

BASF in Greater China Report 2015



 **BASF**
We create chemistry

Chemicals

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



Key data Chemicals (in million €)

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

Performance Products

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



Key data Performance Products (in million €)

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

Functional Materials & Solutions

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



Key data Functional Materials & Solutions (in million €)

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

Agricultural Solutions

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



Key data Agricultural Solutions (in million €)

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

Oil & Gas

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



Key data Oil & Gas (in million €)

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

BASF Group 2015 at a glance

Economic data

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

¹ Including acquisitions

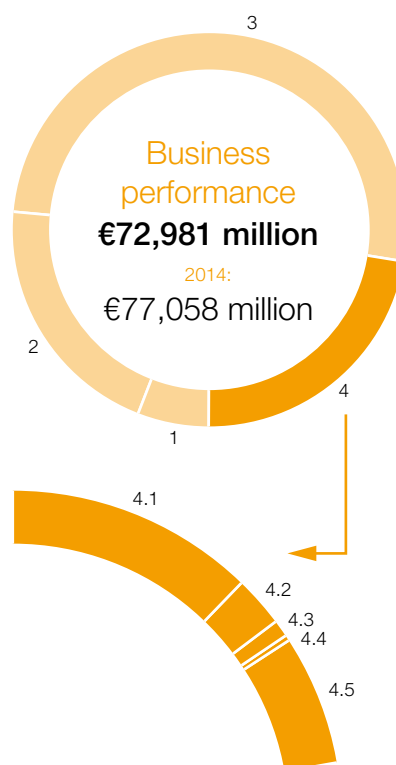
Value added 2015²

Creation of value added (in million €)

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

Use of value added

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



² Value added results from the company's performance minus goods and services purchased, depreciation and amortization. Business performance includes sales revenues, other operating income, interest income and net income from shareholdings. Value added shows the BASF Group's contribution to both private and public income as well as its distribution among all stakeholders.

Innovation

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

Employees and society

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

Safety, security, health and the environment

		2015	2014	Change in %
Safety, security and health				
Transportation incidents with significant impact on the environment		0	1	(100)
Process safety incidents	per one million working hours	2.1	2.2	(4.5)
Lost-time injuries	per one million working hours	1.4	1.5	(6.7)
Health Performance Index		0.97	0.91	6.6
Environment				
Primary energy use ³	million MWh	57.3	59.0	(2.9)
Energy efficiency in production processes	kilograms of sales product/MWh	599	588	1.9
Total water withdrawal	million cubic meters	1,686	1,877	(10.2)
Withdrawal of drinking water	million cubic meters	22.1	22.7	(2.6)
Emissions of organic substances to water ⁴	thousand metric tons	17.3	18.7	(7.5)
Emissions of nitrogen to water ⁴	thousand metric tons	3.0	3.2	(6.3)
Emissions of heavy metals to water ⁴	metric tons	25.1	21.5	16.7
Emissions of greenhouse gases	million metric tons of CO ₂ equivalents	22.2	22.4	(0.9)
Emissions to air (air pollutants) ⁴	thousand metric tons	28.6	31.5	(9.2)
Waste	million metric tons	2.0	2.1	(4.8)
Operating costs for environmental protection	million €	962	897	7.2
Investments in environmental protection plants and facilities	million €	346	349	(0.9)

³ Primary energy used in BASF's plants as well as in the plants of our energy suppliers to cover energy demand for production processes

⁴ Excluding emissions from oil and gas production

Audits along the value chain

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

BASF in Greater China Report 2015

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About this report

The “BASF in Greater China - 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 Greater China. The reporting period for this publication is the financial year 2015. This report also carries an overview of BASF Group along with its financial performance, prepared in accordance with the requirements of the International Financial Reporting Standards (IFRS), and, where applicable, the German Commercial Code as well as the German Accounting Standards (GAS). The emissions, waste, energy and water use of joint ventures accounted according to the equity method are not included in the scope of this report. However, work-related accidents at all sites of BASF Group and its subsidiaries as well as joint operations and joint ventures in which we have sufficient authority in terms of safety management, are compiled regardless of our stake, and reported in full. The employee numbers refer to employees within the BASF Group scope of consolidation as of December 31, 2015.

Welcome

Letter from the president

Dear Stakeholders,

In 2015, in a changing market environment, BASF achieved solid financial results while continuing our widespread environmental and social efforts in Greater China.

We achieved a slight increase in sales in 2015, to €5.7 billion, which demonstrates a continuous contribution to China's economy through the excellent performance of our products and solutions. However, 2015 was characterized by a highly uncertain global environment, a slow-down of important customer industries and strong competition.

BASF has established an extensive footprint in Greater China and invested heavily in local production as well as research and development over the past several years. By doing this, we have intensified our focus on the local customers to better serve their needs, including an increasing number of innovations that make a direct contribution to our customers' sustainability goals.

We are further boosting this collaboration with our newly strengthened research and development capabilities at the Innovation Campus Asia Pacific (Shanghai). Our 150-year history demonstrates how innovation in chemistry enables economic, environmental and social development, and it will continue to play a big part in the on-going transformation of many key industries in Greater China.

In 2015, we achieved excellent results in our environment, health and safety performance. We improved several indices, including a reduction in lost time injuries, and made significant reductions of our emissions and waste, despite expanding our production in Greater China. Looking beyond our own operations, we support initiatives such as Together for Sustainability where we share our expertise with customers, partners and suppliers along the value chain.

I believe that in the coming years, China will experience many positive changes. Along with economic reforms, there will be more emphasis on sustainability, including emission reduction and waste management. These developments will also open up a broad range of opportunities for BASF.



Effective January 1st, 2016, Dr. Stephan Kothrade is President, Functions Asia Pacific, President and Chairman Greater China, BASF.

I would like to join hands with you to embrace these opportunities, to work together for the sustainable development of the chemical industry and for the sustainable development of Greater China.

Dr. Stephan Kothrade
President Functions Asia Pacific
President and Chairman Greater China, BASF



As part of BASF's 150th anniversary celebration in 2015, the Creator Space tour came to Shanghai, bringing together employees, non-governmental organizations, customers, academics and artists to address the challenges of urban living.



The hydrogen plant at BASF's Verbund site in Ludwigshafen produces hydrogen from natural gas and water vapor in a multi-step process. Excess heat from individual process stages is also used to create steam and feed this into BASF's pressurized network.

The BASF Group

At BASF, we create chemistry for a sustainable future. As the world's leading chemical company, we combine economic success with environmental protection and social responsibility. The approximately 112,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is arranged into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas.

Organization of the BASF Group

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

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

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

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

Markets and sites

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

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

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

Verbund

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

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

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

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

Competitive environment

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

Corporate legal structure

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

Our 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 solutions 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 even more with our customers’ needs and contribute to their success with innovative and sustainable solutions. Through close partnerships with customers and research institutes, we link expertise in chemistry, 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.

Our values

- Creative
- Open
- Responsible
- Entrepreneurial

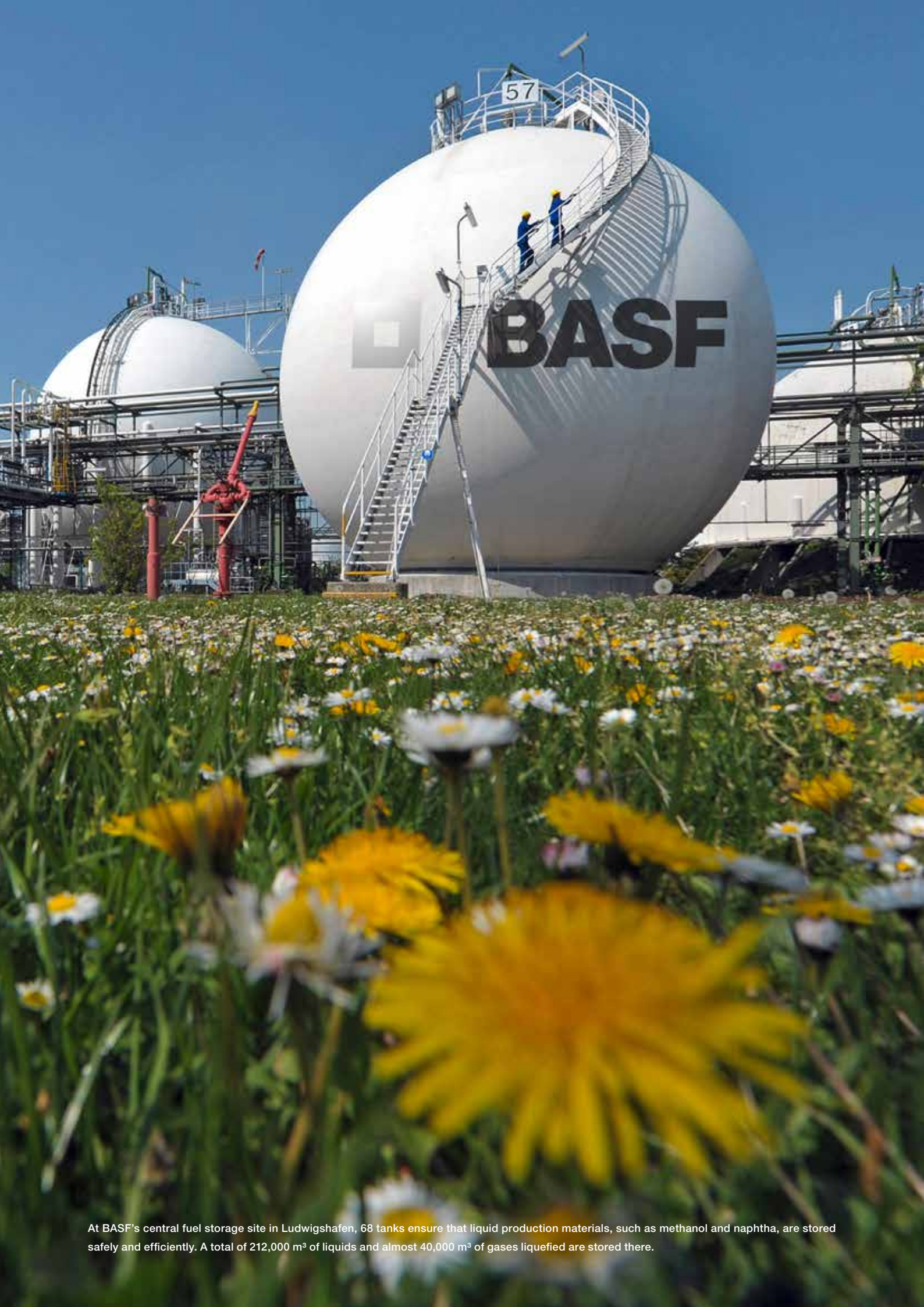
Our conduct is critical for the successful implementation of our strategy: This is what our values represent. They guide how we interact with society, our partners and with each other.

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

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

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

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



At BASF's central fuel storage site in Ludwigshafen, 68 tanks ensure that liquid production materials, such as methanol and naphtha, are stored safely and efficiently. A total of 212,000 m³ of liquids and almost 40,000 m³ of gases liquefied are stored there.

Goals

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

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

Goal areas along the value chain



Growth and profitability

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

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

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

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

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

Procurement

	2020 Goal	Status at end of 2015
Assessment of sustainability performance of relevant suppliers ¹ according to our risk-based approach; development of action plans where improvement is necessary	70%	31%

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

Employees

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

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

Production

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

Product stewardship

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

Energy and climate protection

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

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

Water

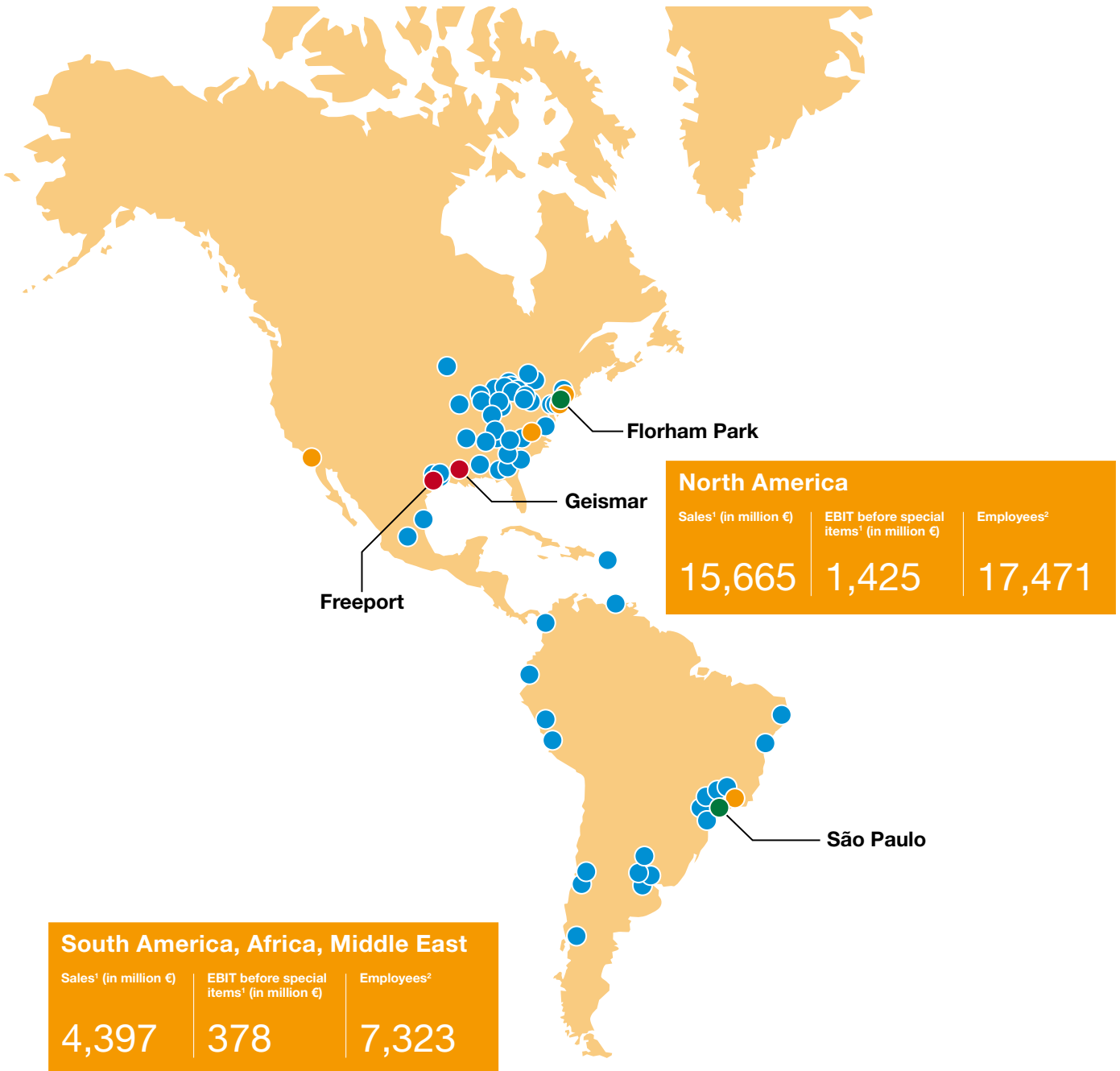
	2025 Goal	Status at end of 2015
Introduction of sustainable water management at all production sites in water stress areas and at all Verbund sites (excluding Oil & Gas)	100%	36.2%

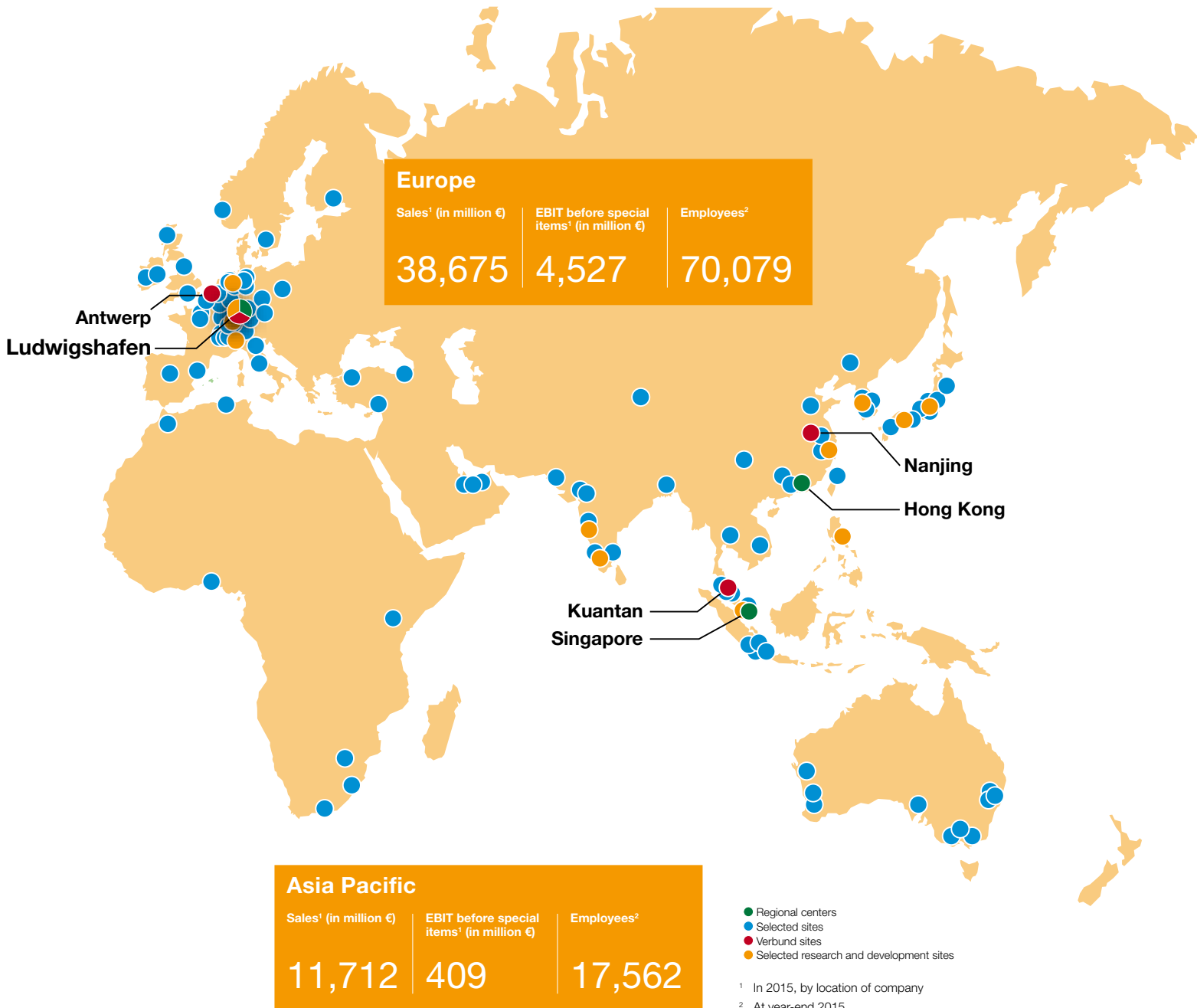
Products and solutions

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

BASF in the regions

BASF Group sales 2015: €70,449 million;
EBIT before special items 2015: €6,739 million





The anniversary year of BASF

A collection of impressions

Our actions are centered on developing innovative, sustainable products and solutions for our customers. To do so, we have relied on collaboration with strong partners for 150 years. This key to success was the focus of our anniversary year in 2015. We organized a tour around the world, bringing scientists, customers, employees and partners from all over the globe together at one table and launching an online platform to connect everyone. Ideas were proposed surrounding three main themes: urban living, smart energy and food. We call this “co-creation.” It is one way to fill our idea pipeline for the future and create value. The following examples highlight some of the contributions.

URBAN LIVING

A clean air app

How does growing urbanization affect our planet? And how can we as individuals lead a sustainable lifestyle? These were the questions addressed at the “Creatathon” in Shanghai. The idea: People engage in a highly creative activity for a sustained, uninterrupted period of time. Just like in Shanghai, when BASF invited six college teams to spend 24 hours devoting themselves to developing an app-based, sustainable mobility solution. The goal of the app was to help city dwellers minimize their carbon footprint by selecting the most environmentally friendly mode of transportation.

In the end, first place went to the team from East China Normal University: With their “Carbon Coin” idea, consumers can cash in their personal contribution to sustainability as “currency” on an online platform – similar to emissions trading between companies.



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

SMART ENERGY

The bus to the future

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



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

FOOD

Employees get involved

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



Global community: A new well for an orphanage in Cameroon – employees around the world got involved in numerous projects addressing social needs.

150 years

- **BASF**

We create chemistry



Drum performance at the opening of the Creator Space™ Tour Shanghai stop, celebrating BASF's 150th anniversary.

BASF in Asia Pacific

An interview with Sanjeev Gandhi

How does BASF plan to grow its business in Asia Pacific?

Over the past few years we have seen increasing volatility and uncertainty, and this trend will continue. However, there are also substantial opportunities for business growth.

We have invested significantly in the region, not only in terms of technology and production facilities, but also in people development and innovation. Now is the time for us to bring these investments to life – by providing the necessary materials to make our customers' local innovations possible, and supporting their growing businesses as they strive to reach international markets.

What are the main trends impacting BASF's business in the region?

We see an increased interest in sustainability throughout the region, which in turn means a higher level of regulatory restrictions for chemical operations and chemical products and solutions.

In many cases this benefits our business, as we can provide solutions to help meet our customers' sustainability challenges. We aim to collaborate with our local and international customers from product design through to materials strategy – and we will continue to invest in the region in order to do this.

How is the chemical industry evolving in Asia Pacific?

Local industry overall in the region is becoming stronger and more robust, and as a result the need for international standards has grown rapidly. BASF is working closely with local industry to establish best practices in the region according to the global chemical industry standard Responsible Care®. By adhering to these international standards and by demanding the same high performance of our suppliers, we can help to foster excellence not only in our own business but in the industry at large. At the same time, we also are working with our customers to achieve high quality standards in production, product stewardship, and environmental and social practices along



Sanjeev Gandhi, member of the Board of Executive Directors responsible for Asia Pacific, BASF SE

the entire product life cycle and industry value chain. In this way the global chemical industry is becoming more integrated and developed.

What are BASF's plans for Greater China?

As one of the world's largest chemical markets, Greater China is home to many of our key customers in the region. There is huge potential for growth in industries such as automotive, agriculture and construction. Innovation is an increasingly important driver to tap these growing opportunities, and for this reason we plan to leverage the capabilities of our Innovation Campus Asia Pacific in Shanghai, to forge even closer partnerships with our local customers and partners for solutions that tackle current and future challenges.

Asia Pacific at a glance

Economy

With decelerating market growth, sales at companies headquartered in the Asia Pacific region rose by 1 percent to €11,712 million. In local currency terms, sales declined by 12 percent. BASF sales to customers in the Asia Pacific region stayed flat, at €12,334 million (2014: €12,341).

Considerable sales increases, primarily in the Catalysts, Coatings and Care Chemicals divisions, were able to more than compensate, in particular, for declines in the Petrochemicals and Monomers divisions as well as in Other. Currency effects positively influenced sales, especially in the first half of the year. In the Chemicals segment in particular, lower raw material costs and higher production capacities on the market resulted in falling prices. Sales were furthermore weighed down by the disposal of our shares in the Ellba Eastern Private Ltd. joint operation in Singapore and by the divestiture of our textile chemicals business.

Income from operations before special items fell by 33 percent to €409 million. Significant factors were higher fixed costs from the startup of new plants, and several scheduled maintenance shutdowns in the first half of the year.

As part of our regional strategy, we are striving to further raise the proportion of sales coming from local production in Asia Pacific in the years ahead. In China, we started operations at new production in Chongqing, Nanjing, Maoming and Shanghai. Further investment projects are currently in the construction phase, as planned. The continuous expansion of our Innovation Campus Asia Pacific in Shanghai strengthens the presence of this growth region within the global Research Verbund. To improve profitability in Asia Pacific, we intensified our measures to increase efficiency and effectiveness.

BASF sales in Asia Pacific (billion €)
(by location of customer)

Year	Sales (billion €)	Change (%)
2015	12.3	+1%
2014	12.3	-12%
2013	12.5	0%

BASF EBIT before special items in Asia Pacific (million €)
(by location of company)

Year	EBIT (million €)	Change (%)
2015	409	-33%
2014	614	-
2013	842	-

Environment

BASF undertook several initiatives in 2015 to improve performance in environmental protection, health and safety. For example, BASF is partnering with Sumitomo Chemical, a leading multinational chemical company based in Japan, to explore an in vitro system for chemical safety evaluation as an alternative to animal testing.

Solutions from BASF addressed environmental challenges such as coastal erosion in Korea, smart energy storage in Japan, and soil pollution in China. BASF and partners are tackling energy efficient buildings with plans to build the world's tallest certified "passive house", in Tianjin, China.

Additionally, through the 150th anniversary co-creation activities, teams addressed topics including water quality and availability in Mumbai, electronic waste and textile sustainability in China, and food waste management around the region.

Employees and society

As of the end of 2015, BASF employed 17,562 people in the Asia Pacific region (2014: 17,060). Of these, 26.2 percent were female (2014: 27 percent). There were 1,861 new hires in the region in 2015, 25.1 percent of which were female (2014: 22.8 percent of 2048).

Number of employees (as of December 31)

Year	Total	% of which female
2015	17,562	26.2%
2014	17,060	27%
2013	16,708	28%

Number of new hires (as of December 31)

Year	Total	% of which female
2015	1,861	25.1%
2014	2,048	22.8%
2013	1,933	26%

To ensure employee health and safety, BASF implemented safety training throughout the region and rolled out a program for personal safety on business trips.

For the sixth consecutive year, BASF has been named one of China's Top Employers by Top Employers Institute, while in Korea and Taiwan, BASF was recognized for its exceptional human resources development programs as well as its social contributions.

BASF in Greater China

History

BASF celebrated its 150th anniversary in 2015 – also marking 150 years of continuous innovation. In 1885, the company began selling textile dyes in China, one of the most important chemical products of the time. Since then, BASF's activities in the country have grown and diversified steadily. For 130 years, the company has been successfully conducting business in Greater China, increasing and diversifying its activities. Over the last 20 years, BASF has invested nearly €6 billion – and above €8 billion with its partners – in Greater China. This has resulted in a strong local production base and research capability, as well as an extensive distribution network.

Pioneering spirit: entering China

In 1913, China already accounted for 14 percent of the company's global sales. For example, Indigo dyes in southern China were important buyers of the company's dyes at the time. Indigo, synthesized by BASF in 1897, had a long tradition in Asia for blue colored work clothes. Starting in the 1940s, war and political upheaval made China activities more difficult for some years, but BASF managed to get back into the business in the 1950s. It relaunched its dyes trade, later adding fertilizers. BASF hired Hong Kong-based German company Jebsen & Co. as its exclusive trading agent with China.

As early as 1962, the BASF Board of Executive Directors declared a general interest in building production facilities in Greater China. The first investment was realized in 1969, when BASF founded a subsidiary in Taiwan under the name Teh Hsin Dyes and Chemicals Co. Ltd. This entity bought into Cheng Kuang Chemical Co. Ltd. which operated a formulation factory for crop protection products in Taipei. The joint venture became the nucleus of BASF's growth in Taiwan: In 1984, it was renamed BASF Taiwan Ltd.

During the 1970s, BASF traded an ever-increasing range of chemicals through Jebsen & Co., covering 30 major industries for BASF products such as organic intermediates. Almost all plastics produced by BASF at the time were also available

to China. At the end of that decade, BASF's revenue in China had reached some 100 million Deutschmarks (DM) – a business scope large enough to require conducting the business independently. Year 1982 marked the establishment of BASF China Ltd. in Hong Kong.

A few years later, the time had come for direct investment into production sites in Mainland China: In 1988, BASF founded its first joint venture: Shanghai Gaoqiao BASF Dispersions Co. Ltd., which as BASF's longest-standing production facility in China makes styrene-butadiene dispersions for paper coating and carpets. Other joint ventures followed, for example Shanghai BASF Colorants and Auxiliaries Co. Ltd., BASF Shanghai Coatings Co. Ltd. and BASF Vitamins Co. Ltd. in Shenyang. In 1995, BASF established its East Asia regional headquarters in Hong Kong, reflecting the increasing importance of the China market.

Stronger Greater China presence

In 2000, after years of exploration and negotiation, BASF and China Petroleum & Chemical Corp. (Sinopec) established the BASF-YPC Co. Ltd. joint venture to build a Verbund site in Nanjing which involved an initial joint investment by both partners of \$2.9 billion. This venture marked BASF's largest single overseas investment in the company's history. In 2005, the Verbund site started production, and it is now one of six such BASF Verbund sites in the world. Construction was subject to some of the strictest safety rules China had seen at the time, and proceeded without major incidents. In 2006, the partners agreed to expand the site, and the second phase was inaugurated in 2012. To date, the joint investment has totaled \$5.2 billion. Further expansion is underway.

The Verbund site opened up a phase of remarkable growth and expansion. In Shanghai, BASF developed production clusters around the Gaoqiao and Caojing areas, all equipped with advanced production technologies. In Caojing, BASF inaugurated its first wholly-owned factory in China in 2005: a plant to produce polyTHF®, a chemical compound used for

1885 – 1990: Entering China

- 1969: first investment in Taiwan
- 1982: launch of BASF China Ltd. in Hong Kong
- 1988: first joint venture in mainland China

1990 – 2000: Deepening engagement

- 1995: launch of BASF East Asia regional headquarters in Hong Kong

making elastic fibers. Together with a precursor factory, this plant is now the world's largest polyTHF complex. Together with foreign and local partners, in 2006 BASF opened an integrated isocyanate production site at the Shanghai Chemical Industrial Park in Caojing, making methylene diphenyl diisocyanate (MDI) and toluene diisocyanate (TDI), two polyurethane precursors. In order to serve the growing market in Western China, BASF constructed another large MDI plant in Chongqing, which started production in 2015.

Major global acquisitions by BASF since 2005 have also benefited its China activities. For instance, BASF acquired and integrated the electronic chemicals business of Merck Group in 2005, the construction chemicals business of former Degussa and the catalysts business from Engelhard Corp. in 2006, specialty chemical producers Ciba in 2009 and Cognis in 2010, as well as battery materials manufacturer Novolyte Technologies in 2012.

Integration and innovation

Over the years, BASF's presence in Greater China has become increasingly sophisticated and intertwined with its global operations. In 2004, BASF centralized the administration of its China business and moved its Greater China headquarters to Shanghai, which was then integrated with the company's existing major production and research facilities in the city's Pudong New Area in 2012. The Pudong site has since become one of BASF's biggest integrated sites worldwide.

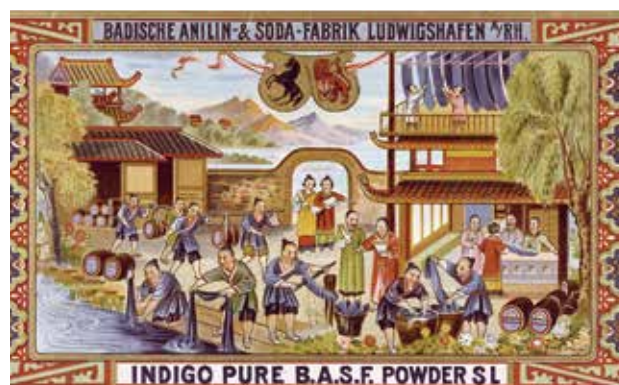
BASF has also built up an extensive research and development (R&D) network in Greater China to provide tailor-made solutions to local customers. As early as 1970, BASF opened an agricultural research station in Taiwan – its first R&D facility in Asia. In 2007, it launched an R&D center for automotive industry solutions in Shanghai, which was followed by a wide range of R&D labs and facilities in Greater China. In 2012, the company opened its BASF

Innovation Campus Asia Pacific (Shanghai) at the Pudong site. Its second phase was inaugurated in 2015, and became home to the headquarters of Advanced Materials and Systems Research – one of the company's three global research platforms from January 2016. The Innovation Campus in Pudong has become the hub of BASF's R&D activities in the region.

Responsibility along the value chain

BASF has been committed to the principles of Responsible Care®, a voluntary initiative of the chemical industry for continuous improvement in the areas of environmental protection, health and safety, since 1992. In 2011, BASF together with several other companies co-founded the "Together for Sustainability" initiative for the global standardization of supplier evaluations and auditing in the chemical industry. In 2014, the initiative held its first global conference in China.

BASF became a member of the founding presidium of the Global Compact Network China in 2011, which calls on companies in China to align their strategies in human rights, labor, environment and anti-corruption.



A dye label for the Chinese market 130 years ago

2000–2005: Major investments

- 2000: BASF-YPC established
- 2004: Greater China headquarters relocated to Shanghai

2005–2014: Growth and integration

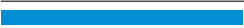

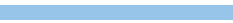
- Major acquisitions
- Growing numbers of production and R&D facilities
- 2012: launch of Innovation Campus Asia Pacific in Shanghai

2015: 130 years of growth and future perspectives

Business development

Greater China is BASF's third-largest market worldwide. In 2015, the company achieved sales of €5.7 billion to customers located in mainland China, Taiwan, Hong Kong and Macau. With major investments in Nanjing, Shanghai and Chongqing, as well as numerous sites around the country, BASF is the largest foreign investor in China's chemical industry. Altogether, the company operates 25 major wholly-owned subsidiaries and five major joint ventures in Greater China, and had around 8,400 employees in 2015.

Sales (billion €)
(by location of customer)

2015	5.7	
2014	5.5	
2013	5.5	

Shanghai: expanded production and research capabilities

- Second phase of Innovation Campus inaugurated at Pudong site
- Multiple new and expanded facilities across several sites in Shanghai

BASF's Greater China headquarters is located at its Pudong site in Shanghai, which is also home to the company's Innovation Campus Asia Pacific. The second phase of the Innovation Campus was inaugurated in November 2015, including a new research and development building and auxiliary facilities. BASF also relocated the global headquarters of its Advanced Materials & Systems Research – one of three global research platforms – to the Innovation Campus in January 2016. BASF's Pudong site is now one of the company's major integrated sites worldwide.

 For more on Innovation Campus Asia Pacific (Shanghai), see page 28

Eight BASF production plants are located at the Pudong site, where the company makes engineering plastics and specialty chemicals such as amino resins, pigment preparations, leather

and textile chemicals, coolants, brake fluids and dispersions. BASF's biggest compounding facility in Asia Pacific for Ultramid® polyamide and Ultradur® polybutylene terephthalate compounds is located at this site. The company also operates a thermoplastic polyurethanes plant, a Cellasto® microcellular polyurethane elastomer plant and a system house in Pudong.

At its Jinqiao site in Shanghai, BASF produces advanced mobile emissions catalysts for light and heavy duty vehicles.

 For more on emissions catalysts, see page 22



A major expansion of the R&D center at the Innovation Campus Asia Pacific (Shanghai) was inaugurated in 2015.

BASF was among the first companies to open production facilities at the Shanghai Chemical Industry Park (SCIP) in Caojing. There, the company runs two joint ventures with Huntsman, Shanghai Hua Yi (Group) Co., Sinopec Assets Management Corp. and Shanghai Chlor-Alkali Chemical Co. Ltd. to manufacture methylene diphenyl diisocyanate (MDI) and toluene diisocyanate (TDI). These are the key components for the production of polyurethanes, used in automotive, construction and everyday products such as refrigerators, upholstery, mattresses or footwear. In order to double MDI capacity at Caojing to 480,000 metric tons per year, BASF and its partners are currently constructing an additional new plant which is scheduled to be completed in 2017. The partners also plan to build a hydrogen chloride recycling plant for the production of chlorine, a precursor for MDI.

Sites



BASF in Greater China

Facts and figures¹

With major investments in Nanjing, Shanghai and Chongqing, BASF is the largest foreign investors in China's chemical industry. In 2015, it achieved sales of over €5.7 billion to customers located in Greater China, and has more than 8,416 employees there. BASF also operates expanding research facilities in Greater China.

Headquartered in Shanghai, BASF Greater China currently operates 25 major wholly owned subsidiaries, five major joint ventures and maintains a number of sales offices across Greater China. BASF's business in Greater China includes intermediates, monomers, petrochemicals, dispersions & pigments, care chemicals, nutrition & health, paper chemicals, performance chemicals, catalysts, construction chemicals, coatings, performance materials and crop protection solutions.

Sales in 2015²

€5.7 billion

Employees

8,416

¹ Some sites are not shown on the map due to scale. Site and office numbers refer to the companies of significant size where BASF holds a stake greater than 50 percent.

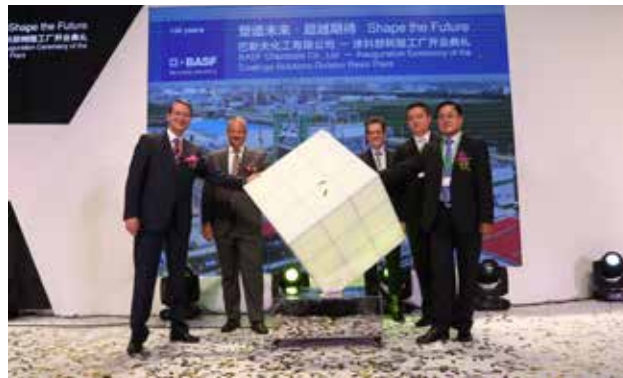
² Sales by location of customer

At SCIP, we operate a growing number of wholly-owned production facilities. The company's PolyTHF® (polytetrahydrofuran) plant, which produces a major raw material for spandex fibers, was BASF's first large-scale, wholly-owned facility in China. It started operation in 2005, and its second phase opened in January 2015. In August 2015, BASF inaugurated a new resin and electrocoat plant. This is a vital addition to the global manufacturing network of high-quality coatings, and is strategically located next to the automotive coatings plant which opened in 2014. Both plants are fully integrated to achieve excellent production efficiency. Additionally, a new Ultramid polymerization plant was inaugurated in May 2015. With a capacity of 100,000 metric tons per year, this is BASF's first investment in polyamide polymerization in Asia Pacific. In June 2015, BASF broke ground for a new facility that will produce base metal catalysts, custom catalysts and adsorbents. Other BASF factories at the site include a plant that produces precious metals-based salts and solutions for BASF's mobile emissions catalysts production and other industrial applications, and a facility manufacturing Basonat® (polyisocyanate) for the coatings and furniture finishing industry.

BASF is working to expand its emollients and waxes production capacity with a new plant at its site in Jinshan. The investment, complementing the current production of wax esters, emulsifiers and primary surfactants in Jinshan, will further enhance BASF's local production and better serve the growing personal care market in Asia Pacific.



A new Ultramid® polymerization plant was inaugurated in May 2015 at SCIP, Shanghai, China



Inauguration of BASF's new resin and electrocoat plant at SCIP, Shanghai, China

Nanjing: BASF's largest production site in Greater China

- Continuous expansion of BASF-YPC Verbund site
- New plants at BASF wholly-owned Nanjing site

Nanjing is the location of BASF's largest production site in Greater China, the integrated petrochemical Verbund site of BASF-YPC Co. Ltd. (BASF-YPC), jointly operated by BASF and its long-standing partner, China Petroleum & Chemical Co. (Sinopec). BASF's Verbund system is unique in the industry, and an example of how we add value as one company. Our Verbund sites achieve extremely efficient production and high levels of safety by clustering plants and re-using by-products. For example, BASF-YPC provides raw materials, utilities and services to the adjoining BASF Nanjing site, which is wholly owned by BASF and manufactures chemicals for water treatment, paper, tire, paint and coating industries. Both partners are continuously expanding the Verbund site. In December 2015, we opened a new plant for neopentylglycol, a unique polyalcohol that, thanks to its high chemical and thermal stability, offers superior performance in many end-use applications such as coatings, textiles and construction.

At the nearby Nanjing Chemical Industry Park, BASF operates a cluster of wholly-owned facilities, including a plant for products for water treatment and paper manufacturing and a coating additives factory. In September 2015, BASF

has completed a major capacity expansion at its tertiary Butylamine (tBA) plant there which is integrated with the production facilities of BASF-YPC. This capacity expansion of 60 percent enables BASF to meet the growing demand for tire additives in China and Asia Pacific. Tertiary Butylamine is a primary aliphatic amine that is used as an intermediate in the production of accelerators for the rubber and tire industry. BASF is also building a facility to manufacture specialty amines, whose main products will be dimethylaminopropylamine and polyetheramines, which are precursors for a wide variety of chemical products.

Chongqing: MDI plant starts production

BASF's new MDI complex in Chongqing began production in August 2015. With an investment of around ¥8 billion (approximately €860 million), the site located at Changshou Economic & Technological Development Area is the first manufacturing base in Western China for MDI. MDI is a precursor for polyurethane, an extremely versatile plastic material used in many everyday products. BASF's new MDI production will thus support many key industries and facilitate the formation of a new industry hub in Western China.

Around mainland China: new projects and sites

- **BASF and Sinopec inaugurate world-scale isononanol plant in Maoming, Guangdong**
- **BASF and Markor open new butanediol plant in Korla, Xinjiang**

In October 2015, BASF and its long-standing partner Sinopec inaugurated their new world-scale isononanol (INA) plant within the Maoming Hi-tech Industrial Development Zone in southern Guangdong province. The plant, with an annual capacity of 180,000 metric tons, is operated by BASF MPCC Company Limited, a 50-50 joint venture between the two partners. INA is used for the production of diisononyl phthalate, a high molecular weight phthalate plasticizer. High molecular weight phthalate plasticizers have more favorable toxicological properties compared to low molecular weight phthalate plasticizers. The new site is BASF's first INA plant in Greater China and will serve the growing demand for these next-generation plasticizers.

In January 2016, BASF and Xinjiang Markor Chemical Industry Co., Ltd officially inaugurated a new butanediol (BDO) plant in Korla, Xinjiang Uygur autonomous region, in Northwest China. The plant, which has an annual capacity of 100,000 tons, is operated by a joint venture between Markor and BASF, registered under the name Markor Meiou Chemical (Xinjiang) Co., Ltd. BDO is used in the manufacturing of technical plastics, polyurethanes, solvents, electronic chemicals and elastic fibers.



BASF's new MDI complex in Chongqing started production in August 2015.



BASF and Sinopec inaugurated a new world-scale isononanol (INA) plant in Maoming, Guangdong, China.

Business highlights

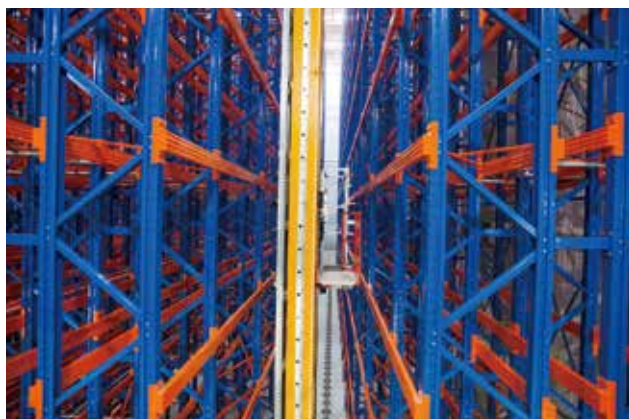
In 2050, more than nine billion people will live on our planet. The global population and its demands will keep growing, while the planet's resources are finite. In Greater China, BASF helps customers in a broad range of industries to meet the current and future challenges by providing sustainable solutions based on chemistry.

Fewer emissions, cleaner air

- New emissions catalysts help vehicles meet stringent Euro 6 standard
- New generation of KuaiLePao fuel additives improve fuel economy in China's vehicles

China has put a high priority on fighting air pollution in urban areas. According to a recent pollution source analysis by the Ministry of Environmental Protection in China, emissions from motor vehicles are the primary pollutants in cities including Beijing, Hangzhou, Guangzhou and Shenzhen. Thus, reducing vehicle emissions can play an important role in improving air quality. BASF has a broad range of solutions to offer car manufacturers, public transportation providers and individual car owners, to reduce emissions and improve fuel efficiency.

As the global leader in catalysis, BASF has unsurpassed expertise in developing innovative emissions control technologies. Technologies under the EMPRO™ brand address a wide range of needs in the automotive industry. For example, to comply with stringent requirements for particulate matter (PM) such as those in the Euro 6c standard, BASF has



Automatic warehouse at mobile emissions catalysts site in Shanghai.



An updated version of KuaiLePao was launched in 2015.

developed a Four-Way Conversion Catalyst system: in addition to the functionality of the traditional Three-Way Conversion Catalyst, it also removes PM with only one component.

BASF's catalyst systems work for passenger cars and commercial vehicles including trucks. In February 2016, BASF teamed up with SAIC MAXUS Automotive Co., Ltd. in China to supply light duty diesel catalysts for SAIC MAXUS' new commercial vehicle V80. BASF's system enables the new vehicle to meet the strict Euro 6 emission standard so that it can be exported to Europe. The project is the first light duty diesel commercial vehicle application by BASF in China to meet the Euro 6 standard. For diesel-powered light and heavy trucks, BASF also offers its Selective Catalytic Reduction on Filter system that integrates carbon monoxide, hydrocarbon, nitrogen oxide (NOx) and PM reduction into one system.

BASF's products are also found in solutions for individual drivers to improve the fuel economy of their cars and thereby reducing emissions. In China, the fuel additive KuaiLePao contains BASF's proprietary PIBA (polyisobutene amine) with optimized molecular distribution, in order to effectively cleanse the residues that form around various engine components. An updated version of fuel additives known as "KuaiLePao", launched in 2015, now also includes a friction modifier. This component helps reduce the friction between piston rings and the cylinder wall in the combustion chamber, thus leading to lower fuel consumption and emissions.

Better buildings, better cities

- Strategic partnership with Sino-Singapore Tianjin Eco-City
- Building cluster retrofitted in Taiyuan
- Innovations in home furnishings in partnership with Markor

Sustainable construction includes improving the energy consumption, comfort and lifespan of buildings. BASF offers a number of solutions that can contribute to the construction of more environmentally friendly buildings, and is supporting cities across China in their sustainable construction or retrofitting projects under diverse climate conditions.

In 2015, BASF and Sino-Singapore Eco-city in Tianjin signed a framework agreement on a strategic partnership to jointly facilitate sustainable construction, improve air quality and drive water recycling in Tianjin Municipality. One part of this agreement is the construction of the world's tallest Passive House, at 16 floors. A Passive House is a building with ultra-low energy-consumption that only uses "passive" methods, such as natural ventilation and lighting, to create a comfortable indoor environment. BASF offers a wide range of insulation materials, such as Walltite® airtight insulation solution, and Neopor® foam insulation solutions for exterior walls. Water conservation is also a key topic at the Tianjin Eco-city, as it is located in a water-scarce region. The project aims to support Tianjin's efforts to become a pilot "sponge city", which would soak up 60 percent of rainwater into the ground to store and purify it using a permeation system. BASF offers effective infiltration systems such as Elastopave® polyurethane as an alternative to concrete or tar for pavement applications. This solution includes many tiny cavities and as such does not completely seal the ground. For water treatment, BASF provides ultrafiltration technology with nanoscale membranes. Our patented inge® Multibore® membranes, which are just 20 nanometers in diameter, can remove all suspended solids, bacteria and even viruses from the water.

BASF supports a number of projects retrofitting older buildings with innovative products that help reduce their energy consumption and improve comfort. In Taiyuan, Shanxi Province, BASF supports the ongoing retrofit of a 40 million square meter cluster of residential and public buildings, including offices, schools and a university. The aim is to reduce energy usage by 65 percent. BASF contributed its Finestone® exterior finish system, which solves problems



BASF and Sino-Singapore Eco-city in Tianjin aim to facilitate sustainable construction, improve air quality and drive water recycling in Tianjin.

such as alkalization, leakage and cracks that are commonly found in older buildings, while also offering new colors. The other potential solutions to be applied include Neopor and Walltite insulation solutions. BASF's Finestone exterior finish system was also applied in a dormitory project at Nanjing University, Jiangsu Province in 2015.

For construction interiors, BASF offers a number of innovative solutions as well. For example, in 2015, BASF expanded its range of melamine resin foam Basotect® to include a version specifically for use in visible applications: The new Basotect B is white and meets the highest demands when it is used as a sound absorber for optimizing the acoustics of rooms. Another example is BASF's Vinapor®, a lightweight and material-saving solution for the wallboard industry. This foaming agent generates a very low density foam used for gypsum ceiling boards while maintaining the same mechanical strength as traditional products. This saves gypsum resources and cost, and facilitates the installation of the boards on site. Moreover, as it is very lightweight, it dramatically reduces the risk of eventual deformation that is especially rampant in humid environments. Since introduced to the China market in 2014, Vinapor has been well received by many construction material providers.

In 2015, Markor International Home Furnishings Co., Ltd. and BASF signed a strategic partnership agreement to foster the incubation of new technologies and materials. Under the agreement, the two companies will create an innovation platform to explore forward-looking business areas, such as nanomaterials, 3D printing materials and carbon fiber and smart materials. Prior to this new partnership, BASF and Xinjiang Markor Chemical Industry Co., Ltd. have set up two joint ventures in Korla, Xinjiang, to produce BDO and PolyTHF®.

Lightweight for transportation

- Lightweight solutions using BASF's Ultracom™ composite materials
- Elastoflex® E enables mass production of exterior car parts with honeycomb sandwich structure
- World's first top mount with polyurethane bearing and polyamide housing developed for car suspension
- BMW i3 and ultra-lightweight electric scooter made with innovative plastics from BASF

Lighter weight in transportation means less energy consumption and fewer emissions. BASF offers a broad range of polyamide-based solutions suitable for lightweighting in a variety of vehicles.

In May 2015, BASF, together with SAIC Motor Corporation Limited and Shanghai Yanfeng Johnson Controls Seating Co., Ltd., showcased a newly developed lightweight car seat concept. It comprises an all-plastic backrest frame as well as innovative seat pan technologies created jointly by the three partners. BASF's Ultracom – a thermoplastic composite system using continuous fiber reinforced plastics – has been used to replace metal in this lightweight car seat. As a result, the front seats are up to 20 percent lighter, and provide 2.5cm more knee space for second row passengers compared with conventional design. In addition to passenger comfort and weight reduction, BASF's Ultracom also offers



The innovative e-Floater consists of more than 80 percent composite and plastic materials from BASF.

excellent strength, rigidity and toughness that meet stringent regulatory requirements.

Also in 2015, BASF's semi-rigid polyurethane foam system Elastoflex® E enabled the production of a new type of lightweight roof for the new Smart fortwo. The honeycomb technology applied in this roof has previously been used only in the car interior. For exterior components, BASF has adjusted the viscosity and reactivity of Elastoflex E, so that it can be optimally processed in each manufacturing step and shows good adhesion properties. Moreover, the new roof module is around 30 percent lighter than standard roofs on the previous model – but retains the same strength and flexural rigidity.

BASF is expanding its expertise in top mounts to enable car manufacturers to provide an optimal combination of weight savings, pleasant acoustics and vibration dampening. The unique NVH (noise, vibration, harshness) solution was generated by combining two of BASF's plastic specialties: the micro-cellular polyurethane elastomer Cellasto® and a highly glass-fiber reinforced grade of the company's polyamide series Ultramid®. The top mount with the Cellasto element and the Ultramid housing is around 25 percent lighter than conventional aluminum die-cast versions with rubber.

BASF presented the BMW i3 in China in 2015 as an example of how lightweighting with high performance plastics not only helps reduce fuel consumption and CO₂ emissions, but also enables design freedom which leads to innovative solutions. BASF supplied several innovative plastics materials such as Elastolit®, Ultramid and Ultradur® to the BMW i3, as well as technical expertise on the development of backrests for the front seats and key reinforcement parts in the carbon fiber body and the rear seat shell.

Beyond cars, BASF has contributed to the development of the innovative e-Floater, a solar-powered electric three-wheeled scooter that weighs less than 12 kilograms and consists of more than 80 percent composite and plastic materials from BASF. Jointly developed by BASF and German new mobility company Floatility GmbH, the e-floater, presented in 2015, demonstrates the futuristic designs made possible with innovative materials. Various grades of BASF's glass fiber reinforced polyamide Ultramid were applied for most of the e-floater's structure. The reinforcement for front body and deck is made with the new Ultracom composite materials to ensure stability.



The RAW color trend book was recognized by the Hong Kong Design Centre in their international “Design for Asia Awards”.



Premium brand Glasurit® has gained global technical approval from Porsche After Sales Engineering for all Porsche collision repairs.

Color expertise for the automotive industry

- Global color design trend book wins Hong Kong award
- “Mid-night Glimmer” coatings highlight futuristic design of locally-designed Chevrolet-FNR concept car
- Refinish paint solutions provided by BASF for automotive bodyshops

BASF’s comprehensive coatings solutions bring inspiration to car designers in many regions including Asia Pacific, providing local designers with access to the latest global color trends. Every year, the Global Color Design team creates over hundreds of new colors, forecasting automotive color trends around the world. The company annually publishes its *Automotive Color Trends* book exclusively for the automotive industry, encompassing global and regional color trend analysis. In 2015, the latest edition, titled *RAW*, was recognized by the Hong Kong Design Centre in their international “Design for Asia Awards” which honors outstanding designs directed at the Asian market.

With its streamlined body featuring BASF’s exclusive “Mid-night Glimmer” coatings, the electric Chevrolet-FNR concept car by Shanghai General Motors debuted at the Auto China show in Shanghai in April 2015. “Mid-night Glimmer” is a customized color developed by BASF’s color designers from China, in collaboration with the design team

at the design and engineering center of Shanghai General Motors. The unique combination of mysterious black and shiny blue enhances the futuristic design of the Chevrolet-FNR concept car. In 2013, both partners developed a unique Ice Cyan-jade coating for the Buick Riviera concept car.

BASF markets a comprehensive portfolio of paint systems for refinishing vehicles to support automotive bodyshops. Under the R-M® brand, BASF focuses on eco-efficient waterborne basecoats and high-solids paints. Since May 2015, Acura, the luxury brand of Japanese automaker Honda, has been recommending R-M waterborne refinish paints to their bodyshops in China. Glasurit®, the premium refinish paint brand of BASF, has gained global technical approval from Porsche After Sales Engineering for all Porsche collision repairs. In December 2015, BASF launched NORBIN®, extending its brand family into the value-for-money segment in China and Asia Pacific. To help local bodyshops master refinish paint application at the highest level, BASF opened its seventh Refinish Competence Center in Chengdu, Sichuan Province, a new training center for spray paint professionals. As BASF’s first training facility for the automotive industry in western China, it serves as both an education hub and a platform to equip refinish spray paint professionals with the essential knowledge, skills and business savvy to be successful in this highly competitive regional market.

Crop and soil protection for better yields

- Contributing to soil protection in China with biodegradable mulch films made from ecovio®
- Crop protection and education for Chinese farmers
- Endorsing zero pesticide growth in China

Agriculture is constantly facing new challenges: rising production costs, higher standards for environmental protection and the need to feed a growing world population. To operate successfully under these circumstances, farmers need consistent quality and high yields. At the same time, they need to protect the fertility of their land. BASF's solutions help farmers sustainably increase yields and quality of their crops. The company regularly informs and educates farmers in China about the optimal use of its products to ensure they are applied with due care for human and animal health and environmental protection.

A serious problem for farmers is pollution caused by polyethylene (PE) mulch film, especially in the Xinjiang Uygur Autonomous Region, where more than 47 million mu (more than 3 million hectares) of farmland were covered with PE films by late 2014. Large amounts of residual PE mulch film have detrimental effects on soil structure, water and nutrient transport and crop growth. To address this issue, BASF has worked with various stakeholders in China to promote sustainable farming through the use of biodegradable mulch film. In Xinjiang, BASF has conducted a number of field



The cotton field in Xinjiang uses BASF's ecovio® biodegradable mulch film.

tests, applying its biodegradable ecovio® mulch films to several crops including corn, tomato, potato and cotton. These tests demonstrated the excellent mechanical properties, insulation and water retaining properties and good UV radiation resistance of ecovio. Yields harvested at the experimental fields were good, without the soil pollution occurring when conventional PE-based films are applied.

BASF also offers broad ranging support to China's farmers beyond regular crop protection under the AgCelence® brand, to help increase plant health and fitness. Benefits observed when AgCelence products are applied include increased stress tolerance and vitality, higher yields and improved marketable quality. In 2014 and 2015, BASF opened four AgCelence Centers in Guangdong, Yunnan, Shandong and Liaoning Province, which create a platform for communication and knowledge sharing among farmers, retailers, local experts and BASF specialists.

In June 2015, BASF joined a Ministry of Agriculture initiative, "Government-enterprise Joint Promotion of Zero Growth in Pesticide Application Meeting" in Sichuan Province. Representing foreign investors, BASF employees promoted best practices in reducing the growth of pesticide use to zero despite growth in agriculture. At the same time, BASF, the Jintang County crop protection station and major local growers signed a memorandum of cooperation on building a zero pesticide growth demonstration zone. BASF cooperated with Sichuan's Jintang County to provide professional solutions and services to large growers of grape and citrus crops.



BASF offers a wide range of products and education to China's farmers.

Renewable fibers and more sustainable dyeing

- Bio-based PolyTHF® currently being tested with selected partners
- BASF provides various products to improve sustainability in the textile sector
- Cooperation with design university creates fashionable and innovative Ultramid® applications

BASF provides a wide range of solutions to help customers produce fabrics and dye textiles in a more environmentally friendly way, and has achieved several recent advances in fibers based on renewable raw materials.

In 2015, the company started to provide bio-based Polytetrahydrofuran (PolyTHF®) to selected partners for testing various applications on a large scale. The properties and quality of PolyTHF, made with renewable raw materials are identical to those of conventional PolyTHF, which is based on petrochemicals. BASF is the world's leading provider of PolyTHF, which is primarily used to make elastic spandex fibers for a variety of textiles, including underwear, outerwear, sportswear and swimsuits.

BASF's new Ultramid® polyamide is produced with certified renewable raw materials, replacing traditional fossil feedstocks while maintaining the same high performance. In 2015, Taiwanese textile manufacturer Italon became the first company to use this new solution to produce yarns. The use

of bio-based feedstock helps save fossil resources and reduce greenhouse gas emissions.

We also support sustainability in textiles in many other areas. One example is melt-spun elastic fiber made from an innovative grade of BASF's Elastollan® thermoplastics polyurethanes elastomers. This new Elastollan grade can be directly used in the bare yarn knitting process and does not need to be covered with polyethylene terephthalate (polyester) or polyamide yarn first. It thereby improves productivity of the textile production process. High performance Ultramid polyamide allows fibers to achieve deeper shades and improve color fastness when dyeing fabrics. Without any increase in the consumption of dyestuff, and only minor process adjustments, it can significantly reduce dye bath residues, hence reducing waste water. For textile processing steps such as alkali neutralization, BASF's formic acid provides faster neutralization, less odor and unfixed dyes, with lower chemical oxygen demand (COD) than traditional acetic acids.

Sustainable textiles inspire designers. In 2015, BASF invited Savannah College of Art and Design (SCAD) Hong Kong to experiment with Ultramid® Total Fit polyamide, a raw material of polyamide (nylon) fabric. This material provides a great variety of softness levels, comfort stretch and super absorbency. SCAD students from various disciplines were challenged to conceptualize and produce design solutions and marketing concepts for Ultramid Total Fit in Women's Sportswear and Premium Menswear for the Asian market.



Ultramid® Total Fit creates a suede leather effect with less chemical treatment.



SCAD students were challenged to conceptualize design solutions and marketing concepts for Ultramid® Total Fit.

Innovation

Enhanced research capabilities in Greater China

Innovation in chemistry enables economic, environmental, and social development, and thus plays a key role in meeting the needs of Asia Pacific's growing population in a period of rapid development and urbanization. BASF is committed to fostering innovation in this dynamic region by constantly enhancing its local research capabilities. The company's Innovation Campus Asia Pacific (Shanghai) is emerging as an important research hub for the region, where around a quarter of BASF's global research and development (R&D) activities will be located.

Growing research facilities in Greater China

- **Second phase of Innovation Campus Asia Pacific (Shanghai) inaugurated**
- **Global headquarters of BASF's Advanced Materials & Systems Research relocated to Shanghai**

BASF is substantially expanding the scope of its R&D capabilities in Greater China, to bring innovation closer to customers in the region. In November 2015, the second phase of the BASF Innovation Campus Asia Pacific was inaugurated – a €90 million expansion located at BASF's Greater China headquarters in Shanghai's Pudong New Area. The Innovation Campus is the company's largest R&D center in the region and an important part of BASF's global research and development network. The expansion adds new areas such as formulations, chemical processes and engineering in addition to the existing capabilities for advanced materials and systems. Currently, more than 20 research and development teams are working on various innovation projects there, catering to local customers' needs.

In general, the Innovation Campus Asia Pacific aims to foster collaboration among scientists, technical experts, business colleagues and customers. In this way, BASF connects the business community and academic partners to innovate together and co-create solutions for the future.



BASF inaugurated the second phase of Innovation Campus Asia Pacific (Shanghai) in November 2015.

In January 2016, the global headquarters of BASF's Advanced Materials & Systems Research, one of the company's three global research platforms, was established in Shanghai at the Innovation Campus. It was moved from BASF's global headquarters in Ludwigshafen, Germany. The other two global research platforms, Process Research & Chemical Engineering and Bioscience Research, are located in Germany and the United States, respectively. Through this globalization of research, BASF is bringing together innovation ideas from all over the world.

BASF also operates research facilities in other locations in Greater China. In Taiwan, the company operates an R&D center for electronic materials in Taoyuan, which was expanded in 2015 to include three new labs related to research and application testing. BASF also has a Catalyst Engine Lab in Guilin, Guangxi.

Across Asia Pacific, BASF R&D centers in India, Japan, Korea, Singapore and Australia contribute to developing innovative solutions that address the region's challenges of resource efficiency, food and nutrition, and quality of life. The company's R&D centres in Greater China are increasingly linked with these partner institutions in Asia Pacific for ever closer collaboration. Currently, BASF is constructing a new Innovation Campus in Mumbai, India, which will be operational in 2017.

Open innovation through science cooperation

- NAO platform connects BASF and seven leading Asian universities
- Science Symposium in Shanghai brought together leading thinkers on sustainable urban living

BASF places great value on open innovation through close cooperation with leading universities and institutes around the world. To this end, the BASF Innovation Campus Asia Pacific (Shanghai) is creating an effective network to connect BASF with the regional science community. For example, to nurture research cooperation in Greater China, BASF has invested substantially since 1997 into R&D collaboration projects with a number of Chinese universities and relevant research institutions under the Chinese Academy of Sciences.

Another example of this principle is the Network for Advanced Materials Open Research (NAO), a joint platform directed by BASF and seven leading universities and institutes in Greater China, Japan and South Korea. NAO's topic clusters include dispersions and coatings, composite materials, new monomers and new polymers, formulation, performance systems and polymer processing. Since the program's inauguration in 2014, more than 20 PhD and post-doctoral candidates have been conducting research in this framework, supported and advised by a scientific committee comprising BASF experts and six independent professors from the universities. Together with the open research centers JONAS in Europe, as well as CARA and NORA in North America, NAO constitutes an important part of BASF's global academic network.

BASF fosters academic exchanges and discussions on important scientific topics. For example, in November 2015, more than 200 leading scientists and urban planning experts gathered at BASF's Creator Space™ Science Symposium in Shanghai to provide the latest insights on sustainable urban living. The symposium was part of the worldwide Creator Space™ program for the 150th anniversary of BASF, and featured discussions on how to improve the quality of water and housing, enable urban mobility and ensure quality of life in Asia Pacific. Ideas were presented on energy efficient cars,



During BASF's Creator Space™ Science Symposium in Shanghai, scientists and experts exchanged insights and ideas.

smart materials for healthy living, and how to realize comfortable housing in confined spaces.

Nurturing talent through science education

- "BASF Fascinating Chemistry" course for non-chemistry students at PKU

For many years, BASF has been supporting chemical education in Greater China to nurture aspiring young scientists. BASF runs a long-standing successful course at Peking University (PKU) for non-chemistry students called "BASF Fascinating Chemistry". The course, which is open annually to about 200 freshmen from non-chemical backgrounds, includes a series of seminars on various aspects of the chemical industry. It is hosted by experts from BASF and also features 20 renowned scientists from China and other countries, with an aim to arouse students' interest in and passion for chemistry and the chemical industry. Since 2005, "Fascinating chemistry" has been recognized as one of the most popular scientific courses by PKU. One lecture in the course, uses a series of experiments to demonstrate how chemistry exists not just in the lab but is closely linked to our everyday life, showing how new developments in chemistry contribute to improving quality of life.

Innovations from Asia Pacific for the world

With its expanding research scope in Asia Pacific, BASF aims to generate more innovations from the region for the world. In 2015, the BASF Innovation Campus Asia Pacific (Shanghai) generated several new solutions that are now being tested in the market. Much of this research is conducted in close cooperation with partners, institutions and customers across the region.

Successful research cooperation leading the way for 3D printing

- **BASF and Farsoon join forces on selective laser sintering for 3D printing**
- **Polyamide-6 powder for laser sintering processes commercialized**
- **New generation of high-temperature laser sintering machines available on market**

3D printing is gaining prominence in the industrial production of individually shaped plastic parts. One such additive manufacturing method used today is laser sintering: Following a three-dimensional blueprint, a laser draws the shape of an object in a powder such as a polyamide. The material powder hit by the laser beam melts and forms the desired 3D object layer by layer.

Today, many plastic parts are produced through injection molding. 3D printing techniques offer decisive advantages: they enable the production of complex parts, allow individual designs and help lower costs in small series production; development cycles can be vastly accelerated. Materials currently offered in the market do not satisfy the high requirements for industrial applications for functional components. These requirements include, for example, better material stability under high temperature conditions, and mechanical and chemical stress tolerances.

In 2015, BASF joined forces with Chinese company Farsoon, a global leading company in manufacturing laser sintering and selective laser melting machinery, to co-develop solutions for this challenge. In this cooperation, BASF has developed a polyamide-6 (PA6) powder for laser sintering processes. This PA6 powder is now commercially available and future formulations will be developed with partners and

customers for specific applications. Objects made of this innovative material are stronger and more stable under higher heat than objects made of the widely used polyamide-12. BASF's PA6 powder shows good recycling properties: powder not sintered in the production process can be reused to a high degree.

BASF and Farsoon together combine significant industry know-how in 3D-printing, each in their respective fields. The cooperation is an open platform allowing customers to jointly develop solutions for functional applications in regards to materials, equipment and processing. It will help customers successfully implement 3D printing into their production processes and enable them to adapt quickly to challenges in their markets.

New solutions for reducing harmful dust

- **Second generation polymer dispersion for dust suppression and coal coating**
- **New DS 421-X does not contain non-degradable APEO**
- **Alcotac® DS11 wetting solution saves water consumption in dust reduction for construction sites**

Dust is responsible for a number of serious problems such as air pollution and, consequently, lung diseases. In the coal industry, coal dust impacts not only the health of workers but also the performance of equipment and devices. The free flow of air and moisture in coal pile can also cause spontaneous combustion, resulting in serious coal fires. Road dust limits visibility for drivers, damages vehicles and causes pollution-induced illnesses such as asthma or allergies. Minimizing dust is thus an important contribution to public health and safety of industry and transportation.

In 2015, BASF launched its second generation of polymer dispersion DS 421-X, an effective, ready-to-use agent for road dust suppression and coal coating. It was developed in Shanghai, where BASF has a large team for emulsion polymer research serving the regional and global markets.

Compared with the first generation dispersion, developed in Indonesia for the mining industry, the new solution has a better environmental performance, and thus can be applied to more

industries including power generation or road construction. It does not contain Alkylphenolethoxylate (APEO) which is non-degradable and thus may pose harm to human health if discharged in water and soil. Coal coated with DS 421-X maintains a higher quality and minimizes dust and loss of material, damage to machines and equipment, as well as spontaneous combustion and unwelcome moisture absorption or penetration. On the road, it effectively reduces fugitive dust emissions.

Construction dust in the airport may cause not only health issues but even aviation safety concerns. This was the case in the midfield concourse expansion of Hong Kong International Airport. By introducing Alcotac® DS11, a wetting agent for mining, BASF helped the airport effectively suppress dust in haul roads. The new application also saved over 98 percent water consumption of the traditional wetting method. It won the certificate of merit in the “2015 Hong Kong Awards for Industries: Innovation and Creativity”.

Whiter clothes without environmental damage

- Local research cooperation with key customer in China
- High-performance polymer Sokalan® CP 88 developed as alternative to phosphates for powder detergent

In China, water is hard in many places. Powder detergents therefore need auxiliaries that help soften the water. These auxiliaries act as dispersing agents for hard-water salts and thereby reduce scaling on the textiles and the washing machine. In general, they can act as processing aids during detergent production as well as detergent actives under low temperature washing conditions.

The whiteness of clothes is also improved significantly by adding such auxiliaries to the detergent. Phosphate (sodium tripolyphosphate) was the most commonly used auxiliary for a long time. However, phosphate can cause eutrophication when discharged into rivers and lakes, encouraging algal blooms and oxygen depletion. It has therefore been phased out by many countries. The industry is thus in need of new detergent auxiliaries to provide an alternative to phosphate.

To meet this need, BASF collaborated with a key customer in China. The starting point for the innovation was the

company's range of acrylic copolymers of the Sokalan® CP series. Researchers were challenged to eliminate phosphate in the detergent formulation while improving two performance characteristics at the same time: increasing whiteness and inhibiting scaling. The team changed the existing paradigms with respect to molecular weight and composition, and thus managed to develop a polymer that can provide a significant improvement for both whiteness and scaling inhibition, compared to benchmark polymers. The new product, Sokalan CP 88, is now produced at BASF's polymer plant in Shanghai.

The detergent containing Sokalan CP 88 was brought to market in 2015.



Researchers test the detergent to see how well it removes stains.

Environment, health and safety

At BASF we never compromise on safety. This principle is anchored in our strategy and underlines our philosophy in operating our own facilities and dealing with third parties. Environmental protection, health and safety (EHS) as well as security, communication, and energy efficiency are embedded in our global policy, which is applied to operations via our Responsible Care® Management System (RCMS). This policy and the RCMS are based on BASF's strategy and corporate guidelines and are binding for the whole BASF Group. Just as the company applies stringent standards to its own operations, we demand the same high standards of our contractors and suppliers. We choose carriers, service providers and suppliers not just on the basis of price, but also based on their performance in environmental and social responsibility.

Product Stewardship

- Ensuring uniformly high standards worldwide
- Extensive information on our products given to customers and the public

We review the safety of our products all the way from research to production and finally to our customers' use of the products. The aim is to ensure that our products do not endanger people or the environment throughout their life cycle if they are used responsibly and in the manner intended. We provide extensive information on our chemical products to customers and the public, for example through safety data sheets in more than 30 languages, including Chinese. We also include the latest regulatory requirements in China into our product safety system to ensure our Chinese safety data sheets and product safety labels are in compliance with China's regulatory framework.

BASF also operates a Global Trade System which is an internal trade control compliance checks and control system to protect and support our business activities. Under this system, we conduct regulatory compliance checks for every order placed in regard to national laws and international conventions that regulate imports, exports or domestic trade. In 2015, two new sites in Greater China were included in the system.

Transportation and Distribution Safety

- Risk assessments of all transports of raw materials, including dangerous goods
- Regular safety audits of logistics service providers

BASF has strict rules in regard to handling, storage and transportation of our chemical products and raw materials at all stages, including dangerous goods. We regularly assess the risks of transporting raw materials with high hazard potential, using our global guideline which is based on the guidelines of the European Chemical Industry Council.

We stipulate worldwide requirements for our logistics service providers (LSP) and assess them regularly in terms of safety and quality. In 2015, we evaluated some several dozen LSPs in Greater China. In addition to our routine LSP audits, we also conduct spot inspections at LSP sites to ensure implementation of the guideline.

In 2015, we revised our local questionnaires that check the safety standards in the transportation of chemicals and gases on seagoing vessels, to align them with those of the Chemical Distribution Institute in China. Particular emphasis is now placed on crew training.

If an incident occurs despite all preventive measures, we provide swift and specially coordinated assistance worldwide. Our transportation and distribution safety advisors in Greater China work closely with our experts worldwide.



Safety of employees and contractors is of vital importance for BASF.

Occupational Safety

- Comprehensive safety management system both for BASF employees and contractors
- Global Safety Days held across BASF worldwide including China

BASF's global safety programs protect employees, contractors and neighbors. In order to identify workplace risks and create a safer and healthier workplace, all sites use the company's recommended tools, such as Hazard Hunting, Hazard Identification and Risk Assessment, Job Safety Analysis and Permit to Work to identify and evaluate workplace hazards and risks in order to determine appropriate prevention and control measures whenever needed.

Globally, BASF aims to reduce the worldwide lost-time injury rate per million working hours to not more than 0.5 by 2025, and we support this goal in Greater China through activities such as regular training sessions to enhance employees' safety awareness. In 2015, the lost-time injury rate per million working hours for BASF own and leased employees was 0.5. The work-related lost-time injury rate for contractors was at 0.3, lower than the year before (2014: 0.6). There was one contractor fatal accident in 2015.

BASF has set up a comprehensive safety management system for contractors working on its sites, including new compliance audit processes for maintenance contractors and project contractors. In 2015, the company also issued an updated regional guideline for Asia Pacific with more detailed safety requirements for both maintenance and project contractor safety management. In particular, we constantly supervise all contractors in order to ensure that they adhere to BASF's safety standards while they are at our sites.

All BASF employees and contractors in Greater China are encouraged to report any incident and unsafe situation, and these are shared monthly within the team. Every critical incident is recorded in our regional Incident Management System. These reports include the root causes of every incident as well as the lessons learned and measures taken afterwards. This database helps us to identify potential weak points and track all due actions.

In 2015, BASF conducted its annual Global Safety Days program to further advance safety awareness and share best practices among employees worldwide. The program included more than 80 activities that focused on key topics like risk assessment and business travel safety. Several thousand employees and contractors actively participated at more than 30 sites or offices in Greater China.

Lost time injury rate - BASF and leased employees
(per million working hours)

2015	0.5	<div style="width: 50%;"></div>
2014	0.4	<div style="width: 40%;"></div>
2013	0.5	<div style="width: 50%;"></div>

Lost time injury rate contractors
(per million working hours)

2015	0.3	<div style="width: 30%;"></div>
2014	0.6	<div style="width: 60%;"></div>
2013	0.2	<div style="width: 20%;"></div>

Occupational Health

- Worldwide standards for occupational health implemented by global expert network
- Global Health Campaign in 2015 focused on nutrition

At BASF, our global health management serves to promote and maintain the health and productivity of our employees. In our directive and requirements, we stipulate globally mandatory standards for health protection. A global network of experts supports us in their implementation through standardized processes. We regularly conduct audits on occupational medicine and health protection in order to monitor and improve our performance.

We measure our performance in health protection using the Health Performance Index (HPI). This HPI comprises five components: recognized occupational diseases, medical emergency drills, first aid training, preventive medicine and health promotion. Each component contributes a maximum of 0.2 to the total score. The highest possible score is 1.0. Our goal is to reach a value of more than 0.9 every year. With an HPI of 0.97 globally, we were once again able to fulfill the ambitious goal of exceeding 0.9 each year (2014: 0.91).

Our 2015 global Health Campaign centered on nutrition promoted the health of our employees while making a contribution to BASF's voluntary commitment to the United Nations' Global Nutrition Compact. In China our employees can perform self-evaluation on their own nutrition status through shortly answering simple questions, but also can promote their daily dietary knowledge by attending nutrition lectures and reading flyers. On site 'Eatwell Plate Window', 'Calorie I know' as well as 'Health Recipe Contest' programs received enthusiastic participation and praise from our employees. In 2016, the global Health Campaign will focus on heart attack and stroke prevention. The BASF Health Checks introduced in 2013 form the foundation of our global Health Promotion Program and are offered to employees at regular intervals.

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

Process Safety

- Five-step review system helps prevent incidents at all new sites worldwide
- Regular updates of safety systems at all production facilities

When designing a new facility, BASF focuses on incident prevention from the earliest stage of planning. We apply a five-step review system from conception to startup which involves early consideration of the most important aspects of safety and protection of health and the environment. These elements are then monitored during every stage of planning. We use a risk matrix to assess the probability and potential impact of risks, and stipulate appropriate protective measures.

In order to constantly improve the safety at all our production facilities worldwide, we regularly update the safety plans at all of our plants. In plants with a medium to high hazard potential, we review implementation of these concepts in ten-year intervals and document the results in a standardized way. In 2015, BASF conducted regular updates of explosion protection documents at plants in Greater China, as required every five years by corporate guidelines.

Energy

- Energy consumption in Greater China relatively stable despite increased production
- More measures to reduce energy use per ton of product

In 2015, energy consumption of BASF sites in Greater China remained relatively stable despite the startup of new production sites in Chongqing, Guangdong and Taiwan, and expansion projects at several sites. BASF Greater China consumed 544,520 megawatt hours of electricity in 2015 (2014: 442,327 MWh), while steam consumption was reduced to 2,455,558 metric tons (2014: 2,630,049 metric

tons). Fuel consumption for central energy supply decreased to 614,444 MWh in 2015 (2014: 694,802 MWh).

The reduction in steam and fuel consumption resulted mainly from energy saving projects and process optimization. These included projects such as an oxidation reactor steam saving project and a reflux reduction project at sites in Shanghai. A long turnaround period at one Shanghai site also resulted in lower consumption of steam and fuel. Our ongoing strong efforts to improve energy efficiency are expected to result in continuous improvements in the future.

Electricity consumption (MWh)

2015	544,520	
2014	442,327	
2013	420,987	

Steam consumption (metric tons)

2015	2,455,558	
2014	2,630,049	
2013	2,584,327	

Fuel consumption (central power plants and boilers) (MWh)

2015	614,444	
2014	694,802	
2013	820,302	

Emissions to Air

- Greenhouse gas emissions flat in Greater China despite startup of new sites
- Sharp reduction in emissions to air

In 2015 emissions of greenhouse gases (GHG) from BASF's chemical operations in Greater China totaled 0.911 million metric tons (2014: 0.910 million metric tons) – an increase of only 0.1 percent, despite the start-up of new sites in Chongqing, Guangdong and Taiwan, as well as expansion projects at several sites. This mainly resulted from several optimization projects. For example, one Shanghai site saved steam consumption through reflux reduction and a STEAMLOC installation as well as optimization of its cooling water system. The latter brought both savings in power and water consumption. As a result, the site's GHG emissions

Air pollutants¹ (metric tons)

2015	339	
2014	548	
2013	530	

¹ Air pollutants consist of: CO, NO_x, SO_x, NMVOC (Non-methane volatile organic compounds), dust, NH₃, and other inorganic compounds

Greenhouse gas emissions (metric tons of CO₂ equivalents¹)

2015	911,297	
2014	910,355	
2013	918,331	

¹ CO₂ equivalents include: CO₂, N₂O, CH₄, HFC, PFC, SF₆

were reduced by 12 percent in 2015 compared to 2014. Several other sites have also taken various energy saving and GHG emission reduction measures in 2015. One site in Shanghai optimized the aeration system in its waste water treatment plant. Another site in Shanghai optimized its chiller to reduce electricity consumption. One Nanjing site added a pre-heater to optimize steam recovery.

Aside from greenhouse gases, we also measure emissions of other pollutants into the atmosphere, such as carbon monoxide (CO), sulfur oxides (SO_x), nitrogen oxides (NO_x) or ammonia as well as dust or non-methane volatile organic compounds (NMVOC). In 2015, emissions to air from BASF's chemical operations in Greater China totaled 339 metric tons (2014: 548 metric tons), 38.1 percent lower compared to the previous year. This was achieved despite the startup of new production sites in Chongqing, Guangdong and Taiwan, as well as expansion projects at several sites. The sharp decrease mainly resulted from the installation of a Catalytic Thermal Oxidation Unit at one Shanghai site in 2015, which substantially lowered CO emissions. In the new reactor, CO and hydrocarbon are oxidized and converted to carbon dioxide and water. In this way, more than 98 percent of the pollutants is removed from the off-gas. Meanwhile, NO_x was reduced via the process optimization of a feeding system at another Shanghai site. In order to further reduce VOC emissions from our production, several sites in Shanghai, Guangdong and Nanjing have completed a VOC reduction program that comprised measures such as installing regenerative thermal oxidizers, or conducting Leakage Detection and Repair (LDAR). Nearly 10 metric tons of NMVOC were reduced though LDAR alone in 2015.

Water

- Practices at Greater China sites aligned to European Water Stewardship system.
- Slight decrease in water use in Greater China in 2015
- Emissions to water reduced in 2015 through various projects in Shanghai

Water is a fundamental component in our chemical production process. It is used as a coolant, solvent and cleaning agent, as well as to make our products. We are committed to responsible water use at our production sites' water catchment areas and along the entire value chain. To this end, we have set ourselves goals to use water as sparingly as possible, reuse as much as possible and to further reduce emissions to water. We constantly explore new sustainable water management methods, especially in water stress areas.

BASF sites in Greater China thoroughly follow a group directive that sets global standards for all sites worldwide. Since October 2014, BASF has required sites in Greater China to adhere to the standards for sustainable water management established by the multi-stakeholder European Water Stewardship (EWS) Project. BASF sites in water stressed areas in Greater China have now successfully applied their practices to the EWS system.

BASF used 6.0 million cubic meters (2014: 6.0 million cubic meters) of water in Greater China in 2015. It remains flat despite the startup of new production sites in Chongqing, Guangdong and Taiwan, as well as expansion projects at several sites.

The overall decrease in water used for production mainly resulted from process optimization and water recycling or reuse projects at several sites. For example, one site in Shanghai reduced its water supply through steam condensate recycling. A long turnaround period at one Shanghai site also resulted in less consumption.

BASF uses most of the water for cooling purposes, where we recirculate water as much as possible. Most of our sites worldwide have re-cooling facilities that allow water to be reused several times and that reduce the temperature of used

cooling water before it is discharged back into a body of water.

For BASF in Greater China, the water for cooling amounted to 359 million cubic meters in 2015 (2014: 317 million cubic meters). This increase mainly results from a new cooling water tower system in Chongqing which began operation in 2015. However, thanks to recirculation, the actual total water supply was reduced.

In 2015, emissions to water from BASF sites in Greater China were lower in comparison to 2014, despite the startup of new production sites in Chongqing, Guangdong and Taiwan, as well as expansion projects at several sites. Chemical oxygen demand (COD) decreased to 165 metric tons (2014: 169 metric tons). Nitrogen decreased to 12 metric tons (2014: 19 metric tons). Heavy metals remains unchanged at 0.1 metric tons (2014: 0.1 metric tons) despite the expansion of production sites. The reductions of COD and Nitrogen were mainly contributed by several sites in Shanghai which improved their pollutant elimination efficiency through process optimization. The relative decrease in heavy metals was mainly contributed by one site in Shanghai that generated less waste water via process optimization.

Emissions to water: Organic substances (COD) (metric tons)

2015	165	
2014	169	
2013	161	

Emissions to water: Nitrogen (metric tons)

2015	12	
2014	19	
2013	22	

Emissions to water: Heavy metals (metric tons)

2015	0.1	
2014	0.1	
2013	0.1	

Water use in Greater China (million cubic meters)

Water supply			Water use		
2015	6.0				
2014	6.0		1	Production	2.3
2013	6.1		2	Cooling	359
					2014: 2.3
					2013: 312



Although we used 359 million cubic meters of water for cooling and 2.3 million cubic meters of water for production in 2015, thanks to recirculation, our actual water supply was only 6.0 million cubic meters.



Waste

- Waste generation in Greater China slightly reduced, with stable recovery rate
- Regular audits of external waste management companies

We regularly explore ways to prevent waste. If waste is unavoidable, we analyze whether a particular type of waste is suitable for recycling or energy recovery. If no recovery options are available, we dispose of waste in a correct and environmentally responsible manner. In 2015, waste from BASF's operations in Greater China decreased to 68,119 metric tons (2014: 69,757 metric tons), while the recovery rate was kept at 75 percent, a similar level as in 2014. This was achieved despite the startup of new production sites in Chongqing, Guangdong and Taiwan, as well as expansion projects at several sites. BASF continues to put significant efforts in Greater China into waste reduction and recycling. For example, the PolyTHF® plant in Shanghai's Caojing successfully optimized its fumaric acid trap system in 2015. The new system used a stream of heated waste water rather than hazardous caustics to clean the fumaric acid traps that are used to trap excessive acid from the production process. This new system led to a reduction of hazardous waste. Another site in Shanghai improved its sludge dewatering efficiency via optimization of its filter press system. As a result, the total amount of sludge for disposal at this site was reduced by 64 percent.

We regularly carry out audits to inspect external waste management companies to ensure that particularly our hazardous waste is properly disposed of. In this way, we contribute to preventive soil protection and to keeping today's waste from becoming tomorrow's contamination. We closely monitor our sites' soil and groundwater status in Greater China and document this information in a global database.

Waste (metric tons)

Year	Waste (metric tons)	Recovery Rate (%)	Visual Representation	Recovery Rate (%)
2015	68,119	75%		25%
2014	69,757	76%		24%
2013	66,867	76%		24%

■ Amount of waste ■ Amount of recycled waste

Emergency Response

- Emergency Response in Greater China strictly aligned to global BASF guidelines
- Regular emergency drills held across China

In order to further improve the emergency response competence in Greater China, we strictly implement the requirements of the BASF Group directive on emergency response at every site. This is done through emergency response review and fire prevention inspection as well as targeted trainings for members of the respective Site Incident Management Team and the Site Emergency Response Team, supported by BASF Group. Multiple drills at nearly every site in Greater China were held in 2015, with different scenarios including several on hazardous materials emergencies.

BASF also continually expands its off-site emergency response and network, which is based on the concept of mutual aid. Sites provide consultancy, rescue and support to other sites in case of an accident happening during transportation within the region. All accidents are first reported to BASF's Emergency Call Center, which provides 24-hour service to our sites, customers and the public.

We also cooperate with China's State Administration of Work Safety and the China Petroleum & Chemical Industry Federation, of which BASF is a member, to share the company's emergency response experience and to support local authorities in developing their own emergency response and rescue skills in dealing with hazardous chemicals.



Fire engine at a BASF site in Shanghai

Security

- New platform for training employees about information security
- Setting standards for security services in Greater China

We regularly audit and review how measures are implemented for the comprehensive protection of our employees and the company – for example, against loss of knowledge – as well as for the worldwide protection of our sites against third-party interference. Due to the increasing risks associated with the use of information technology, we started a global campaign in 2015 for employees to educate them how to even better protect our company knowledge. At the end of 2015, we began the introduction of a mandatory online training module for information and knowledge protection for all employees.

Particularly for investments and projects in emerging markets, we always analyze potential risks to the security of our employees and then base our decision making on such safety and security-related assessments. As part of all investment projects, we perform comprehensive analyses of potential risks. Business travelers, transferees, and local employees in countries with elevated security risks are informed about appropriate protection measures and individually counseled where necessary. Greater China has implemented the guidelines for BASF travel safety standards with all local employees.

All of our security personnel globally have been instructed on aspects of human rights related to site security, such as the right to liberty and security of a person. We also require all security contractors to always comply with human rights. In 2015, we standardized the use of security services across the Greater China sites in order to increase effectiveness and efficiency.

Promoting Responsible Care in Greater China

- BASF applies Responsible Care goals to entire Group including all sites in Greater China
- Promoting Responsible Care best practices to customers, suppliers and stakeholders in China

BASF follows the Responsible Care code at all of its sites worldwide, including in Greater China. BASF has also introduced additional tools to value chain partners in China to help apply the standard more broadly. Examples include the Responsible Care self-assessment for continuous improvement, the concept of gate checks for all trucks before entering chemical production and storage facilities, as well as the Road Safety & Quality Assessment System which – in collaboration with the Association of International Chemical Manufacturers – provides tools for the safe management of logistics transport service providers.

As a member of the China Petroleum & Chemical Industry Federation (CPCIF) since 2013, BASF has taken a leading role in supporting improved emergency response, public communication and chemical regulatory advocacy. For example, in October 2015, BASF held a CPCIF Emergency Response workshop in Shanghai. In order to exchange BASF Emergency Response know-how as well as to foster further cooperation within the Transport Accident Information and Emergency Response System – a network formed by government entities and companies in Germany – we invited Shanghai Administration of Work Safety delegates to visit BASF Ludwigshafen in 2015.

Our outstanding performance in Responsible Care promotion has been recognized by local governments. In 2015, one BASF site in Taiwan received an award from the local municipal government for its outstanding contribution in this area. Another site in Shanghai was named an “Advanced Enterprise for Energy Saving and Emission Reduction”. A BASF site in Nanjing was nominated by Nanjing Chemical Industry Park as one of 2015’s most advanced units in the area of safety.


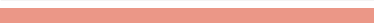



BASF brought its Responsible Care Management System to Greater China more than a decade ago, and employees such as these workers at the Pudong site in Shanghai engage in regular training.

Employees

Employees are the foundation of our excellent performance and ensure our long-term success: their skills, commitment and motivation make BASF competitive and fit for the future. This belief is seen in the tangible efforts and resources the company puts into the development of the employees as well as into company sponsored activities to strengthen the team. As of the end of 2015, BASF had 8,416 employees (2014: 8,033) in Greater China.

Number of employees (as of December 31)

2015	8,416	
2014	8,033	
2013	7,606	

Global Employee Survey

- Third Global Employee Survey conducted in 2015
- High scores in Team and Collaboration, Customer Focus and Innovation

Every three years, BASF conducts a Global Employee Survey (GES), which allows employees to share their opinions on how they see and would like to shape their own working environment. To guarantee anonymity, an external institute collects and interprets the results. In the follow-up process, employees and managers discuss the results, identify “hot topics” and develop solutions for necessary improvements.

Based on the 2012 survey results, many units in Asia Pacific conducted follow-up actions. These included new learning resources and programs that support employee development, innovative workplace designs promoting collaboration and connection, and a new regional job board which provides transparent information to facilitate career moves.

In 2015, employees in China expressed their opinion through this survey. Employees gave positive feedback in areas including Team and Collaboration, Customer Focus and Innovation.

Recruitment and new graduate programs

- BASF recruits talented graduates in mainland China
- Apprenticeship programs for lab technicians and production operators started in Shanghai

BASF offers many attractive positions with a Greater China, Asia Pacific and global focus. In order to encourage the best people to seek out a career at BASF, the company has designed information and recruitment programs in China for experienced professionals as well as fresh graduates.

The BASF “Grow” Graduate Program®, launched in China in 2007, aims to identify and develop talented, passionate and enthusiastic graduates by offering customized training to develop a solid foundation of knowledge and professional skills required for future success. The recruited graduates are assigned to one of three areas: business and functions, manufacturing and engineering, or research and development. They are coached by a dedicated guide and experience different job roles over a period of 24 months. Upon completion of the program, they proceed to a permanent role. Since its inception, several hundred graduates have joined the company through the program. One important element of “Grow” is the popular annual Campus Talk sessions BASF holds at selected universities across the country that attract thousands of participants every year.

In 2015, BASF’s new apprentice program “Roots – Laboratory” started with 29 college graduates who joined BASF to be trained as laboratory technicians. The program includes a six-month internship before graduation, followed by a six-month course at East China University of Science and Technology (ECUST) and six months of on-the-job training at BASF labs in Shanghai. The program aims to recruit qualified college students with a chemistry background and trains them to become reliable lab technicians.

Another program, called “Roots – Operator” was also launched in 2015, in collaboration with Shanghai Petrochemical Academy in the city’s Jinshan district. After one year of studies on production-related topics developed specifically for BASF, the candidates will join BASF sites in Jinshan for a one-year internship. Qualified candidates will then be hired as production operators. The first students started their curriculum in September 2015.

In 2015, BASF and the East China University of Science and Technology (ECUST) in Shanghai launched a full-time Engineering Master Joint Training Program. It aims to develop talented and professional postgraduate students in order to create a sustainable talent pipeline for BASF production sites. The selected students need to complete their first year education at ECUST, after which they join BASF for a six-month internship. There, they receive systematic training as well as individualized coaching. In July 2015, the first group of interns began exploring their potential careers at BASF.

Career development

- **New e-learning module for onboarding program**
- **Structured approach to career development**

Continuous employee development is an essential part of BASF’s Best Team Strategy, which includes programs and processes that support ongoing professional development and accelerated leadership development. Together, these programs foster a development-oriented environment that offers all employees the opportunity and support to actively shape their own professional careers.

Red Carpet, BASF’s onboarding program for all new hires in China, provides a platform and resources to help new employees quickly and easily familiarize with the company. During the 3-6 months of this program, the new employees go through an introduction and welcome session on day one, followed by orientation units, on-the-job training, interaction and teamwork workshops and a wrap-up session. In 2015, an e-learning module has been added to further enrich this program.

BASF’s Leadership Excellence Acceleration Program (LEAP) aims to build up a talent pipeline to support business growth in Greater China. Together with the company’s regional and global leadership programs, LEAP provides a platform to accelerate the development of management capabilities, to systematically identify and develop managers with high potential for management positions, and to better support talent retention in Greater China.

To support employee’s career development at BASF, a



BASF Campus Talks attract thousands of participants every year.

global online platform, SuccessFactors®, was first rolled out in Asia Pacific in 2014, and continued to be rolled out to Greater China in 2015. This system is an easy-to-use platform for managing employee development, performance management and learning activities of employees.

Working at BASF

- **BASF support for managing career and family**
- **Social and leisure programs**

BASF is committed to creating an attractive workplace that balances the needs of our employees with the company’s business requirements. It therefore supports employees in managing family and career, and offers flexible solutions that can be adapted to different life circumstances. The company constantly reviews working conditions at its production sites, including equipment, transportation and working hours.

BASF also offers a number of recreation programs for employees and their family members. For example, “BASF Global Family” is an international vacation exchange program for teenage children of BASF employees worldwide. BASF host families in various countries provide accommodation and activities for their children from other countries, and vice versa. Since 2006, hundreds of teenagers from 30 countries have enjoyed learning about overseas life during their summer holidays. In 2015, teenagers from Greater China participated in the program and stayed with families in Germany, Belgium, the Netherlands and Spain.





BASF’s Joint Trade Union in Shanghai organizes a variety of leisure activities such as Yoga and Tai Chi courses, lectures on parenting and a company badminton team.

Diversity + Inclusion

- Inclusion of diversity is an important component for business success
- BASF offers equal opportunities to all employees

The inclusion of diversity is an important component of BASF's strategic human resources management. It helps continuously improve the team's performance and power of innovation, and increases creativity, motivation and identification with the company – and ultimately to attract and retain the best people. BASF offers equal opportunities to all employees and is committed to the equal treatment of men and women. BASF employees come from all different age groups. In 2015, the largest proportion of employees in Greater China was the age group between 26 and 39 years, the same as in 2014.

Employee age structure (proportion of employees %)

Up to and including 25 years	7.1	
Between 26 and 39 years	62.3	
Between 40 and 54 years	28.3	
55 years and older	2.4	

Employee Care

- BASF's 2015 global health campaign promoted healthy eating habits
- EAP provides emotional support to people in need

BASF operates a number of initiatives to promote a healthy lifestyle and to support employees in need. In 2015, BASF brought its seventh global health promotion campaign to Greater China, with the motto "Mission Nutrition". The campaign provided advice on what constitutes a healthy diet and on how to improve eating habits. As part of the campaign, a BASF canteen at the Pudong site opened an "Eatwell Plate" window that offers healthy meal choices as well as information of a healthy diet. The company also initiated a recipe collection activity and encouraged employees to share their healthy cooking recipes.

BASF's Employee Assistance Program (EAP) offers psychological and emotional support to employees and their families. They can call a round-the-clock hotline which is answered by external qualified professionals and treated with

strict confidentiality. Since it was launched in 2013 in mainland China, EAP has helped many employees around the country. In 2015, EAP workshops were held at BASF locations around mainland China, attended by several hundred employees. BASF has also offered EAP in Taiwan since 2011. There, it provides employees with personal legal, financial and medical counseling in addition to psychological consultation.

Compliance

- BASF expects strong commitment to laws, labor standards and business ethics
- Global Guideline on Business Partner Due Diligence launched in April, 2015

Compliance with national laws and the core labor standards of the International Labor Organization (ILO) forms the basis of BASF's social responsibility. Commitment to the highest standards of legal compliance and business ethics run deeply through the entire organization, as every employee is an ambassador for the company. To this end, the BASF Code of Conduct summarizes important laws and corporate policies that govern the behavior of all BASF employees in their dealings with business partners, office holders, other employees and society. BASF's Chief Compliance Officer manages the implementation of the company's Compliance Management System, supported by 94 compliance officers worldwide, including in Greater China. Employees regularly receive mandatory compliance training which is tailored to the characteristics of the region in which they operate.

BASF particularly encourages its employees to actively and promptly seek guidance on compliance issues if in doubt. For this, they can consult not only their managers but also dedicated specialist departments and company compliance officers. The company has also set up 50 external hotlines worldwide, including in Greater China, which employees can turn to anonymously. Through these means, we ensure that all concerns are processed and answered within a short period of time.

On April 1, 2015, BASF introduced a new global Guideline on Business Partner Due Diligence to assess the compliance-relevant behavior and integrity of BASF's business partners in the downstream supply chain. We furthermore expect all suppliers to know of and act in accordance with our global Code of Conduct.

Society

BASF brings many of its global initiatives for supporting local communities around its sites to Greater China. At the same time, the company also develops local ideas for projects to help people in need. BASF fosters education, science, social projects, sports and cultural events in the neighborhoods where it operates and produces. In our regular dialog sessions, we get to know each other and nurture mutual understanding.

Fun with chemistry at BASF Kids' Lab

- Safe, interactive experiments bring the joy of chemistry to children
- Over 10,000 visits of child participants in six cities of Greater China in 2015

BASF Kids' Lab was first launched in 1997 at the company's headquarters in Germany, to provide an interactive and free-of-charge chemistry laboratory for children aged 6 to 12. At Kids' Lab, children conduct hands-on, safe chemical experiments and learn about how chemistry can be used to benefit the environment and people's daily life. Over the years, the company has brought Kids' Lab to 30 countries around the world, where BASF interns from universities support the program by serving as volunteer instructors.

In Greater China, about 160,000 children have participated in the annual program since its inception in 2002. In 2015 alone, more than 10,000 kids took part in the Kids' Lab sessions in Shanghai, Beijing, Chongqing, Taipei, Kaohsiung



Two young participants doing an experiment at BASF Kids' Lab

and Hong Kong. Experiments in 2015 revolved around the themes of urban living and food. With the "Plant Discovery" experiment, the children learned how to examine plants with a microscope and how to recognize different plants such as cucumbers, tomatoes, rice and melons and how to understand the relationships between plants, insects and diseases. Kids used an iodine solution to detect the Vitamin C content of selected food items. In another experiment called "Keep Cool", participants created insulating systems for ice-cold bottled drinks. In Shanghai, a special Kids' Lab session was held at the Creator Space™ tour in Shanghai in March 2015.

"Connected to Care" employee volunteering program

- Global BASF volunteering contest for projects developed by employees
- Eight winning projects proposed and implemented in Greater China

"Connected to Care" was a global corporate volunteering contest for employees, held in 2015 as an important part of Creator Space™, BASF's program to connect ideas, discussions and activities during its anniversary year. In this competition, employees teamed up with colleagues, friends, family members and a non-profit organization to propose local, charitable projects related to one of the three anniversary themes: urban living, smart energy and food. Around 35,000 employees worldwide voted on more than 500 projects to generate 150 winners.

Eight projects from Greater China were among these winners, and are being implemented with funding from BASF. One project team is working to raise awareness of BASF colleagues at the Pudong site about waste classification, and to train them to separate their waste on office floors. In addition, the project advocates a systemic solution for waste classification and recycling which could be leveraged by other office buildings in Shanghai. Another project, "Hand to Hand" is offering enrichment and recreational activities for children with learning difficulties during the summer holidays. Volunteers offer training courses on painting, clay modeling or music to tap the children's intellectual potential and nurture their hobbies. The project "Play with the sea" teaches children in a fun way how to save the oceans: Volunteers wrote and organised a theatre play on ocean protection, performed together by parents and their kids in January 2016.

Goodwill Teacher program

- More than ten years of voluntary English classes for children with underprivileged parents
- Scholarships granted to teenagers since 2006
- New teaching model launched in 2016

For more than ten years, BASF's "Goodwill Teacher" employee volunteer program has been supporting the "Intellectual Assistance to the Disabled" initiative, organized by the Shanghai Association of Persons with Physical Disability. The initiative helps teenagers with disabled parents who often face challenges at school and cannot afford extracurricular tutoring. BASF employee volunteers offer free oral English classes to these students on weekends.

As an extension of the program, BASF set up a scholarship in 2006, supporting outstanding or impoverished students from this underprivileged group to finance their high school or university tuition. Several hundred students have received these scholarships.

In 2015, BASF was honoured as one of the "2015 Outstanding Collectives for Intellectual Assistance to the Disabled" by the Shanghai Association of People with Physical Disability. In 2016, the program is being further improved by adding new topics to the classes, and by applying a new teaching model including a teacher and an additional facilitator. The aim is to make classes more interactive, and to give students more opportunity to use their English and to apply what they have learned.

BASF Taiwan Volunteer Club

- BASF volunteers join beach clean-up activities
- Support for social welfare organization Kindgarden in Kuanyin

Formed by employees, the BASF Taiwan Volunteer Club runs environmental protection projects and helps people in need in the neighboring community. In 2015, BASF colleagues and their family members participated in two beach clean-up activities, in New Taipei City and Yunlin County. They picked up

more than 150 kilograms of garbage at the two locations.

Near BASF's Kuanyin site, BASF supports Kindgarden, a social welfare organization that provides care for people with intellectual disabilities and teaches them work skills through bakery classes. In 2014, Kindgarden expanded its facilities with support from BASF Taiwan Volunteer Club, which had organized a Charity Fair to raise funds for the new building. BASF Taiwan also donated construction materials for the renovation work in 2015, while employees volunteered to paint fences.



Volunteers in Taiwan clean up garbage on the beach.

BASF Industry Summer Course

- 23 students from Asia attending 2015 BASF Summer Course in Shanghai

Since 2006, BASF has been holding annual summer courses for selected students. In July 2015, 23 PhD or master students from 16 leading universities in Asia attended the 2015 BASF Industry Summer Course in Shanghai. During the three-day program, the students visited BASF Pudong Site, location of the company's Greater China headquarters and the Innovation Campus Asia Pacific (Shanghai). They participated in discussions on various topics and met with BASF employees in different positions. At the end of the program, they presented their ideas on "Urban Living" and innovative solutions for clothing, food, housing and transportation.

In the past ten years, hundreds of students have participated in the BASF Industry Summer Course. It not only enhances BASF's scientific cooperation with universities, but also serves as a window for Asia Pacific students to learn more about BASF.



Students from universities in Asia Pacific at the BASF Industry Summer Course.

Social activities around production sites

- **Community Advisory Panels bring BASF production sites together with neighbors**
- **Support for local social programs**

BASF has set up 84 Community Advisory Panels (CAPs) globally, primarily at larger production sites. Consisting of individuals who live near a chemical facility and who represent the fabric of the local community, a CAP is a forum for open and transparent dialog between citizens and plant management. In Greater China, BASF supports CAPs in Shanghai, Chongqing, Nanjing and Taiwan.

The CAP in Chongqing continued its regular dialog in 2015. In this CAP, established in 2011 when the BASF Chongqing MDI Project had just started construction, 16 voluntary members with various backgrounds from the nearby community are invited to talk to the company representatives two to three times a year. At regular gatherings, the members get briefing sessions on the project and operation status, and discuss topics of special interest to the local community. These include outreach

activities, safety and environmental performance, and job and business opportunities. CAP members are also invited to special events like Open Day events or celebrations of safety milestones.

BASF also supports local communities surrounding its plants. For example, in 2015, the company donated a brand-new hazmat truck – a fire-fighting engine customized to handle different types of hazardous materials – to the public fire-fighting station at Chongqing Changshou Economic and Technological Development Area where BASF's MDI plant is located. In Shanghai, BASF donated a specially-designed environmental protection vehicle equipped with specific instruments to monitor air pollutants to the Shanghai Chemical Industry Park in Caojing. BASF also signed an agreement with Zhuangqiao Township of Shanghai donating RMB 150,000 in support of construction projects for public facilities that will improve the living conditions of local residents.

Also in 2015, BASF shared its Responsible Care® practices with EHS (environment, health and safety) managers at several local companies in Shanghai Jinshan Second Industrial Zone. For the second time, BASF took part in an educational event organized by the Gaoqiao government – this time in a park that it intends to upgrade ecologically. Under the theme “You are the small guardians for protecting the earth”, organizers engaged companies to promote local environmental protection and strengthen environmental education among residents, especially children.

Stakeholder dialog

- **Stakeholder dialog session with NGOs in Shanghai**

BASF regularly conducts stakeholder dialog events in order to proactively enhance mutual understanding and further strengthen its relationship with key stakeholders. In October 2015, BASF invited delegates from 11 Chinese educational and environmental NGOs based in Beijing, Nanjing, Chongqing and Shanghai to the BASF Stakeholder Dialogue in Shanghai. Through open discussions with BASF executives and industry experts, and interactive experiments related to BASF's innovative products that reduce emissions of Volatile Organic Compounds, the dialog helped identify the important topics relevant to current and future needs and the ensuing opportunities for BASF.

Value chain sustainability

BASF puts strong emphasis on sustainable practices along its entire value chain. Throughout the procurement process for raw materials, technical goods and services, and logistics solutions, the company strengthens its suppliers' awareness of BASF's standards and expectations. This in turn helps shape their contribution to the industry as a whole. The company is a member of several international initiatives to promote sustainable supply chains.

Sustainability in procurement

- Global Supplier Code of Conduct
- "Together for Sustainability" initiative

BASF evaluates both new and existing suppliers not only based on economic criteria but also with respect to their environmental, social and corporate performance. The company's Supplier Code of Conduct is based on internationally recognized guidelines, such as the principles of the United Nations' Global Compact, the International Labor Organization (ILO) conventions, and the topic areas of Responsible Care® initiative. Available in 26 languages including Chinese, the Code of Conduct covers environmental protection as well as compliance with human rights, social and labor standards, as well as antidiscrimination and anti-corruption policies.

BASF is a founding member of the "Together for Sustainability" (TfS) initiative, a program by leading international chemical companies that is working towards global standardization of supplier evaluation and auditing. The initiative is developing and implementing a global program for the responsible supply of goods and services and improving suppliers' environmental and social standards. The evaluation process is simplified for both suppliers and TfS member companies by a globally uniform questionnaire. Globally, the initiative's members conducted a total of 2,580 sustainability assessment and 179 audits in 2015, a large proportion of which were conducted in China. Since its inception in 2011, the number of TfS members has grown from six to eighteen.

In China, TfS is expected to play an important role due to the country's extensive supply chains. In 2015, TfS also held a joint conference with the China Petroleum and Chemical Industry Federation (CPCIF) in Shanghai, China, with the goal of enhancing mutual understanding of the challenges associated with sustainability.



BASF and suppliers exchange views on implementing sustainability assessments and audits in China.

Training suppliers on sustainability

- Partnership with ECUST in its second year
- Sustainability training course for 2,000 supplier executives over five years

BASF is working closely with suppliers and supports its procurement partners in applying best sustainability practices in Greater China. One element of this collaboration is the company's partnership with East China University of Science and Technology (ECUST) in Shanghai. Together with ECUST, BASF has been running a "China Suppliers Sustainability Training" course since 2014, which aims to train some 2,000 suppliers across the country within five years. By the end of 2015, more than 500 supplier representatives had attended the one-day course on sustainability.

The curriculum combines topics such as corporate governance and management, environment, health and safety issues, and labor and human rights. The course

allows suppliers to gain access to the tools, experience and insight needed to meet industry standards as well as BASF's expectations. Ultimately, the goal is to raise all suppliers' sustainability performance which in turn will help them to increase their own competitiveness.

Optimizing logistics and distribution networks

- **Project to optimize BASF's distribution network in Greater China**
- **Supply routes shifted away from road to rail and waterway transport to reduce emissions**
- **Container transport to Caojing re-routed through new, nearby port of Dushan**

BASF is continually optimizing its supply and distribution network in Greater China. A good example is the "BUJU project" whose name stems from the Chinese words "bu" and "ju", which together mean "distribution network" and "blueprint". Under this project, five distribution centers have been established to date: Tianjin, Guangzhou, Changchun, Chengdu and Shanghai. BASF is also centralizing cooperation with its preferred logistics service providers. In addition, the BUJU project team has initiated a switch from truck transport to waterway or railway transport. In 2015, thousands of tons of product were transferred from trucks to water transport, resulting in significant reductions in costs and in greenhouse gas emissions.



The BUJU project won BASF Greater China Annual Awards 2015.

BASF has also reorganized the shipment of containers to and from its sites at the Shanghai Chemical Industry Park in Caojing. Previously, containers were discharged at Shanghai's Yangshan port, which is 100 kilometers away, and taken to Caojing by truck. Empty containers were returned to a depot in Waigaoqiao which is even further away.

In 2015, BASF started to use a new port located in Dushan, Zhejiang Province, which is only 35 kilometers away from Caojing. Containers arriving in Yangshan are now transferred to Dushan by barge, greatly reducing emissions. Empty containers are also returned via Dushan. In Guangdong Province, BASF collaborated with a freight forwarder to optimize the route and better leverage train spaces to ship LCL (less-than-container-load) containers to and from Guangzhou, to ensure cost-efficient and timely rail delivery.

Reducing and recycling waste along the value chain

- **Promotion of sustainable solutions on raw material packaging**
- **Recycle byproduct or waste generated from BASF site through value chain analysis**

BASF continually strives to reduce its waste output and to recycle as much as possible along its production processes and value chains. To this end, the company's procurement team in Greater China works with suppliers and BASF sites to promote sustainable solutions along the supply chain.

BASF collaborates with its suppliers to reduce waste in raw material packaging, for example by reusing empty drums used in raw material delivery, or by changing the transport of materials from small packages to bulk. Through value chain analysis, we also identify byproducts or waste generated at BASF sites that we can recycle and therefore save raw material.

Selected prizes and awards

Global 500 Climate Disclosure Leadership Index

CDP, an international organization that analyzes companies' climate protection data, has placed BASF among the leading companies in the world for climate protection reporting. With the highest possible ratings for reporting transparency and completeness, BASF achieved top scores among DAX companies and in the Energy & Materials sector in 2015, thus qualifying for the Climate Disclosure Leadership Index (CDLI) for the eleventh time.



Dow Jones Sustainability Index

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

MEMBER OF

**Dow Jones
Sustainability Indices**

In Collaboration with RobecoSAM

China's Top Employers 2016

For the sixth consecutive year, BASF was recognized as one of China's Top Employers by the Top Employers Institute, one of the world's leading research institutions in the field of human resources, leadership and strategy. The award recognized BASF's achievements across the whole spectrum of human resources management.



Best Corporate Citizenship Award

In 2015 BASF received the "Best Corporate Citizenship" award from the 21st Century News Group for the eleventh consecutive year. BASF was recognized especially for its commitment to employees, environment, resources and society.



Outstanding Contribution of Fortune Global 500 Enterprises in China

In 2015, the influential newspaper *Southern Weekend* included BASF in its annual listing of "Outstanding Contribution of Fortune Global 500 Enterprises in China". The company has thus been included in this list for nine consecutive years. BASF also received the highest ranking among multinational chemical companies.



CSR Excellence in Taiwan

The local business publication *CommonWealth* magazine ranked BASF Taiwan fifth in its annual top ten ranking for "Excellence in Corporate Social Responsibility" in the "multinational companies" category, honoring its long-term commitment to industrial safety culture and environmental protection.



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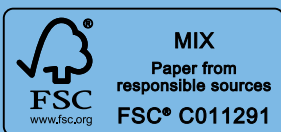
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