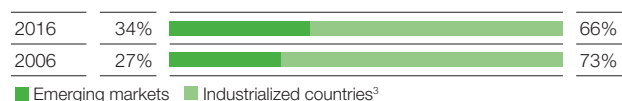
Compared with 2015, sales (excluding Oil & Gas) at our companies headquartered in the emerging markets declined by 3% to €14,849 million. Increased sales volumes could only partly compensate for negative currency and price effects. Measured by customer location, sales (excluding Oil & Gas) in the emerging markets fell by 4% to €18,742 million. This brought sales to customers in emerging markets to around 34% of total sales (excluding Oil & Gas) in 2016. In the years ahead, we want to continue expanding this percentage.

📖 For more on our goals, see page 26 onward

For more on current developments, see the Regional Results on page 91



### Sales<sup>2</sup> in emerging markets



<sup>2</sup> Percentage of BASF Group sales (excluding Oil & Gas) by location of customer

<sup>3</sup> Comprises EU15, Norway, Switzerland, United States, Canada, Japan, South Korea, Australia, New Zealand

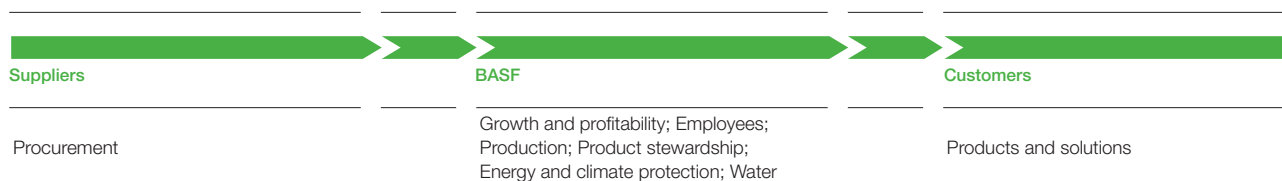
<sup>1</sup> Excluding additions to property, plant and equipment resulting from acquisitions, capitalized exploration, restoration obligations and IT investments

## Goals

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

growth and take on social and environmental responsibility. We are focusing on issues through which we as a company can make a significant contribution.

### Goal areas along the value chain



## Procurement

	2020 Goal	Status at end of 2016	More on
Assessment of sustainability performance of relevant suppliers <sup>1</sup> according to our risk-based approach; development of action plans where improvement is necessary	70%	32%	Page 92

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

## Growth and profitability

As determined in 2015, our aim for the years ahead is, on average, to grow sales slightly faster and EBITDA considerably faster than global chemical production (excluding pharmaceuticals; 2016: 3.4%), and to earn a significant premium on our cost of capital. Moreover, we strive for a high level of free cash flow each year, either raising or at least maintaining the dividend at the prior-year level. The goals for sales and EBITDA are based on the 2015 figures, excluding contributions from the business disposed of in the asset swap with Gazprom in September 2015.

	2016	Change since 2015
Sales	€57.6 billion	(4.6%) <sup>2</sup>
EBITDA	€10.5 billion	5.3% <sup>2</sup>
Dividends per share paid out	€2.90	€0.10
Premium on cost of capital	€1.1 billion	
Free cash flow	€3.6 billion	

<sup>2</sup> Baseline 2015: excluding business transferred to Gazprom

For more on our Results of Operations, see pages 50 to 54

## Employees

	2021 Goal	Status at end of 2016	More on
Proportion of women in leadership positions with disciplinary responsibility	22–24%	19.8%	Page 43
<b>Long-term goals</b>			
International representation among senior executives <sup>3</sup>	Increase in proportion of non-German senior executives (baseline 2003: 30%)	36.4%	Page 43
Senior executives with international experience	Proportion of senior executives with international experience over 80%	84.6%	Page 43
Employee development	Systematic, global employee development as shared responsibility of employees and leaders based on relevant processes and tools	The project has been implemented for around 78,150 employees worldwide.	Page 42

<sup>3</sup> The term “senior executives” refers to leadership levels 1 to 4, whereby level 1 denotes the Board of Executive Directors. In addition, individual employees can attain senior executive status by virtue of special expertise.

## Production

	2025 Goals	Status at end of 2016	More on
Reduction of worldwide lost-time injury rate per one million working hours	≤0.5	1.4	Page 98
Reduction of worldwide process safety incidents per one million working hours	≤0.5	2.0	Page 99
	<b>Annual goal</b>		
Health Performance Index	>0.9	0.96	Page 99

## Product stewardship

	2020 Goal	Status at end of 2016	More on
Risk assessment of products that we sell in quantities of more than one metric ton per year worldwide	>99%	75.4%	Page 101

## Energy and climate protection

	2020 Goals	Status at end of 2016	More on
Coverage of our primary energy demand by introducing certified energy management systems (ISO 50001) at all relevant sites <sup>4</sup>	90%	42.3%	Page 104
Reduction of greenhouse gas emissions per metric ton of sales product (excluding Oil & Gas, baseline 2002)	(40%)	(37.2%)	Page 104

<sup>4</sup> The selection of relevant sites is determined by the amount of primary energy used and local energy prices.

## Water

	2025 Goal	Status at end of 2016	More on
Introduction of sustainable water management at all production sites in water stress areas and at all Verbund sites (excluding Oil & Gas)	100%	42.6%	Page 107

## Products and solutions

	2020 Goal	Status at end of 2016	More on
Increase the proportion of sales generated by products that make a particular contribution to sustainable development ("Accelerators")	28%	27.2%	Page 30

## Value-based management

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

### EBIT after cost of capital

#### ■ Performance and management indicator

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

### Calculating EBIT after cost of capital

#### ■ Cost of capital determined using cost of capital percentage and cost of capital basis

To calculate EBIT after cost of capital, we take the BASF Group’s EBIT and deduct the EBIT of activities recognized under Other – not allocated to the segments – and subtract the cost of capital of the BASF Group from the resulting figure. **Cost of capital** is determined by applying cost of capital before taxes to the value of the cost of capital basis at each month end. Monthly cost of capital is then added up over the course of the year.

The **cost of capital percentage** (weighted average cost of capital, WACC) is determined using the weighted cost of capital from equity and borrowing costs. The cost of equity is ascertained using the Capital Asset Pricing Model. Borrowing costs are determined based on the financing costs of the BASF Group. EBIT after cost of capital, which we use as a steering parameter, is a pretax figure. Therefore, we use the current average tax rate to derive the pretax cost of capital percentage from the WACC. The projected net expense of Other is already provided for by an adjustment in the cost of capital percentage.

The **cost of capital basis** consists of a segment’s operating assets plus the customer and supplier financing not included there. Operating assets comprise the current and noncurrent asset items<sup>1</sup> used by the operating divisions.

### Value-based management throughout the company


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


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

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

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

We primarily comment on EBIT before special items on a segment and division level in our financial reporting. **Special items** arise from the integration of acquired businesses, restructuring measures, impairments, gains or losses resulting from divestitures and sales of shareholdings, and other expenses and income that arise outside of ordinary business activities. Adjusting for special items makes EBIT before special items an especially suitable figure for illustrating development over time. In addition to EBIT before special items, we also report on **sales** as a further main driver for EBIT after cost of capital. BASF’s nonfinancial targets are focused more on the long term, and are not used for short-term steering.

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

 For more on the development of the figures outlined in Results of Operations, see page 50 onward

<sup>1</sup> These include fixed assets, intangible assets, investments accounted for using the equity method, inventories, trade accounts receivable, other receivables generated by core business activities, and other assets as well as any assets of disposal groups.

## Sustainability management

**Sustainability is an integral part of our corporate strategy. Using the various tools of our sustainability management, we carry out our company purpose: “We create chemistry for a sustainable future.” Sustainability is integrated into our core business, in line with our strategic principle “We drive sustainable solutions.” This is how we seize business opportunities and minimize risks along the value chain.**

### Strategy

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

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

We have created structures to promote sustainable, entrepreneurial actions all the way from strategy to implementation. The Corporate Sustainability Board is BASF's central steering committee for sustainable development. It is comprised of the heads of our business, corporate and functional units as well as of the regions. A member of the Board of Executive Directors serves as chair. We have also established an external, independent Stakeholder Advisory Council. Here, international experts from science and society contribute important external perspectives to discussions with BASF's Board of Executive Directors, thereby helping us expand our strengths and identify our potential for improvement.

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

We were already using a materiality analysis back in 2013 to identify such topics as energy and climate, water, resources and ecosystems, responsible production, and employment and employability. A strategic evaluation process built upon this in 2015 and 2016 to define new focus topics along the value chain.

They provide strategic orientation for BASF's commitments in meeting the growing challenges along the value chain:

- We source responsibly.
- We produce safely for people and the environment.
- We produce efficiently.
- We respect people and treat them fairly.
- We drive sustainable solutions.

Relevant topics resulting from these commitments form the focal points of our reporting, which we integrate into our long-term steering processes.

We take advantage of business opportunities by offering our customers innovative products and solutions that contribute to sustainable development. We ensure that sustainability criteria are integrated into our business units' development and implementation of strategies, research projects, and innovation processes. For example, we analyze sustainability-related market trends in customer industries, such as the packaging industry, in order to zero in on taking advantage of new business opportunities.

Our risk management supports our long-term business success. We aim to reduce potential risks in the areas of environment, safety and security, health protection, product stewardship, compliance, and labor and social standards by setting ourselves globally uniform requirements that frequently go beyond legal requirements. Internal monitoring systems and complaint mechanisms enable us to check compliance with these standards: they include, for example, questionnaires, audits and compliance hotlines. All employees, managers, and Board members are required to abide by our global Code of Conduct, which defines a mandatory framework for our business activities.

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

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

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

📄 For more on our financial and sustainability goals, see page 26 onward

For more on our production standards, see page 98 onward

For more on standards in our supply chain, see page 92 onward

For more on Compliance and our Code of Conduct, see page 134 onward



## Engaging stakeholders

### ■ Constant dialog with our stakeholders

Our stakeholders include customers, employees, suppliers and shareholders, as well as representatives from science, industry, politics, society and media. Parts of our business activities, such as the use of new technologies, are frequently viewed by our stakeholders with a critical eye. In order to increase societal acceptance for our business activities, we take on critical questions, assess our business activities in terms of their sustainability, and communicate transparently. Such dialogs help us to even better understand society's expectations of us and which measures we need to pursue in order to establish trust and build partnerships.

To involve our stakeholders even more closely, members of the Board of Executive Directors once again met with the Stakeholder Advisory Council in 2016 to discuss important aspects of sustainability. Topics include further integrating sustainability into our company, as well as our new "Value to Society" approach. This involves evaluating the societal benefits and costs generated by BASF's business activities.

We have a particular responsibility toward our production sites' neighbors. With the established community advisory panels, we aim to promote open exchange between citizens and our site management, and strengthen trust in our activities. In 2016, we developed new, globally applicable requirements for community advisory panels at our sites. These minimum requirements are oriented toward the grievance mechanisms outlined in the U.N. Guiding Principles for Business and Human Rights. We keep track of their implementation through the existing global databank of the Responsible Care Management System.

BASF is involved in worldwide initiatives with various stakeholder groups, such as the U.N. Global Compact. BASF's Chairman of the Board of Executive Directors is a member of the United Nations Global Compact Board. As a member of the U.N. Global Compact LEAD initiative, we support the implementation of the "Agenda 2030" and its Sustainable Development Goals. BASF is also active in local Global Compact networks.

We are part of the Global Business Initiative on Human Rights (GBI). This group of globally operating companies from various branches aims to ensure implementation of the U.N. Guiding Principles on Business and Human Rights. With international experts at the GBI conference in South Africa, we discussed how we can support a mining company and BASF supplier in fulfilling its responsibilities with respect to human rights.

Our lobbying and political communications are conducted in accordance with transparent guidelines and in keeping with our publicly stated positions. BASF does not financially support political parties. In the United States, employees at BASF

Corporation have made use of their right to establish a Political Action Committee (PAC). The BASF Corporation Employee PAC is a voluntary, federally registered employee association founded in 1998. It collects donations for political purposes and independently decides how these are used, in accordance with U.S. law.

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

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

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

For more on our human rights position, see [basf.com/humanrights](http://basf.com/humanrights) and pages 45 and 134

📖 For more on sustainability in procurement, see page 92 onward

## Creating value

- **Value to Society: method for assessing economic, environmental and social impact of business activities along the value chain**
- **Evaluating sustainability performance to steer product portfolio**

We want to measure the value proposition of our actions along the entire value chain, aware that our business activities are connected to both positive and negative impacts on the environment and society. We strive to increase our positive contribution to society and minimize the negative effects of our business activities.

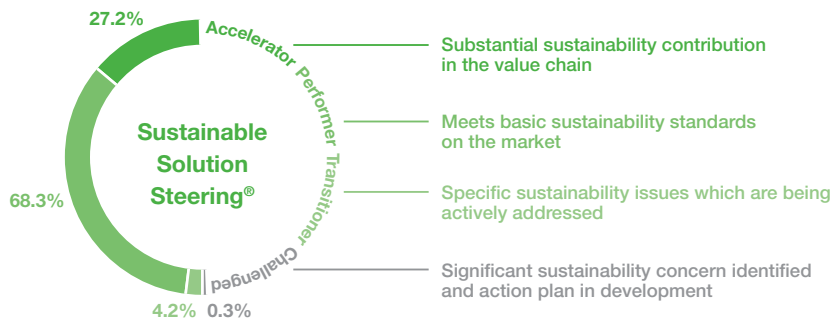
In order to achieve this, we need to understand better than ever how our actions impact society and the environment. We already have many years of experience evaluating our products and processes using such methods as eco-efficiency analyses, the Sustainable Solution Steering® portfolio analysis, or BASF's corporate carbon footprint.

Building on this, BASF has been developing a new method with external experts since 2014 to perform the first monetary assessment of the economic, ecological, and social impacts of its business activities along the value chain: the "Value to Society" approach. It enables a direct comparison between financial and nonfinancial effects on society, along with how these interact.

This transparency supports the integrated character of our actions, contributing to BASF's long-term success. The results of these assessments are helpful in our discussions with stakeholders, in internal progress measurements, and in decision-making processes.

We contribute our approach and expertise to current debates on the monetary value of the economic, environmental and social impact of business decisions. We share our experience in networks and are involved in the corresponding standardization processes within the International Organization for Standardization (ISO).

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



A significant lever for the targeted steering of our product portfolio, based on the sustainability performance of our products, is the Sustainable Solution Steering® method. By the end of the 2016 business year, BASF had conducted sustainability assessments and ratings for 95.9% of its entire relevant portfolio of more than 60,000 specific product applications – which account for €53.2 billion in sales. We consider the products' application in various markets and industries. Because of increasing sustainability requirements on the market, we regularly conduct reassessments of existing product categories as well as of the relevant portfolio.

“Accelerator” products make a particular contribution to sustainability in the value chain. That is why we want to increase the proportion of sales from Accelerator products to 28% by 2020. In 2016, this figure was at 27.2%.

**2020 Goal**

Increase proportion of sales generated by Accelerator products to **28%**

One of our Accelerator products for the agricultural sector is Limus®, an additive for urea-based fertilizers. Using purely urea-based fertilizers means the loss of a large portion of nitrogen – one of the most important crop nutrients – through the activity of the urease enzyme. Adding Limus® inhibits this enzyme and ensures a constant supply of nitrogen. At the same time, less ammonia is released into the atmosphere. Ammonia contributes to smog, as well as to overfertilization and alternation of the ecosystem. Limus® thus leads to more consistent harvest yields while protecting the environment.

“Transitioners” are products with specific sustainability challenges that are being actively tackled. Due to the adjustment of the portfolio under evaluation, the number of these products rose in 2016. A fuel additive from our Keropur® line is one example of how we enhance the sustainability performance of our products. Such innovative fuel additives increase the efficiency of combustion engines. The result is reduced fuel consumption, and therefore fewer pollutant emissions. Keropur® 3638 is categorized as a Transitioner because it

contains a liquid hydrocarbon mixture. This hydrocarbon mixture contains naphthalene, which categorizes it as a CMR (carcinogenic, mutagenic or toxic for reproduction) substance. In order to address some of our customers' occupational safety concerns, a research project was begun and a solution developed. Customers can now obtain the alternative Keropur® 3708, free of CMR substances.

For all products classified as “Challenged,” we aim to develop prompt plans of action, even in the case of portfolio revisions and product reassessments. These action plans can include research projects, reformulations or even replacing one product with an alternative product. At the end of 2016, action plans had been created for 100% of Challenged products.

We furthermore promoted sustainability topics in 2016 through various joint projects with partners along the value chain. One such project involved supporting the agricultural trading company AGRAVIS Raiffeisen AG, based in Münster/Hannover, in conducting calculations for the manufacture of sustainable feed mixes. BASF developed an online calculation program that compares various feed mixes for pigs using sustainability criteria along the entire value chain. The underlying eco-efficiency analysis measures various parameters like emissions to water, land use, CO<sub>2</sub> emissions and costs. Customers can use this information to figure out how to reduce their products' environmental impact while keeping an eye on costs. For example, a comparison between conventional and optimized feed mixes showed how impact on the environment can be significantly reduced while production costs remain nearly unchanged. Major factors here included minimizing water and land use. With new combinable feed mixes containing grain by-products and other ingredients, reductions can be attained in the use of arable land for producing feed for hogs.

For more on Value to Society (methodology and results), see [basf.com/en/value-to-society](http://basf.com/en/value-to-society)

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

For more on our sustainability instruments, see [basf.com/en/measurement-methods](http://basf.com/en/measurement-methods) and page 94

