# BASF in Korea Report 2017



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Hyunjun Park (right), a process technician, and HyunDuk Cho, a technical engineer at the BASF site in Ansan, Korea, discuss the performance of packaging equipment for POM (polyoxymethylene) production process. 8

On this page: Yaedong Kim, a technical engineer at BASF Electronic Materials R&D Center in Asia Pacific located in Suwon, Korea, examines an electro-plating solution used in semiconductor manufacturing processes.

## BASF Group 2017

#### Chemicals

The Chemicals segment comprises our business with basic chemicals and intermediates. Its portfolio ranges from solvents and plasticizers to high-volume monomers and glues 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 Chemicals¹ (million €)

2017	2016	Change in %
16,331	12,905	27
6,389	5,035	27
6,963	5,189	34
2,979	2,681	11
5,374	3,114	73
4,208	1,953	115
4,233	2,032	108
	16,331 6,389 6,963 2,979 5,374 4,208	16,331   12,905     6,389   5,035     6,963   5,189     2,979   2,681     5,374   3,114     4,208   1,953

#### **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<sup>1</sup> (million €)

	2017	2016	Change in %
Sales	16,217	15,558	4
Thereof Dispersions & Pigments	5,398	5,086	6
Care Chemicals	5,079	4,735	7
Nutrition & Health	1,844	1,932	(5)
Performance Chemicals	3,896	3,805	2
EBITDA	2,427	2,577	(6)
Income from operations (EBIT)	1,510	1,678	(10)
EBIT before special items	1,416	1,777	(20)

#### **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 applications for household, sports and leisure. Our portfolio comprises catalysts, battery materials, engineering plastics, polyurethane systems, automotive coatings, surface treatment solutions and concrete admixtures as well as construction systems like tile adhesives and decorative paints.



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

	2017	2016	Change in %
	20,745	18,732	11
f Catalysts	6,658	6,263	6
Construction Chemicals	2,412	2,332	3
Coatings	3,969	3,249	22
Performance Materials	7,706	6,888	12
	2,251	2,906	(23)
n operations (EBIT)	1,545	2,199	(30)
special items	1,617	1,946	(17)
	Coatings	f Catalysts20,745f Catalysts6,658Construction Chemicals2,412Coatings3,969Performance Materials7,7062,2511,545	20,745   18,732     f Catalysts   6,658   6,263     Construction Chemicals   2,412   2,332     Coatings   3,969   3,249     Performance Materials   7,706   6,888     2,251   2,906     n operations (EBIT)   1,545   2,199

#### **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 for nutrient supply and plant stress.



#### Key data Agricultural Solutions (million €)

	2017	2016	Change in %
Sales	5,696	5,569	2
EBITDA	1,282	1,305	(2)
Income from operations (EBIT)	1,015	1,037	(2)
EBIT before special items	1,033	1,087	(5)

#### Oil & Gas

In the Oil & Gas segment, 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 also active in the transportation of natural gas in Europe.



#### Key data Oil & Gas (million €)

	2017	2016	Change in %
Sales	3,244	2,768	17
EBITDA	2,069	1,596	30
Income from operations (EBIT)	1,043	499	109
EBIT before special items	793	517	53
Net income	719	362	99

On January 1, 2017, the Monomers and Dispersions & Pigments divisions' activities for the electronics industry were merged into the global Electronic Materials business unit and allocated to the Dispersions & Pigments division. For better comparability, the affected figures for 2016 have been adjusted accordingly.

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## About this report

The "BASF in Korea – 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 Korea. The reporting period for this publication is the financial year 2017. 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 fully consolidated joint ventures are reported on a proportional basis, while those accounted according to the equity method are not included. 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, 2017.

## Welcome Letter from the Management

## Dear Stokeholders and Supportors of BASF in Korea,

I am very pleased to present BASF in Korea - Report 2017, our annual overview of BASF's operations in Korea. 2017 was a year with many changes in domestic and international politics, economy, and society. In a volatile market environment in Korea as well as over the world, BASF achieved solid results in Korea, balancing the economic, environmental, and social aspects of our business.

With sales to customers in Korea of approximately €1.2 billion, we continued our strong performance in 2017. Thanks to the high export volume this year, BASF Korea received the 900 million USD export tower award by the Korean government in 2017. We continue to invest in growth in Korea. In 2017, we started operation of a new electronic materials production plant in Yeosu, complementing the regional headquarters of our electronic materials business and our research and development (R&D) center for electronic materials, both in Korea. We also completed the fourth production line of our Ultrason® plant in November 2017. These new production sites are subject to BASF's strict safety management, along with all of our current sites in Korea. We achieved a significant safety milestone at our chemicals site in Ulsan, with 6,333 days injury-free at the end of last year.

BASF's innovative products and solutions continue to contribute to our customers' success and help to meet their sustainability goals. This year, we introduced collaborative innovations together with our customers in Korea in areas such as light-weight utility poles and safe flooring systems.

In Korea, our social engagement efforts support, in particular, the United Nations Sustainable Development Goal #4 (Quality Education). For example, more than 5,100 children have participated in BASF Kids' Lab since 2003. This year we also launched Virtual Kids' Lab in Korean, providing access to this unique chemistry education program anywhere, any time. At BASF, we make a company-wide effort to form the best team, and to develop innovative products and solutions that contribute to our customers' success. By collaborating with

our partners, we grow together: this is how we create

MAN

chemistry.

Jason Woo-Sung Shin Managing Director, BASF Korea



## BASF Group 2017 at a glance

#### **Economic data**

		2017	2016	Change in %
Sales	million €	64,475	57,550	12.0
Income from operations before depreciation and amortization (EBITDA)				
and special items	million €	12,527	10,327	21.3
EBITDA	million €	12,724	10,526	20.9
Amortization and depreciation <sup>1</sup>	million €	4,202	4,251	(1.2)
Income from operations (EBIT)	million €	8,522	6,275	35.8
Special items	million €	194	(34)	
EBIT before special items	million €	8,328	6,309	32.0
Financial result	million €	(722)	(880)	18.0
Income before taxes and minority interests	million €	7,800	5,395	44.6
Net income	million €	6,078	4,056	49.9
EBIT after cost of capital	million €	2,727	1,136	140.1
Earnings per share	€	6.62	4.42	49.8
Adjusted earnings per share	€	6.44	4.83	33.3
Dividend per share	€	3.10	3.00	3.3
Research and development expenses	million €	1,888	1,863	1.3
Personnel expenses	million €	10,610	10,165	4.4
Number of employees		115,490	113,830	1.5
Assets	million €	78,768	76,496	3.0
Investments <sup>2</sup>	million €	4,364	7,258	(39.9)
Equity ratio	%	44.1	42.6	
Return on assets	%	10.8	8.2	
Return on equity after tax	%	18.9	13.3	-
Net debt	million €	11,485	14,401	(20.2)
Cash provided by operating activities	million €	8,785	7,717	13.8
Free cash flow	million €	4,789	3,572	34.1

<sup>1</sup> Amortization of intangible assets, depreciation of property, plant and equipment, impairments and reversals of impairments

<sup>2</sup> Additions to intangible assets and property, plant and equipment (including acquisitions)

#### Value added 2017<sup>3</sup>

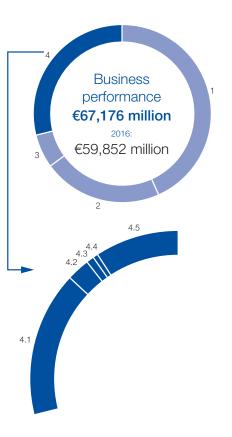
#### Creation of value added (million €)

		2017	2016
	Business performance	67,176	59,852
1	Cost of raw materials and merchandise	(29,224)	(25,450)
2	Services purchased, energy costs and other expenses	(14,520)	(13,658)
3	Amortization and depreciation	(4,202)	(4,251)
4	Value added	19,230	16,493

#### Use of value added

		2017	2016
4.1	Employees	55.2%	61.6%
4.2	Government	8.9%	8.6%
4.3	Creditors	2.9%	4.0%
4.4	Minority interests	1.4%	1.2%
4.5	Shareholders (dividend and retention)	31.6%	24.6%

<sup>3</sup> 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

		2017	2016	Change in %
Research and development expenses	million €	1,888	1,863	1.3
Number of employees in research and development at year-end		10,110	9,966	1.4

#### **Employees and society**

	2017	2016	Change in %
Employees			
Employees at year-end	115,490	113,830	1.5
Apprentices at year-end	3,103	3,120	(0.5)
Personnel expenses million €	10,610	10,165	4.4
Society			
Donations and sponsorship million €	56.0	47.0	19.1

#### Environment, health, safety and security

		2017	2016	Change in %
Safety, security and health				
Transportation incidents with significant impact on the	environment	0	0	0
Process safety incidents	per one million working hours	2.0	2.0	0
Lost-time injuries <sup>4</sup>	per one million working hours	1.4	1.5	(6.6)
Health Performance Index		0.97	0.96	1.0
Environment				
Primary energy use <sup>5</sup>	million MWh	57.3	57.4	(0.2)
Energy efficiency in production processes	kilograms of sales product/MWh	625	617	1.3
Total water withdrawal	million cubic meters	1,816	1,649	10.1
Withdrawal of drinking water	million cubic meters	20.3	20.7	(1.9)
Emissions of organic substances to water <sup>6</sup>	thousand metric tons	14.1	15.9	(11.3)
Emissions of nitrogen to water <sup>6</sup>	thousand metric tons	2.8	2.9	(3.4)
Emissions of heavy metals to water <sup>6</sup>	metric tons	24.8	23.2	6.9
Emissions of greenhouse gases <sup>4</sup>	million metric tons of CO <sub>2</sub> equivalents	22.6	22.0	2.7
Emissions to air (air pollutants)6	thousand metric tons	25.7	26.0	(1.2)
Waste	million metric tons	2.12	2.10	1.0
Operating costs for environmental protection	million €	1,024	1,011	1.3
Investments in environmental protection plants and f	acilities million €	234	206	3.6

<sup>4</sup> The 2016 figure has been adjusted due to updated data.

<sup>5</sup> Primary energy used in BASF's plants as well as in the plants of our energy suppliers to cover energy demand for production processes

<sup>6</sup> Excluding emissions from oil and gas production

### Audits along the value chain

	2017	2016	Change in %
Suppliers			
Number of on-site sustainability audits of raw material suppliers	120	104	15.4
Responsible Care Management System			
Number of environmental and safety audits	109	121	(9.9)
Number of short-notice audits	63	37	70.2
Number of occupational medicine and health protection audits and health performance	_		
control visits	44	30	

## **BASF Group**

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 115,000 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, functional units and corporate and research units support our business

Our 13 divisions are aggregated into five segments based on their business models. The divisions bear operational responsibility and are organized according to sectors or products. They manage our 55 global and regional business units and develop strategies for the 86 strategic business units.

Our regional units are responsible for optimizing local infrastructure, and contribute to tapping our market potential. For financial reporting purposes, we organize the regional divisions into four regions: Europe; North America; Asia Pacific; South America, Africa, Middle East.

Eight functional units and seven corporate units support the BASF Group's business activities. The functional and corporate units provide services in areas such as finance, investor relations, communications, human resources, engineering and site management, as well as environmental protection, health and safety. Our research and development organization has around 10,000 employees in global research units and safeguards our innovative capacity and competitiveness.

Business processes are the shared responsibility of the divisions and the functional units. They closely coordinate the procurement of raw materials and services, production and transport to customers.

#### Sites and Verbund

- Six Verbund sites with intelligent plant networking
- 347 additional production sites worldwide
- Global Technology and Know-How Verbund

BASF has companies in more than 80 countries. We operate six Verbund sites and 347 additional production sites worldwide. Our Verbund site in Ludwigshafen, Germany, is the world's largest integrated chemical complex owned by a single company. This was where the Verbund principle was originally developed and continuously optimized before being implemented at additional sites.

The Verbund system is one of BASF's great strengths. Here, we add value as one company by using our resources efficiently. The Production Verbund intelligently links production units and their energy supply so that, for example, the waste heat of one plant provides energy to others. Furthermore, one facility's by-products can serve as feedstock elsewhere. This not only saves us raw materials and energy, it also avoids emissions, lowers logistics costs and leverages synergies.

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

#### **Procurement and sales markets**

- Around 130,000 customers; broad customer portfolio
- More than 70,000 suppliers

BASF supplies products and services to around 130,000 customers from various sectors in almost every country in the world. Our customer portfolio ranges from major global customers and medium-sized businesses to end consumers.

We work with over 70,000 suppliers from different sectors worldwide. They supply us with important raw materials, chemicals, investment goods and consumables, and perform a range of services. Some of our most important raw materials are naphtha, natural gas, methanol, ammonia and benzene.

#### **Business and competitive environment**

BASF's global presence means that it operates in the context of local, regional and global developments and is bound by various conditions. These include:

- Global economic environment
- Legal and political requirements (such as European Union regulations)
- Trade agreements like the North American Free Trade Agreement (NAFTA)
- Environmental agreements (such as the E.U. Emissions Trading System)
- Social aspects (such as the U.N. Universal Declaration of Human Rights)

BASF holds one of the top three market positions in around 75% of the business areas in which it is active. Our most important global competitors include AkzoNobel, Clariant, Covestro, DowDuPont, DSM, Evonik, Formosa Plastics, Huntsman, SABIC, Sinopec, Solvay and many hundreds of local and regional competitors. We expect competitors from Asia and the Middle East in particular to gain increasing significance 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 the BASF Group Consolidated Financial Statements, 286 companies including BASF SE are fully consolidated. We consolidate eight joint operations on a proportional basis, and account for 35 companies using the equity method.

## Our Strategy

With the "We create chemistry" strategy, BASF has set itself ambitious goals. 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 10 billion people will live on Earth. While the world's population and its demands will keep growing, the planet's resources are finite. On the one hand, population growth is associated with huge global challenges; and yet we also see many opportunities, especially for the chemical industry.

#### Our corporate purpose

#### We create chemistry for a sustainable future

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

We live our corporate purpose by:

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

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

As an integrated global chemical company, we make important contributions in the following three areas:

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

In doing so, we act in accordance with four strategic principles.

#### **Our strategic principles**

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

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

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

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

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

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

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

#### Our focus areas

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

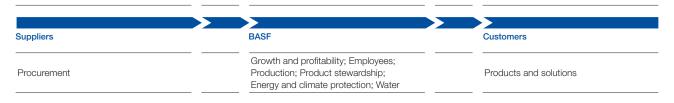
Sustainability is key to the company's long-term success and as such, is embedded into our corporate strategy. We have systematically formulated expectations for our conduct and defined focus areas to meet the growing challenges along the value chain:

- We source responsibly
- We produce safely for people and the environment
- We produce efficiently
- We value people and treat them with respect
- We drive sustainable products and solutions

## Goals

We carry out our corporate purpose, "We create chemistry for a sustainable future," by pursuing ambitious goals along our entire value chain. In this way, we aim to achieve profitable growth and take on social and environmental responsibility. We are focusing on issues where we as a company can make a significant contribution.

#### Goal areas along the value chain



#### Procurement

	2020 Goal	Status at end of 2017
Assessment of sustainability performance of relevant suppliers; <sup>1</sup> development of action plans where		
improvement is necessary	70%	56%

Our suppliers are evaluated based on risk due to the size and scale of our supplier portfolio. We define relevant suppliers as those showing an elevated sustainability risk potential as identified by our risk matrices and our purchasers' assessments. We also use further sources of information to identify relevant suppliers such as evaluations from Together for Sustainability (TfS), a joint initiative of chemical companies for sustainable supply chains.

#### Growth and profitability

As determined in 2015, our aim for the years ahead is, on average, to grow sales slightly faster and EBITDA considerably faster than global chemical production (excluding pharmaceuticals; 2017: 3.5%; average change since 2015: 3.5%), 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.

	2017	Change since 2016	Average change since 2015
Sales	€64.5 billion	12.0%	3.7% <sup>2</sup>
EBITDA	€12.7 billion	20.9%	13.1% <sup>2</sup>
Dividends per share paid out	€3.00	€0.10	
Premium on cost of capital	€2.7 billion		
Free cash flow	€4.8 billion		

<sup>2</sup> Baseline 2015: excluding the gas trading and storage business transferred to Gazprom

#### **Employees**

2021 Goal	Status at end of 2017
22-24%	20.5%
Long-term goals	
Increase in proportion of non-German senior executives (baseline 2003: 30%)	38.9%
Proportion of senior executives with international experience over 80%	84.6%
Systematic, global employee development as shared responsibility of employees and leaders based on relevant processes and tools	Project implemented worldwide
	22–24%   Long-term goals   Increase in proportion of non-German senior executives (baseline 2003: 30%)   Proportion of senior executives with international experience over 80%   Systematic, global employee development as shared responsibility

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

#### Production

	2025 Goals	Status at end of 2017
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	2.0
	Annual goal	
Health Performance Index	>0.9	0.97

#### **Product stewardship**

	2020 Goal	Status at end of 2017
Risk assessment of products that we sell in quantities of more than one metric ton per year worldwide	>99%	76.2%

#### **Energy and climate protection**

	2020 Goal	Status at end of 2017
Coverage of our primary energy demand by introducing certified energy management systems		
(ISO 50001) at all relevant sites⁴	90%	54.3%
Reduction of greenhouse gas emissions per metric ton of sales product (excluding Oil & Gas,		
baseline 2002)	(40%)	(35.5%)

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

#### Water

	2025 Goals	Status at end of 2017
Introduction of sustainable water management at all production sites in water stress areas and at all		
Verbund sites (excluding Oil & Gas)	100%	45.2%

#### **Products and solutions**

	2020 Goal	Status at end of 2017
Increase the proportion of sales generated by products that make a particular contribution to		
sustainable development (Accelerator products)	28%	27.3%

## BASF in the regions

BASF Group sales 2017: €64,475 million; EBIT 2017: €8,522 million







**18,295** Employees<sup>2</sup>



São Paulo

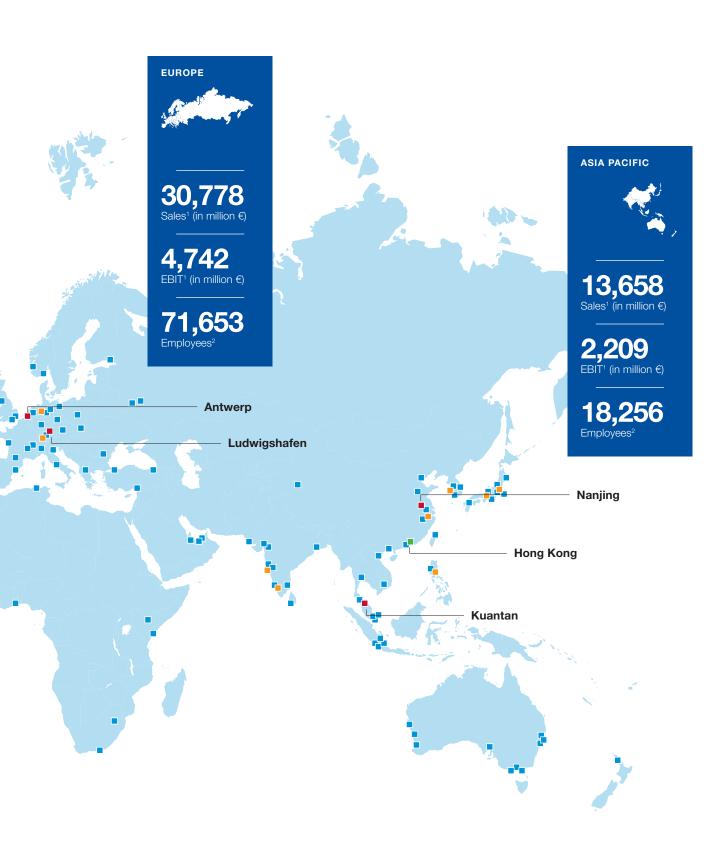
– Geismar Freeport

**Florham Park** 

- Regional centers
- Selected sites
- Verbund sites
- Selected research and development sites

<sup>1</sup> In 2017, by location of company

<sup>2</sup> At year-end 2017



## BASF on the capital market

The BASF share price rose by 3.9% in 2017, trading at  $\notin$ 91.74 at the year-end. We stand by our ambitious dividend policy and paid a dividend of  $\notin$ 3.10 per share – an increase of 3.3% compared with the previous year. BASF enjoys solid financing and good credit ratings.

#### **BASF** share performance

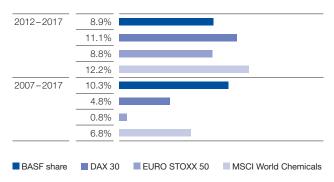
- BASF share gains 3.9% in 2017
- Long-term performance continues to clearly exceed benchmark indexes

The BASF share closed the 2017 stock market year with a closing price of €91.74. This equates to a 3.9% rise in the value of BASF shares compared with the previous year's closing price, which also marked the high for 2016. Assuming that dividends were reinvested, BASF shares gained 7.4% in value in 2017. The benchmark indexes of the German and European stock markets – the DAX 30 and the EURO STOXX 50 – rose by 12.5% and 9.2% over the same period, respectively. The global industry index MSCI World Chemicals gained 23.6%.

The BASF share reached a new high of €97.46 over the course of 2017. Viewed over a 10-year period, the long-term performance of BASF shares still clearly surpasses the German, European and global benchmark indexes. The assets of an investor who invested €1,000 in BASF shares at the end of

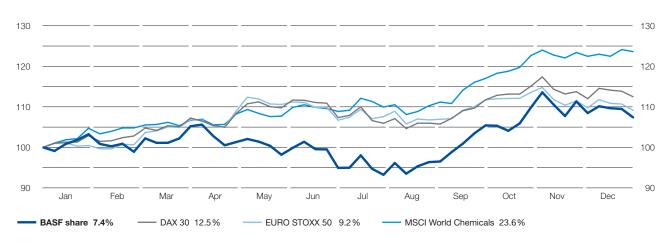
Change in value of an investment in BASF shares in 2017 (With dividends reinvested; indexed) 2007 and reinvested the dividends in additional BASF shares would have increased to  $\in$ 2,676 by the end of 2017. This represents an annual yield of 10.3%, placing BASF shares above the returns for the DAX 30 (4.8%), EURO STOXX 50 (0.8%) and MSCI World Chemicals (6.8%) indexes.

## Long-term performance of BASF shares compared with indexes (Average annual increase with dividends reinvested)



## Weighting of BASF shares in important indexes as of December 31, 2017

DAX 30	8.1%
EURO STOXX 50	3.5%
MSCI World Chemicals	8.6%

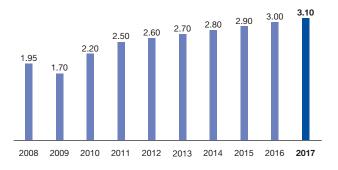


#### Dividend of €3.10 per share

For 2017, BASF paid a dividend of  $\in$ 3.10 per share. We stand by our ambitious dividend policy and paid out nearly  $\in$ 2.8 billion to our shareholders.

Based on the year-end share price for 2017, BASF shares offer a high dividend yield of 3.4%. BASF is part of the DivDAX share index, which contains the 15 companies with the highest dividend yield in the DAX 30. We aim to increase our dividend each year, or at least maintain it at the previous year's level.

Dividend per share (€ per share)



#### Broad base of international shareholders

With over 500,000 shareholders, BASF is one of the largest publicly owned companies with a high free float. An analysis of the shareholder structure carried out at the end of 2017 showed that, at around 20% of share capital, the United States and Canada made up the largest regional group of institutional investors. Institutional investors from Germany accounted for around 11%. Shareholders from the United Kingdom and Ireland hold 12% of BASF shares, while investors from the rest of Europe hold a further 17% of capital. Approximately 29% of the company's share capital is held by private investors, nearly all of whom reside in Germany. BASF is therefore one of the DAX 30 companies with the largest percentage of private shareholders.

#### Shareholder structure (by region, rounded)

			6
1	Germany	40%	5
2	United States and Canada	20%	4
3	United Kingdom and Ireland	12%	
4	Rest of Europe	17%	
5	Rest of world	5%	3
6	Not identified	6%	

2

#### **Employees becoming shareholders**

In many countries, we offer share purchase programs that turn our employees into BASF shareholders. In 2017, for example, 23,700 employees (2016: approximately 24,000) purchased employee shares worth  $\in$ 63 million (2016:  $\in$ 59 million).





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Pipelines at Yeosu site supply raw materials, steam and water. Those facilities play the key part of the MDI production process. Kun-Young Kim(right), a process engineer and Dong-min Seo, a field operator discuss about the process operation. 손잡이 Please

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## **BASF in Asia Pacific**

At a glance

#### Economy

Sales by location of customer in the Asia Pacific region rose by 18% to €14,343 million in 2017 (2016: €12,165 million).

All segments contributed to this growth. The increase was attributable to higher sales prices as well as an increase in volumes. Adverse currency effects impacted sales negatively. Portfolio measures had no material effect on sales development in 2017.

EBIT in the region grew by 101% to €2,209 million. This was primarily due to a higher overall margin and volumes growth in all segments. There was a particularly strong increase in the contribution from the Chemicals segment.

As part of our regional strategy, we want to further increase the proportion of sales from local production in Asia Pacific. We once again made progress toward this goal in 2017: One example is the mobile emissions catalysts production site opened in Chennai, India, in March 2017. In Shanghai, China, we started up a large-scale plant for the production of chemical catalysts in November 2017. We will continue to work on this goal in 2018.

We also inaugurated our new Innovation Campus Mumbai in India which focuses on research in crop protection and specialty chemicals. It represents BASF's largest research and development investment in South Asia to date.

Our investments in production facilities and research serve to bring products to market for our local and global customers in the growing region of Asia.

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



#### BASF EBIT in Asia Pacific (million €) (by location of company)

2017	2,209
2016	1,098
2015	445

#### Environment

Throughout the value chain – in raw material sourcing, in our own operations, and in the solutions we provide to our customers – we aim to address environmental challenges in Asia Pacific.

At the raw material level, for example, the joint initiative established by BASF together with Arkema, Jayant Agro and the non-governmental organization Solidaridad to promote sustainability in the castor oil supply chain continued in 2017. With the Sustainable Castor Initiative – Pragati, the project members aim to improve the economic situation of castor oil farmers and their employees in India by helping them to optimize their yield and reduce the impact on the environment.

Throughout the region, BASF implemented a number of initiatives to support better energy and water efficiency and waste management at the site level. This included initiatives to increase recycling rates as well as increasing the re-use of cooling water.

During 2017, BASF introduced a wide range of solutions that help our customers meet their environmental goals. For example, to help improve indoor air quality, we launched the Acronal<sup>®</sup> ECO 7653 range of next-generation dispersions for interior paint with extremely low levels of volatile organic compounds, as well as Formaldpure<sup>™</sup>, a new catalyst which can rapidly remove formaldehyde from indoor air.

#### **Employees and society**

As of the end of 2017, BASF employed 18,256 people in the Asia Pacific region (2016: 18,156). Of these, 25.9% were female (2016: 26.6%). There were 2,141 new hires in the region in 2017, 24.9% of which were female (2016: 32.1% of 1,733).

#### Number of employees (as of December 31)

2017	18,256	25.9%	74.1%
2016	18,156	26.6%	73.4%
2015	17,562	26.2%	73.8%
Tota	l 📕 of whic	ch female	

Number of new hires (as of December 31)

2017	2,141	24.9%	75.1%
2016	1,733	32.1%	67.9%
2015	1,861	25.1%	74.9%
🔳 🔳 Tota	of whic	h female	

BASF continually develops frameworks to support employees in identifying the most effective individual work practices. Such systems were introduced at BASF more than 20 years ago and are now in place throughout the Asia Pacific region.

## An interview with Sanjeev Gandhi

## Will BASF continue its growth momentum in Asia Pacific?

In 2017, BASF recorded significant sales and earnings growth in Asia across all markets and business segments. Asia Pacific will continue to be the world's largest market for production and consumption of chemicals, but significant challenges remain: volatile markets, fast-changing customer needs, stringent regulatory conditions, and energy and resources scarcity.

Therefore, along with extending our product portfolio through global and regional acquisitions, we are also further expanding our production network in emerging markets including China, India, Malaysia and Thailand. Our planned investments of around  $\in 2.7$  billion between 2018 and 2022 will focus on areas where BASF is technologically leading, has a competitive advantage and expects above-average market growth. Our target remains to increase share of sales from own manufactured products. This will enable us to serve customers in the region quicker and with greater flexibility.

## How can BASF support innovation in Asia Pacific?

We aim to help our local customers to compete and gain a foothold in global markets. Innovation is key to this. We collaborate on innovation with our customers and partners throughout the value chain to offer new solutions that meet their sustainability goals.

We have been continuously expanding our research and development (R&D) footprint in Asia Pacific over the past five years, to drive innovation by integrating customer and market needs at an early stage. In 2017, we established a second Innovation Campus Mumbai in India, coupled with the expansion of the Innovation Campus Shanghai in China, including a new battery materials lab and Automotive Application Center. We also expanded the scope of our postdoctoral center in Asia Pacific, the Network for Asian Open Research (NAO), to include a significantly broader range of university partners and research areas. In close collaboration with our customers and the R&D community in the region, these innovation hubs enable us to better gauge emerging demand and research on tailored solutions for our customers.

#### What opportunities remain in the region?

Asia Pacific is the region where global megatrends – urbanization, need for safe and sustainable food supply, growing energy demand – are most evident. We focus on innovative businesses that contribute to energy efficient vehicles, affordable mass housing, advanced pharmaceutical



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

production, more sustainable packaging and solutions for less resource-intensive agriculture. BASF will support these markets with solutions that meet our customers' sustainability challenges.

#### What are BASF's plans for Korea?

Korea is a strategically important market for advanced components and sophisticated customers especially in the automotive and electronics industries. We aim to serve these customers with investments like our new electronic materials plant, which complements our integrated Asia Pacific electronic materials platform, and our joint venture with Kolon for the production of polyoxymethylene. We are also developing our business targeting Korea's leading industries such as the personal care industry.

Along with continuous investment in our production facilities, BASF collaborates with local customers to develop innovative solutions for a sustainable future. Highly qualified resources and mutual trust, based on long-term relationships between BASF and our stakeholders in Korea, are what creates results.

We will therefore seek further collaboration among customers, colleagues and partners, to look for new ways to enhance excellence in our offerings. By customizing BASF innovations in Korea for our customers' demands, we will help them remain globally competitive.

### Innovation

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 urbanization. BASF is committed to fostering innovation in this dynamic region by constantly enhancing its local research capabilities. In the future, around a quarter of BASF's global research and development (R&D) activities will be in Asia Pacific.

#### Growing R&D capabilities in Asia Pacific

#### Launch of Innovation Campus Mumbai in India

 New Automotive Application Center Asia Pacific to be opened in 2018

BASF has been continuously expanding its research and development footprints in Asia Pacific, to drive innovation by integrating customer and market needs at an early stage. With major R&D sites located in China, India, Japan and Korea, BASF had around 1,160 (2016: 1,100) R&D employees in Asia Pacific by the end of 2017.

BASF operates two Innovation Campuses in Shanghai, China, and Mumbai, India. This concept is unique to Asia Pacific and brings all parties, including R&D, business and production units, to a single integrated site. The Innovation Campuses are integral parts of BASF's global Know-How Verbund, and house global, regional and local R&D projects.

Innovation Campus Shanghai, located at BASF Shanghai Pudong Innovation Park in Shanghai, China, was inaugurated in 2012 and expanded in 2015. In July 2017, a new battery materials lab opened to address the R&D needs of the battery materials market and the fast-growing e-vehicle industry in China. Additionally, a new R&D building began construction in 2017 to house the new Automotive Application Center and the Process Catalyst R&D Center, which will be operational by end of 2018. Innovation Campus Shanghai is the global headquarters of Advanced Materials & Systems Research. It has a broad research portfolio in the areas of advanced materials, chemical process engineering and environmental catalysts. Combining technical development capabilities of the operating divisions, as well as industrial design expertise featured in Asia Pacific Design Center, the Innovation Campus Shanghai serves the innovation demand of almost all major industries.

Also in 2017, BASF inaugurated Innovation Campus Mumbai, with complementary research focusing on crop protection and specialty chemicals. It includes state-of-the-



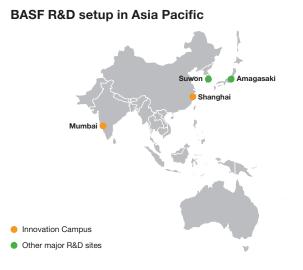
Innovation Campus Mumbai was inaugurated in March 2017.



Researchers work at the battery materials lab at BASF R&D Center Amagasaki, Japan.

art laboratories for chemical synthesis, application and process development, as well as analytics. The Innovation Campus Mumbai brings all new and existing R&D activities in Mumbai under one roof, located next to the office buildings and production plants at the Thane site in Navi Mumbai.

Across Asia Pacific, BASF R&D centers with specialized focus areas contribute to developing innovative solutions that address the region's challenges of resource efficiency, food and nutrition, and quality of life. BASF's R&D Center in Amagasaki, Japan, focuses on developing innovative materials to improve battery performance, while covering other R&D activities in electronics, pigments, plastic additives, packaging and adhesives. The company's R&D Center in Suwon, Korea, specializes in electronic materials development in close collaboration with major customers in Korea and across the region.



#### Asia Pacific R&D sites:

#### **Innovation Campus Shanghai**

 Focus: Advanced Materials, Process Engineering, Environmental Catalysts

#### **Innovation Campus Mumbai**

Focus: Crop Protection, Specialty Chemicals

#### **R&D Center Amagasaki**

• Focus: Electronics, Battery Materials

#### **R&D** Center Suwon

Focus: Electronics

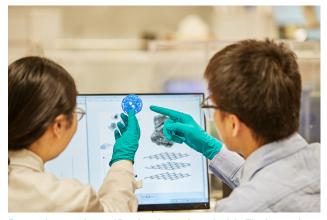
#### Open innovation with academia and industry

- Network for Asian Open Research (NAO) expands topic scope with more partners
- Hosting Innovation Roundtable<sup>®</sup> in Shanghai

BASF places great value on open innovation through close collaboration with academic and industry partners around the world. It maintains a global network of around 600 partners from universities, institutes and companies, forming a key pillar of BASF's global Know-How Verbund.

In Asia Pacific, Network for Asian Open Research (NAO, formerly known as Network for Advanced Materials Open Research) has been a joint platform directed by BASF and leading universities and institutes in the region since 2014. In December 2017, NAO was expanded to include a broader range of university partners and research areas. The network now consists of ten partners from China, Japan and Korea. Areas of collaboration have been extended to cover all technologies under BASF's three global technology platforms, namely, Advanced Materials & Systems Research, Bioscience Research and Process Research & Chemical Engineering.

Since its establishment, BASF and its partners have completed more than 20 joint research projects, with 10 postdoctoral students joining BASF after the projects completion. Currently, NAO projects cover research areas including new monomers and polymers, surfaces and interfaces, zeolites, hybrid materials, coatings, as well as digitalization in R&D.



Researchers analyze a 3D-printed sample at the lab. The Innovation Campus Shanghai houses two 3D printing labs focusing on solutions based on laser sintering process and photopolymer systems.

In September 2017, BASF hosted an event held by the global Innovation Roundtable<sup>®</sup> network at Innovation Campus Shanghai, attracting about 180 innovation managers, R&D experts and executives from many international companies. The two-day roundtable discussion focused on "Design Thinking & Scouting for Start-ups" and "Collaborative Business Model Innovation". Innovation Roundtable is a learning network for best practice sharing, and fosters future collaborations among companies.

## Innovation in Korea

#### Polyurethane composite applications for building and infrastructure

- Partners sign agreement to jointly develop ultra-light utility poles, oil and gas pipes
- Supports growing demand for more durable, lightweight material solutions

BASF's broad competencies in composite materials and technologies offer innovative solutions for infrastructure in the construction industry.

Based on a long customer relationship, BASF and Dong II CNE, Korean pole manufacturing company, entered a strategic Memorandum of Understanding in 2017 to develop innovative, lightweight utility poles and oil and gas pipes, as well as other solutions for advanced infrastructure. BASF and Dong II CNE will also explore other lightweight applications to meet the growing demand for stronger, lighter composite products for the building and infrastructure industries.

Utility poles made with polyurethane, enabled by BASF's unique filament winding technology, are extremely lightweight and robust yet flexible. The poles can withstand severe weather conditions such as typhoons and can be optimized for specific conditions. The ultra-light utility poles with BASF's new material solution will help provide uninterrupted electricity to cities across Asia, especially in areas that are prone to severe weather conditions, such as Philippines, Indonesia, Malaysia, Korea, Japan and Australia.



Extreme bending test for utility pole made with BASF's polyurethane product

## Long lasting indoor and outdoor flooring solution made with natural cork chips

- Durable surface is ideal for public facilities such as playgrounds, schoolyards, trails, and sidewalks
- Alternative to rubber-based materials, with lower environmental impact

BASF and A-Road have co-developed a durable new outdoor and indoor flooring material produced with natural cork chips, which offers an alternative to conventional rubber-based surfaces. The solution consists of a unique mix of high-elasticity binder, developed by BASF, and cork chip flooring materials, developed by A-Road, a Korean paving company.

The new solution offers a lower environmental impact than conventional rubber-based flooring, making it especially suitable for public applications such as children's playgrounds, schoolyards, trails, and sidewalks.

The flooring maintains a low surface temperature of 5.8°C in the summer, and thaws better in winter than conventional rubberized flooring materials. It also has a high deodorization rate. For example, it is capable of deodorizing 100% of ammonia in 60 minutes. It also has an antibacterial power of 99.9% and a tensile strength of 1.7-0.7 MPa, which is higher than the KS standard (0.6 Mpa). In addition, it lasts longer than conventional flooring. Its filtration capacity is excellent for drainage, contributing to its durability.

The flooring solution has been installed in an indoor rock climbing gym in Hanam Starfield, at a children's playground in Gimhae and in the schoolyard of the Seoul Global High School.



The new flooring solution at a Seoul Global High School playground

## **BASF in Korea** At a glance

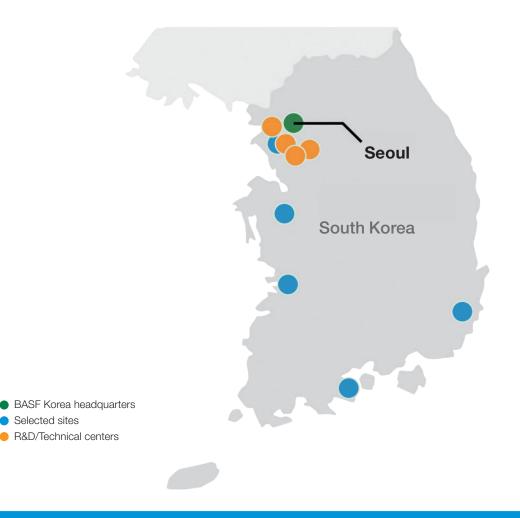
BASF has been a committed partner to Korea since 1954. As a leading foreign investor in the Korean chemical industry, BASF operates eight world-scale production sites in Korea. BASF maintains an R&D center in Suwon and four technical development centers in Korea. The Asia Pacific headquarters of BASF's Electronic Materials business is located in Seoul. BASF posted sales to customers in Korea of approximately €1.2 billion in 2017, and employed 1,154 employees in Korea as of December 31, 2017.

For further information, please visit: www.basf.com/kr

In 2017, BASF's Korean entity, BASF Company Ltd., and BASF Colors & Effects Korea Ltd. became two wholly-owned subsidiaries of BASF SE. BASF Company Ltd. continues to maintain the Asia Pacific regional headquarters of BASF's electronic materials business in Seoul.

Along with the regional sales and marketing organizations, a new electronic materials production plant started operations in Korea in 2017. The new plant produces ultra-pure  $NH_4OH$  (electronic-grade ammonia water) used in the semiconductor and display manufacturing processes.

BASF has also established a joint venture in Korea with Kolon Plastics to manufacture polyoxymethylene, an engineering plastic used in industrial, transportation, construction and consumer markets.



#### BASF in Korea

Sales in 2017 (by location of customer)

Employees (as of December 31, 2017)

€1.2 billion

1,154

### Sites

#### **Seoul Office**

- First activities in 1954
- Provides marketing, sales, human resources and other functions for BASF Korea
- BASF Asia Pacific Electronic Materials Headquarters located in Seoul office
- BASF Colors & Effects Korea (a wholly-owned company of BASF) located in Seoul office since 2016

## BASF Korea Technology Development Center (Dongtan)

- Established in 2015
- Consolidated polyurethane research center and research site for care chemicals and cosmetics
- Develops application systems and provides customer support
- Cellasto<sup>®</sup> testing lab established in 2016

#### **Ansan Coatings Technology Center**

- Established in 2010
- Develops environmentally friendly water-based coatings and coating methods for automotive applications

#### Ansan CAE Technology Center

- Established in 2006
- Develops automotive engineering plastic parts using CAE (Computer Aided Engineering) technology

#### Ansan Engineering Plastics site

- Engineering plastics compounding site acquired from Honeywell in 2003
- Produces engineering plastics
- Supports automotive and electronics sector

#### Siheung Technical Service Center

- Established in 2010
- Researches technologies for pigments business

## BASF Electronic Materials R&D Center Asia (Suwon)

- Established in 2014
- Conducts regional research and development on electronic materials

#### **Gunsan site**

- Established in 2003
- Produces Vitamin B2

#### Yeosu site

- First plants established in 1991 by Hanyang BASF Urethane Co., Ltd.
- Produces raw materials for polyurethanes: MDI (methylene diphenyl diisocyanate), TDI (toluene diisocyanate), CCD (carbonyl chloride derivatives)
- Ultrason<sup>®</sup> plant completed in 2014, first of its kind outside Germany
- Ultra-pure NH<sub>4</sub>OH (electronic-grade ammonia water) plant completed in 2017

#### **Ulsan sites**

#### **Chemicals site**

 Established in 1998 to produce PolyTHF<sup>®</sup>, polyol, and polyurethane system A

#### **Plastics site**

 Established in 1980 by Hyosung BASF Co., Ltd. to produce expandable polystyrene

#### **Pigment site**

- Acquired in 2010 from Daihan Swiss Chemical; produces organic pigments
- Operated by BASF Colors & Effects Korea since 2016

#### Yesan site

- Established in 2015
- Produces engineering plastics for automotive and consumer products

#### Gimcheon site (joint venture)

- Established in 2016
- Joint venture (50:50) with Kolon Plastics
- Produces polyoxymethylene engineering plastics

## **Environment 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. BASF has embraced the goals of the chemical industry's voluntary Responsible Care<sup>®</sup> initiative which covers environmental protection, health and safety (EHS) as well as security and energy efficiency, and applies them to its operations. The Responsible Care Management System (RCMS) is based on BASF's strategy and is binding for the entire BASF Group. Just as the company applies stringent standards to its own operations, we demand the same high standards from 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.

#### **Process safety**

 Strict process safety management during full production life cycle

BASF monitors and updates the safety standards of all production sites in Korea, to ensure continued improvements in safety. Regular reviews are conducted on existing and new process safety rules, which are then classified by potential risk and revisions made accordingly with global and regional BASF expert groups. In 2017, production plants in Yeosu and Ulsan chemical site conducted periodical process safety reviews with BASF global and regional process safety experts.

In line with BASF regulations, an environment, health and safety review is carried out at each level of a new investment and tracking is undertaken for any change in process, employees or procedures made at existing operation sites.



A BASF employee inspects equipment during the production process.

#### Product stewardship

#### Focus on K-REACH compliance

BASF is fully committed to product stewardship, one of the major codes of Responsible Care.

Product stewardship allows BASF to ensure safe and compliant products at production sites and in the marketplace, to manage risks, to limit liability, and to secure competitive advantage by integrating environment, health and safety into business decision-making throughout the product value chain. The core activity of product stewardship is to ensure compliance with the regulations governing chemical products and voluntary management of chemical products.

A new chemical regulation, K-REACH, went into effect in January 2015. With this regulation, the chemical industry in Korea is required to fulfill various higher standards to ensure chemical substances are handled safely. BASF fully complies with these new regulations, and in 2017 took further steps throughout the value chain to meet this target.

#### **Emergency response**

#### Detailed emergency response plans prepared at all sites

BASF prepares and rehearses emergency response plans throughout its operations in Korea, to ensure the efficiency and effectiveness of emergency preparedness and response at any site and any point within the product supply chain.

Plans at operation sites take into account our business partners, suppliers, authorities, communities and neighboring companies.

### Joint training with local fire station

BASF participated in a joint emergency drill at Yeosu site. Under the scenario of a missile explosion at the tank farm, the team practiced treating injuries, detecting hazardous emissions, extinguishing fires, and carrying out remediation work. The team included the national army, police, Yeosu city government and eight major companies from the Yeosu industrial complex.



BASF conducts emergency drills in Korea with management, employees, contractors and regional authorities on a regular basis, at both production sites and offices. In 2017, an emergency drill was conducted at a BASF site in Korea an average of more than once per week.

BASF also operates a 24-hour Emergency Call Center to effectively respond to safety and environment-related accidents connected to BASF or its suppliers in Korea, as well as accidents occurring during transportation of BASF products.

#### Security

- Comprehensive security systems at all sites
- Information Protection Officers at all sites and offices

BASF's security systems are designed to protect the company's assets, including both employees and intellectual property, from associated risks. For example, an Information Protection Officer is designated for each site and office.

Employees of BASF in Korea are trained periodically about security regulations. Additionally, BASF carries out a range of security activities in Korea that include inspections of all sites and offices by a security manager from the local head office, with security training for newcomers and a campaign to enhance security. In 2017, BASF Korea conducted information security campaigns, including distributing a laptop security cable to all employees at BASF in Korea.



An information safety campaign was held at Seoul office to enhance office security.

#### Transportation and distribution safety

- Standard safety procedures and checklist for operations
- Regular audits and training to maintain full adherence with safety standards

In order to reinforce transportation safety, all BASF sites in Korea have in place a standard safety procedure, and a transportation checklist. This covers loading and unloading, filling, discharging and warehousing. BASF conducts a full audit on all transportation vehicles when they enter a BASF site, to ensure the use only of vehicles that fulfill the requirements for safe transportation.

BASF transportation safety experts assess potential transportation contractors in Korea, and the company ceases working with any contractors that fail to meet safety requirements. All transportation contractors are provided with regular audits and training to maintain full adherence with safety standards.



A BASF employee conducts a product inspection before shipment.

#### Water

#### Wastewater risk assessments conducted for all processes

Water is an essential resource for production operation at BASF. In almost all chemical processes contaminated wastewater is generated (remaining raw material, product residue, byproducts, etc.). Chemical production without water is possible only in exceptional cases. Water is not only used as a solvent, but also in production processes including cooling. BASF establishes and operates stricter internal standards than complying with legal standards.

BASF in Korea manages wastewater holistically. Wastewater risk assessments for all processes have been conducted in order to prevent and manage wastewater. BASF separates storm water and wastewater and operates the emergency shut-off facility and water collecting tank to prepare for emergencies.

Emissions of organic substances to water (COD) decreased to 340 metric tons in 2017 (2016: 845 metric tons). Nitrogen emissions to water decreased to 137 metric tons (2016: 196 metric tons). In 2017, these figures did not include the vitamin B2 fermentation residue which is recovered and later upcycled into animal feed mixing components.

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

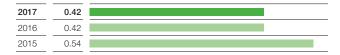


#### Emissions to water (total): Nitrogen (metric tons)

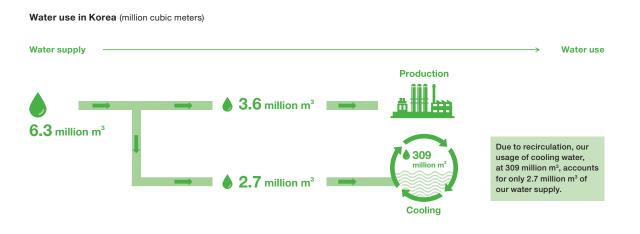


Emissions of heavy metals to water were the same as the previous year, at 0.42 metric tons in 2017 (2016: 0.42 metric tons).

#### Emissions to water (total): Heavy metals (metric tons)



Water used for production rose to 3,620,000 cubic meters in 2017 (2016: 3,540,000 cubic meters). This metric refers to water that has come into contact with products, for example, when used for washing or as a solvent or a reaction medium. Cooling water was 309 million cubic meters (2016: 314 million cubic meters). Due to high levels of recirculation, the total water supply was 6.3 million cubic meters in 2017 (2016: 6.0 million cubic meters).



Water supply (million cubic meters)		Water use (million cubic meters)			
			Production	Cooling	
2017	6.3		3.6	309	
2016	6.0		3.5	314	
2015	5.6		3.2	306	

#### Waste

#### Waste levels maintained despite new production

BASF strives to minimize the impact of our waste on people and on the environment in Korea.

All employees are fully committed to minimizing and recycling the waste produced at all its sites. Each employee must measure, report and sign off on any waste leaving the site.

Waste is classified into sub-groups in order to improve the efficiency of our recycling. BASF carries out audits of its waste treatment contractors to ensure that there is a safe, transparent and fully compliant waste treatment process in place. BASF also provides them with information and training.

In addition, we maximize self-treatment and energy recovery of waste.

In 2017, the total waste reached 40,813 metric tons (2016: 39,826), of which 46% was recycled (2016: 45%). Although a new plant started up in 2017, the increase in the total quantity of waste was relatively small.

#### Waste (total) (metric tons)

2017	40,813	46%	54%
2016	39,826	45%	55%
2015	43,738	50%	50%

Amount of waste Amount of recycled waste



Waste storage house at BASF's site in Yeosu



Incinerator at BASF's production site in Yeosu

#### **Emissions to air**

#### Emissions to air higher with start-up of new production

Greenhouse gas emissions of BASF in Korea slightly increased to 678,347 metric tons in 2017 (2016: 657,683 metric tons) due mainly to the start-up of new production: the fourth production line of Ultrason<sup>®</sup> and the advanced electronic materials plant at our site in Yeosu, as well as the overall increased operations load.

BASF actively manages greenhouse gas emissions through steam conservation and electricity conservation, as well as using waste heat of our plants and neighboring plants.

#### Greenhouse gas emissions (total) (metric tons of CO2 equivalents)1

2016 6	657,683
	,000
2015 6	673,756

<sup>1</sup> CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFC, PFC, SF<sub>6</sub>

BASF reduces air pollutants at the source by using clean fuel gas such as LNG (Liquefied Natural Gas). In addition, we install equipment and facilities for NOx (Nitrogen Oxide) removal, reduction of VOCs (Volatile Organic Compounds) and odor elimination. BASF also conducts 24-hour monitoring at major facilities with the Clean SYS (Clean-System) Chimney Automatic Measuring System.

In 2017, our emissions of air pollutants were 721 metric tons, an increase from the previous year (2016: 564 metric tons), also related to the start-up of new production.

#### Air pollutants<sup>2</sup> (without CH<sub>4</sub>) (metric tons)



 $^2$   $\,$  CO, NO\_x, NMVOC, SO\_x, dust, NH\_3 / other inorganics

#### Energy

- Higher levels of energy use in 2017
- All BASF sites in Korea ISO-50001 certified for energy efficiency since 2014

BASF aims to ensure a resource-conserving, economic and reliable energy supply at all sites in Korea and an efficient use of energy by our operations.

Our approach is designed specifically to support BASF's global commitments to operate our facilities in a responsible manner, to protect the climate through responsible use of energy and to continuously increase energy efficiency.

BASF is working across all sites in Korea to improve energy use and promote better energy management practices using the ISO-50001 framework. All BASF sites in Korea have been certified since 2014.

BASF is also reducing energy consumption by asking energy management corporations and specialized agencies to review the efficiency of energy used in the workplace.

In 2017, steam consumption increased to 1,880,039 metric tons (2016: 1,728,135 metric tons) due to start-up of new plants and an increased operations load.

#### Steam consumption (total) (metric tons)

2017	1,880,039	
2016	1,728,135	
2015	1,796,479	

For the same reason, in 2017, electricity consumption also increased, to 471,276 MWh (2016: 468,733 MWh).

#### Electricity consumption (total) (MWh)

2017	471,276
2016	468,733
2015	462,182

Additionally, there was an increase in fuel consumption from central power plants and boilers compared to the previous year, to 972,372 MWh (2016: 971,185 MWh).

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

2017	972,372	
2016	971,185	
2015	1,002,627	

## **Business development**

BASF has been continuously investing in Korea for 60 years. Through the establishment of a new production plant and by strengthening our domestic production capabilities, BASF continues to improve market competitiveness and to expand our flexibility for local industries.

In November 2017, BASF inaugurated a new electronic materials production plant in Yeosu. BASF also set up an additional line for the Ultrason<sup>®</sup> polyarylsulfone plant at our site in Yeosu to increase the production of high-performance thermoplastics by 6,000 metric tons per year, to a total of 24,000 metric tons per year, serving the growing market demand worldwide.

Sales to customers in Korea in 2017 were approximately  $\in 1.2$  billion,  $\in 100$  million higher than 2016 ( $\in 1.1$  billion).

#### Sales (by location of customer) (million €)

2017	1,201	
2016	1,086	
2015	1,113	

#### Inauguration of Electronic Materials production plant in South Korea

#### Produces chemical solutions used in semiconductor manufacturing processes

BASF started operations at a new electronic materials production plant in Yeosu. The new plant produces ultra-pure  $NH_4OH$  (electronic-grade ammonia water) used in the semiconductor and display manufacturing processes. The facility is currently expanding its production of advanced mixtures for cleaning and etching solutions.

The new plant features an advanced analytics laboratory as well as ultra-pure utilities that are designed to accommodate the future needs of leading electronics customers in the Korea market and abroad.

Located on the southwest coast of Korea, the plant is equipped with BASF's unique, cutting-edge manufacturing facilities including best-in-class quality analysis and quality management systems. Products from Yeosu will primarily be used for next generation microchips designed in single-digit nodes with less than 10 nanometers.

With the establishment of BASF Electronic Materials Asia Pacific Regional Headquarters in Seoul (2013), and the Regional Electronic Materials Research & Development Center Asia in Suwon (2014), the inauguration of the production plant for electronic materials in Yeosu marks a key milestone in establishing an integrated hub to serve the electronics industry. This integrated hub can ensure the fast-track ramp-up of chemical solutions from lab-scale to mass production, provide a reliable supply, and deliver consistent product quality that meets and exceeds the ever-increasing purity requirements for next generation of semiconductor and display technologies.

### BASF Electronic Materials production plant at Yeosu site, Korea

At the new plant, BASF produces electronic-grade ammonia water, a cleaning liquid used in making semiconductors and displays. With the manufacturing processes becoming ever finer and more sophisticated, chemicals that match the required purity levels and molecular unit control are becoming more important.

The ultra-pure process chemicals BASF produces in Yeosu are already capable of delivering the specifications needed to develop next-generation microchips designed in single-digit nodes of under 10 nanometers.



## Neopor<sup>®</sup> celebrates 10 years of production in Korea

- First developed in Germany in 1998, produced today only in Korea and Germany
- Supports the development of energy efficient buildings in Korea

In 1951, BASF introduced Styropor®, the world's first expanded polystyrene raw material for thermal insulation, and in 1998, the company developed the next generation product Neopor, which can replace Styropor. Neopor contains special graphite particles which give it a unique silver-gray color, compared to the white Styropor. Thanks to its improvement of insulation performance by 20% over conventional insulation materials, Neopor has become also widely recognized by Korean consumers.

Since the commercial production began in 2007, domestic sales have grown by more than tenfold. Neopor's accumulated global sales volume has risen to more than one million tons over the last 20 years of worldwide production. By introducing highly efficient thermal insulation materials and technologies to the construction industry, BASF is committed to the development of energy efficient buildings in Korea. Neopor won the Energy Winner Award from Korea National Council of Consumer Organization in 2006. In addition, Neopor received the Minister's Award from the Ministry of Land, Infrastructure and Transport, the Mayor's Award from Seoul Metropolitan government as well as the Presidential Award for its outstanding insulation performance, improved environment properties and compliance with national policy.

#### Strengthened teams serve key customers

- Collaboration with Korea's biggest automotive car makers since 2005
- Cross-divisional BASF teams serve key customers and industries

BASF further developed its cross-divisional customer and industry team structure in 2017 in order to provide customers with access to a broad portfolio of BASF products and solutions.

To become a reliable partner for key Korean customers, BASF aims to leverage not only its wide range of products and solutions but also share best practices for building a strong company culture through our leading position in the market.

BASF's automotive industry team has been operating for nearly ten years. After the co-creation of the new concept car RN 30 in 2016, in 2017 Hyundai Motor Group invited BASF to host a "From Concept to Reality" Tech Day. Over 1,400 engineers, designers and senior managers at its Namyang R&D center participated in this exhibition to experience BASF's innovative automotive solutions for new car development.

In 2017, thanks to the work of the BASF team supporting AmorePacific group, the biggest player in the cosmetics industry in Korea, BASF was nominated as the most outstanding partner for the fourth consecutive year.



At the Hyundai-Kia Tech Fair, a BASF employee demonstrates a color coating panel to researchers from Hyundai and Kia.

#### Sites achieve record production highs

- Ulsan chemicals site achieves one million metric ton production milestone
- Ulsan pigments site achieves record high in annual production of Azo compounds

In 2017, BASF sites in Korea achieved a number of landmarks in production capacity.

The Ulsan chemicals site achieved a milestone for cumulative output, since its establishment, of one million metric tons of polyol. The site also celebrated a record high in annual production of polyol since its establishment in 1998. This was achieved without any safety incident.

Also in 2017, the BASF Colors and Effects pigment site in Ulsan also celebrated its achievement for the highest recorded annual production of Azo compounds recorded since the site was established in 1979.



BASF Colors and Effects pigment site in Ulsan, established in 1979.

#### **BASF** recognized by Korean government

With the high export volume in 2017, BASF Korea was awarded the 900 million USD export tower award by the Korean government, recognizing BASF's contribution to the national economy.



The Export Tower award was granted on the occasion of the 54th Trade Day in Korea.

## **Employees and society**

Employees

Employees forming the "best team" 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 2017, BASF in Korea had a total of 1,154 employees (2016: 1,105).

#### Recruitment

 BASF selected by Job Planet survey as one of Korea's best companies to work for

BASF strives to recruit the most talented workers and leaders all over the world, in order to continue our successful growth. We promote measures to connect and engage employees to ensure BASF remains an attractive employer. This includes various programs designed to support undergraduate students and new recruits.

In 2017, BASF recruited new employees for a variety of roles in Korea, including new graduates for the "Engineer Pool." The Engineer Pool is BASF's unique recruiting program in Korea for new graduates, which provides engineering-based training programs for a maximum of one year at various sites. When sites have a vacant engineer position, the Engineer Pool employees are given priority consideration.

BASF was named one of 2017's best companies to work for in Korea, based on an employee satisfaction survey by Job Planet over the last 12 months. According to the BCW (Best Companies to Work) Index, BASF was rated as one of the 100 companies with the greatest job satisfaction, for its combination of balance of personal and professional life, company culture and employee welfare.

Number of employees (as of December 31)



#### Career development

#### Employee development program provides opportunities for continuous learning

BASF strongly believes in the importance of personal development and continuous learning through personal interaction. We help employees adapt to the changing needs of the global market by integrating on-the-job training with individualized professional development programs. Employees are given opportunities to create their own development programs based on BASF's employee development program, to enhance their professional capabilities.

BASF employees use a 70:20:10 learning and development

model in line with individual development plans to develop knowledge and skills: 70% from job-related experience, 20% from interactions with others, and 10% from formal training activities.



Employees at a training session for the employee development program

BASF regularly provides training programs to all newcomers to help them take the self assessment step and carry out an employee dialog session with their managers. In 2017, sessions were delivered both to employees newly promoted managers. These training sessions bring the importance of open communication culture into the working environment, and awareness of the employee's and the manager's role in their overall career development journey in BASF.

#### Working at BASF

- "Trusted working time" at Seoul Office allows employees to balance work and professional lives
- Employee committee brings fun to the working environment
- Newly-renovated Seoul office provides "open and smart" working space

On the basis of BASF's culture of trust and self-discipline, BASF introduced an innovative working hour system in Seoul office called "trusted working time". Under this system, employees can determine independently the time and duration of their work. This helps employees, including those with family responsibilities, to balance their personal and professional lives.

In 2017, the BASF office in Seoul was renovated to improve the working environment. The office provides an "open and smart" working space for employees to foster communications with colleagues, and make the best use of technology to make work more efficient. Meetings and opportunities for chance communication have been created more often using the collaboration areas.

At BASF production sites in Korea, a wide range of employee committees organize activities for recreation and staff cohesiveness. These include reading clubs, wine clubs, and various sports clubs. The employee committees are supported by BASF management and play an important role in enhancing the working day for BASF staff, bringing fun and exercise to the site environment.



Sports club brings recreational opportunities to employees.

#### Inclusion of diversity

- Creating chemistry by valuing each employee
- Inclusion of diversity workshop held in 2017

Employees are offered equal opportunities at BASF regardless of gender, race, and also age. In 2017, the largest proportion (53.7%) of employees at BASF in Korea was in the 40-54-year-old age group (2016: 56.9%). By valuing and including each individual and their unique strengths, we build an environment where our people can perform at their best and, together, drive sustainable business growth.

To raise awareness of unconscious bias and its impact on personnel decisions, a Inclusion of diversity workshop was held in December 2017. Throughout the workshop, management learned resources and tools for recognizing and responding to bias in an inclusive and effective way.

#### Employee age structure (%) (as of December 31, 2017)

Up to and including 25 years	2.5	
Between 26 and 39 years	34.0	
Between 40 and 54 years	53.7	
55 years and older	9.8	



Inclusion of diversity workshop held in December 2017



Central collaboration area in newly renovated Seoul office

## Occupational health and safety

#### **Occupational health**

- Global "Your Lungs Your Life" campaign
- Health-related training and medical services provided to employees

BASF Corporate Health Management serves to promote and maintain the health and productivity of our employees. Our worldwide standards for occupational health are specified in a directive that is implemented by a global network of experts.

BASF's global focus in 2017 was lung and respiratory health. In Korea, the campaign "Your Lungs – Your Life" was designed to help manage asthma and allergies, reduce smoking and encourage the proper use of respiratory protective equipment. Employees received an individual recommendation based on a self-evaluation, including lung function testing or consultation with a physician as necessary.

BASF health checks form the foundation of our global health promotion program and are offered to employees at regular intervals. BASF also offers training to employees in areas such as CPR (Cardiopulmonary Resuscitation).

### CPR (Cardiopulmonary Resuscitation) training at the Seoul office

The CPR training has been executed at the BASF Seoul office. Through this training, employees are able to become safety officers. BASF has a strong policy that 5% of the office workers and 10% of the site workers should be the safety officers of each locations.

For more information on occupational health, health promotion campaigns and the global Health Performance Index, see basf.com/health



#### Occupational safety

#### 6,333 days without an accident at Ulsan Chemical site

BASF conducts safety training on a regular basis in order to improve safety at its operation sites worldwide. BASF ensures that all its production sites in Korea are safe and clean, and strives to achieve an outstanding environmental, health and safety record.

As of December 31, 2017, the BASF Ulsan Chemical site had achieved 6,333 working days without a lost time injury. On the one hand, BASF works to create a safety culture which is faithful to the basics; on the other hand, we develop frequent safety programs and implement various safety training sessions to strengthen a safety mindset.

In 2017, the lost time injury rate per million working hours for BASF's own and leased employees was 0.4. The workrelated lost time injury rate for contractors was at 0.0, lower than the year before (2016: 1.0).

#### Lost time injury rate – BASF and leased employees

(per million working hours)



#### Lost time injury rate - contractors

(per million working hours)



## Social engagement

Through social engagement at BASF, we aim to contribute to the United Nations Sustainable Development Goals through two approaches: Corporate Citizenship and Starting Ventures. Through our not-for-profit projects, we improve the quality of life of the communities around our sites and worldwide. We also initiate business-oriented projects to improve the quality of life of low-income consumers and value chain partners in developing and emerging countries.

#### **BASF Kids' Lab**

- 20th anniversary of Kids' Lab celebrated with first-ever sessions in Suwon
- Launch of first "Virtual Kids' Lab"

Designed as an interactive, educational program, BASF Kids' Lab enables children in primary schools to learn about the importance of chemistry in everyday life. Safe experiments are chosen which can effectively demonstrate the wonders of chemistry. The number of participants has steadily increased since BASF Kids' Lab was first launched in 2003.

Celebrating its 20th anniversary in 2017, this program helps foster a love of science among children aged 6-12. In 2017, for the first time the event was held in Suwon, where the BASF Electronic Materials Research & Development Center Asia Pacific is located. BASF Kids' Lab provides a wide range of special activities for children, including creative hands-on programs. The programs are designed to raise children's interest and curiosity with easy-to-understand explanations about the chemistry behind the experiments. At the sessions in Suwon, researchers from the BASF R&D center volunteered to guide and teach children as they conducted experiments.

This year, BASF Kids' Lab was held in Yeosu and Ulsan, where BASF's production sites are located.



Students guided by a BASF volunteer teacher conduct the "Slime" experiment at BASF Kids' Lab in Suwon.

Also in celebration of the 20th anniversary of Kids' Lab, BASF launched Virtual Kids' Lab. This interactive online program is designed to help children experience chemistry anytime, anywhere, with ease and fun. Every step contains easy-tounderstand explanations from the animated character "Doctor Bubbles" in order to raise children's interest. The experiments will be updated continuously. With the launch of the Virtual Kids' Lab, it is now possible for children who have not participated in the BASF Kids' Lab event to enjoy the science of chemistry online.

BASF Kids' Lab was first launched in 1997 in Germany, and now takes place annually in about 30 countries around the world. In Korea, the program was first launched in Ulsan in 2003, and has since expanded to Seoul, Yeosu, Ulsan and Gunsan. Over 5,000 children have participated in BASF Kids' Lab in Korea.

### **BASF Virtual Kids' lab in Korean**

The new platform, an extension of BASF's global hands-on chemistry education program Kids' Lab, provides a wide range of interactive experiments online, enabling children to experience the joy of chemistry anytime, anywhere, with ease and fun. With representative 6 experiments, including "The Bubbling Refreshment", "The Red Stain Devil" and "Energy from the Sun", are available online. Each step of every experiment contains easy-to-understand explanations from the animated Kids' Lab mascot Dr. Bubbles. New experiments are continuously added.

To visit Virtual Kids' Lab in Korean, see http://kidslab.basf.com/kr/virtual-lab



#### Donation to environmental education activities

#### Support provided to programs by local NGOs

In 2017, BASF became a member of the "Good Company Club" with a donation to Happybean, Korea's largest online donation platform for social projects. In line with BASF Korea's focus on the United Nations Sustainable Development Goal #4 (Quality Education) we donated KRW 30 million to three education projects supporting environmental protection. These projects were implemented by the Korea Environment Education Association, the Korea Environmental Education center and the Environment Action Association.

With BASF's support, more than 450 children in island areas, with limited opportunities for supplementary curriculum, participated in programs about environmental protection. In another project, 100 volunteers gathered to make 4,200 bars of natural soap, and provided the soaps to underprivileged children and the aged during the project. The third project provided the resources for 20 single parents and their children to attend an educational puppet show and camp about environmental protection, in which 40 young people were trained to monitor river pollution.



Korea Environment Education Association visits island schools.

해피빗 기부 펀딩 정기저금 캠페인

#### 세상과의 더 좋은 '케미스트리'를 만들어 갑니다

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후원 모금함 기업 임직원이 함께 참여하는 모금함입니다.







Through the Happybean "Good Company Club" BASF donated to three social projects.

#### **Community Advisory Panels**

BASF understands the importance of engaging with the local communities where BASF's production sites are located. In 2003, BASF introduced its first Community Advisory Panels (CAPs) in Korea to promote dialog among community members in the vicinity of BASF production sites. BASF was the first company in Korea to support the establishment of such a group. BASF works with the CAP and provides clear information which enables effective discussion. BASF supports CAPs at many production sites around the world. Each CAP consists of members of the local community, such as environment, health, and safety experts, university professors, medical doctors, and community leaders.

In 2017, the CAPs at BASF sites in Korea focused on safety and collaboration among companies at the Yeosu Industrial Complex. BASF environmental and health protection campaigns at the site have set an example for the other companies within the complex.

The CAP at BASF's site in Yeosu publishes a quarterly newsletter titled "Love Environment, Love Safety" to enhance public understanding of environment, health and safety issues.

#### Social activities at local sites and offices

- Disaster relief donation following fire at Yeosu fish market
- Kimchi making in Seoul, Yeosu and Ulsan
- Collaboration artwork with people with disability

BASF maintains production sites in cities including Ulsan, Yeosu, Gunsan, Ansan and Yesan. The company and local communities have built strong relationships over the long term, and cooperate with each other to build sustainability practices and address social needs. For example, employees in the BASF head office in Seoul, as well as in Yeosu and Ulsan, where BASF sites are located, regularly make kimchi and donate it to those in need.

In 2017, BASF donated KRW 50 million to Yeosu city for immediate restoration activities following the Yeosu fish market fire, and to support local merchants.

Local office outreach projects in 2017 also included the production of corporate souvenirs and stationery featuring artwork by people with disabilities.



BASF employees in Yeosu volunteering at an elderly welfare center

## BASF employees working at Dongtan Technology Development Center

1

BASF Dongtan Technology Development Center provides holistic support with its application systems to customers in Korea. Employees conducted polyurethane research and testing for care chemicals and cosmetics. In 2016, BASF opens Cellasto<sup>®</sup> testing lab in this consolidated technology center.

## **BASF Group ten-year summary**

Million €		2008	2009	2010	2011	2012 <sup>1</sup>	2013 <sup>2</sup>	2014	2015	2016	2017
Sales and earnings											
Sales		62,304	50,693	63,873	73,497	72,129	73,973	74,326	70,449	57,550	64,475
Income from operations (EBIT)		6,463	3,677	7,761	8,586	6,742	7,160	7,626	6,248	6,275	8,522
Income before taxes		5,976	3,079	7,373	8,970	5,977	6,600	7,203	5,548	5,395	7,800
Income before minority interests		3,305	1,655	5,074	6,603	5,067	5,113	5,492	4,301	4,255	6,352
Net income		2,912	1,410	4,557	6,188	4,819	4,792	5,155	3,987	4,056	6,078
Income from operations before depreciation and amortization (EBI	TDA)	9,562	7,388	11,131	11,993	10,009	10,432	11,043	10,649	10,526	12,724
EBIT before special items		6,856	4,852	8,138	8,447	6,647	7,077	7,357	6,739	6,309	8,328
EBIT after cost of capital		1,621	(226)	3,500	2,551	1,164	1,768	1,368	194	1,136	2,727
Capital expenditures, depreciati and amortization	on										
Additions to property, plant and equipment and intangible assets		3,634	5,972	5,304	3,646	5,263	7,726	7,285	6,013	7,258	4,364
Thereof property, plant and equipment		2,809	4,126	3,294	3,199	4,084	6,428	6,369	5,742	4,377	4,028
Depreciation and amortization of p plant and equipment and intangible	1 3,	3,099	3,711	3,370	3,407	3,267	3,272	3,417	4,401	4,251	4,202
Thereof property, plant and equipment		2,481	2,614	2,667	2,618	2,594	2,631	2,770	3,600	3,691	3,586
Number of employees											
At year-end		96,924	104,779	109,140	111,141	110,782	112,206	113,292	112,435	113,830	115,490
Annual average		95,885	103,612	104,043	110,403	109,969	111,844	112,644	113,249	111,975	
Personnel expenses		6,364	7,107	8,228	8,576	8,963	9,285	9,224	9,982	10,165	10,610
Research and development expenses		1,355	1,398	1,492	1,605	1,732	1,849	1,884	1,953	1,863	1,888
Key data											
Earnings per share <sup>3</sup>	€	3.13	1.54	4.96	6.74	5.25	5.22	5.61	4.34	4.42	6.62
Adjusted earnings per share <sup>3</sup>	€	3.85	3.01	5.73	6.26	5.64	5.31	5.44	5.00	4.83	6.44
Cash provided by operating activities <sup>4</sup>		5,023	5,693	6,460	7,105	6,602	8,100	6,958	9,446	7,717	8,785
EBITDA margin	%	15.3	14.6	17.4	16.3	13.9	14.1	14.9	15.1	18.3	19.7
Return on assets	%	13.5	7.5	14.7	16.1	11.0	11.5	11.7	8.7	8.2	10.8
Return on equity after tax	%	17.0	8.9	24.6	27.5	19.9	19.2	19.7	14.4	13.3	18.9
Appropriation of profits											
Net income of BASF SE⁵		2,982	2,176	3,737	3,506	2,880	2,826	5,853	2,158	2,808	3,130
Dividend		1,791	1,561	2,021	2,296	2,388	2,480	2,572	2,664	2,755	2,847
Dividend per share <sup>3</sup>	€	1.95	1.70	2.20	2.50	2.60	2.70	2.80	2.90	3.00	3.10
Number of shares as of December 31 <sup>3,6</sup>	million	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5

<sup>1</sup> We have applied International Reporting Standards IFRS 10 and 11 as well as International Accounting Standard 19 (revised) since January 1, 2013.

Figures for 2012 have been restated; no restatement was made for 2011 and earlier.

<sup>2</sup> Figures for 2013 have been adjusted to reflect the dissolution of the natural gas trading business disposal group.

 $^{\scriptscriptstyle 3}$   $\,$  We conducted a two-for-one stock split in the second quarter of 2008.

<sup>4</sup> Includes the change in reporting from 2009 onward of the effects of regular extensions of U.S. dollar hedging transactions

 $^{\scriptscriptstyle 5}$  Calculated in accordance with German GAAP

<sup>6</sup> After deduction of repurchased shares earmarked for cancellation

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