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18

ANNUAL REPORT

LANXESS AT A GLANCE

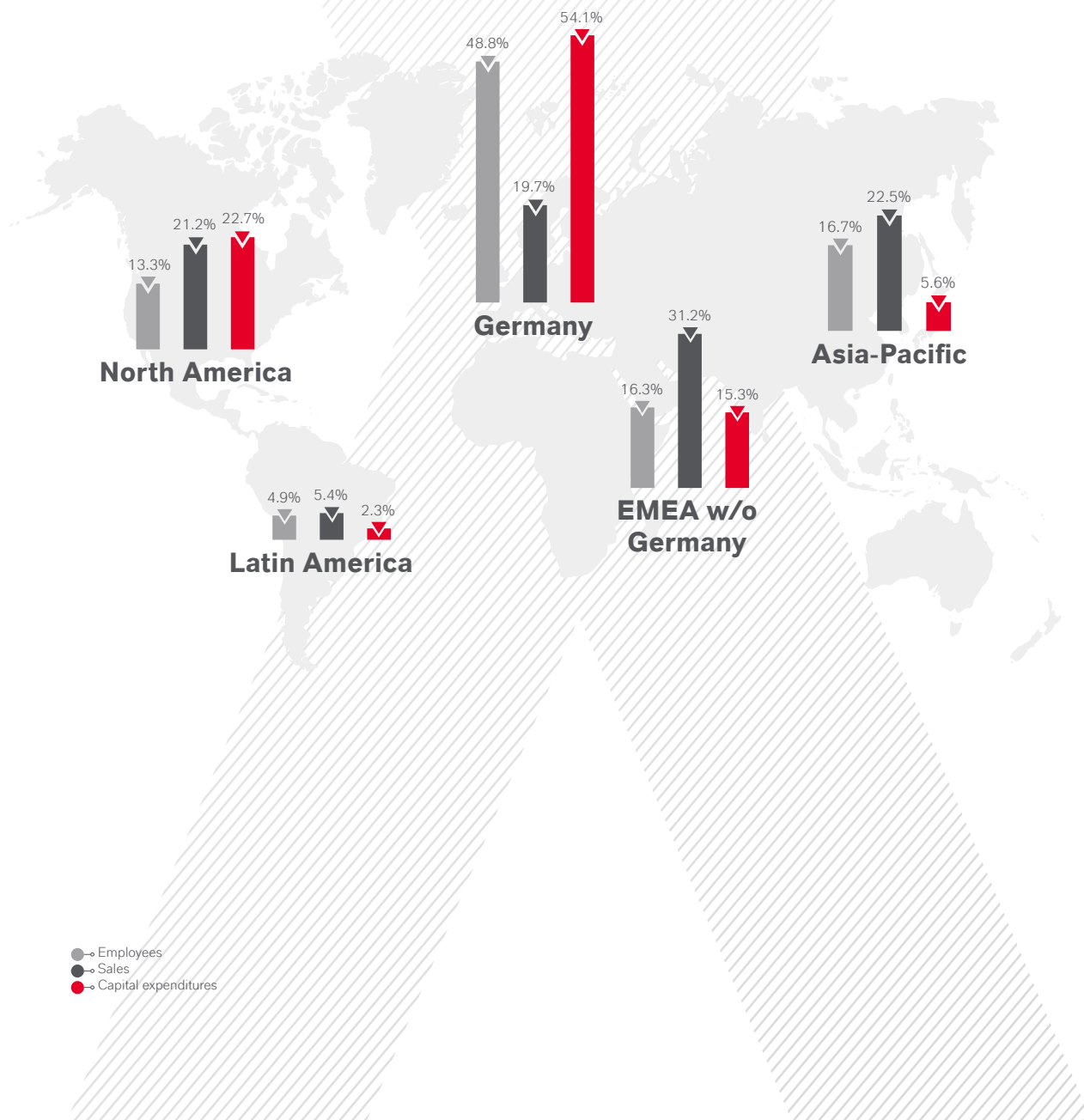
Group Structure

Segments	Advanced Intermediates	Specialty Additives	Performance Chemicals	Engineering Materials
Business units	Advanced Industrial Intermediates — Saltigo	Additives — Rhein Chemie	Inorganic Pigments — Material Protection Products — Leather — Liquid Purification Technologies	High Performance Materials — Urethane Systems
Applications	<ul style="list-style-type: none"> › Agrochemicals › Automotive › Construction › Aroma and flavors › Pharmaceuticals › Tire chemicals › Semiconductors and photovoltaics 	<ul style="list-style-type: none"> › Plastics and rubber additives › Phosphorus-based and brominated flame retardants › Lubricants 	<ul style="list-style-type: none"> › Disinfection › Protection and preservation of wood, construction materials, coatings and foodstuffs › Color pigments › Materials for leather production and water treatment 	<ul style="list-style-type: none"> › Automotive › Construction › Medical technology › Electrical/electronics › Mining › Tires and wheel › Oil and gas › Industrial and mechanical products
Market positions	Europe no. 1–2	Top 3 position	No. 1–4 in niches	Leading position

GLOBAL PRESENCE

LANXESS
AT A GLANCE

GLOBAL
PRESENCE



KEY DATA

2018

LANXESS Group

€ million	Q4 2017	Q4 2018	Change %	2017	2018	Change %
Sales	1,635	1,766	8.0	6,530	7,197	10.2
Gross profit	395	385	(2.5)	1,734	1,834	5.8
Gross profit margin	24.2%	21.8%		26.6%	25.5%	
EBITDA pre exceptionals ¹⁾	179	179	0.0	925	1,016	9.8
EBITDA margin pre exceptionals ¹⁾	10.9%	10.1%		14.2%	14.1%	
EBITDA ¹⁾	147	166	12.9	709	935	31.9
Operating result (EBIT) pre exceptionals ¹⁾	72	68	(5.6)	558	595	6.6
EBIT ¹⁾	40	45	12.5	299	504	68.6
EBIT margin ¹⁾	2.4%	2.5%		4.6%	7.0%	
Net income (loss)	(49)	99	> 100	87	431	> 100
from continuing operations	(49)	19	> 100	60	277	> 100
from discontinued operations	0	80	> 100	27	154	> 100
Earnings per share (€)	(0.54)	1.08	> 100	0.95	4.71	> 100
from continuing operations	(0.54)	0.21	> 100	0.66	3.03	> 100
from discontinued operations	0	0.87	> 100	0.29	1.68	> 100
Earnings per share from continuing operations adjusted for exceptional items and amortization of intangible assets (€) ²⁾	0.43	0.61	41.9	3.84	4.45	15.9
Dividend per share (€)				0.80	0.90 ¹⁰⁾	12.5
ROCE ³⁾				9.3%	11.4%	
Cash flow from operating activities	275	185	(32.7)	568	472	(16.9)
Depreciation and amortization	107	121	13.1	410 ⁷⁾	431 ⁷⁾	5.1
Cash outflows for capital expenditures	194	240	23.7	397	497	25.2
Total assets				10,411 ⁸⁾	8,687	(16.6)
Equity (including non-controlling interests)				3,413 ⁹⁾	2,773	(18.8)
Equity ratio ⁴⁾				32.8% ⁹⁾	31.9%	
Provisions for pensions				1,490 ⁹⁾	1,083	(27.3)
Net financial liabilities ⁵⁾				2,252 ⁹⁾	1,923	(14.6)
Net financial liabilities after deduction of time deposits and securities available for sale ⁶⁾				2,252 ⁹⁾	1,381	(38.7)
Employees (December 31)				19,029 ⁹⁾	15,441	(18.9)
Personnel expenses (€ million)				1,291	1,328	2.9
Work-related injuries resulting in at least 1 day's absence (per million hours worked)				1.7 ⁹⁾	1.5	(11.8)
Hire rate of apprentices in Germany				80.0% ⁹⁾	84.0%	
Turnover resulting (from voluntary resignations)				2.3% ⁹⁾	3.1%	
Specific energy consumption (gigajoules per metric ton of product)				7.24 ¹¹⁾	5.05	(30.2)
Specific Scope 1 CO ₂ e emissions (CO ₂ equivalents, metric tons per metric ton of product)				0.25 ¹¹⁾	0.27	8.0
Specific Scope 2 CO ₂ e emissions (CO ₂ equivalents, metric tons per metric ton of product)				0.46 ⁹⁾	0.30	(34.8)
Emissions of volatile organic compounds (in thousand metric tons)				5.0 ¹¹⁾	1.0	(80.0)

1) EBIT: earnings before interest and taxes.
EBIT pre exceptionals: EBIT disregarding exceptional charges and income.
EBIT margin: EBIT in relation to sales.

EBITDA: EBIT before depreciation of property, plant and equipment and amortization of intangible assets, less reversals of impairment charges on property, plant, equipment and intangible assets.
EBITDA pre exceptionals: EBITDA disregarding exceptional charges and income.
EBITDA margin pre exceptionals: EBITDA pre exceptionals in relation to sales.
See "Value Management and Control System" in the Combined Management Report for details.

2) Earnings per share from continuing operations pre exceptionals and amortization of intangible assets: earnings per share from continuing operations disregarding exceptional charges and income, amortization of intangible assets and attributable tax effects as well as non-recurring earnings effects of the U.S. tax reform in the previous year. See "Business Performance of the LANXESS Group" in the Combined Management Report for details.

3) ROCE: EBIT pre exceptionals in relation to capital employed (total assets less deferred tax assets and interest-free liabilities). ROCE for 2017 as published including ARLANXEO. Capital employed as of December 31, 2018, adjusted. See "Value Management and Control System" in the Combined Management Report for details of capital employed.

4) Equity ratio: equity in relation to total assets.

5) Net financial liabilities: Sum of current and non-current financial liabilities (adjusted for liabilities for accrued interest) less cash, cash equivalents and near-cash assets. See "Value Management and Control System" in the Combined Management Report for details.

6) See "Value Management and Control System" in the Combined Management Report for details of the financial assets deducted.

7) Net of reversals of write-downs of €1 million.

8) Figure restated. For background information, please see the "Restatement of prior-year figures" section of the Notes to the Consolidated Financial Statements.

9) Prior-year figures as published, i.e. including ARLANXEO.

10) Dividend proposal to the Annual Stockholders' Meeting on May 23, 2019.

11) Prior-year figures restated, including ARLANXEO.

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Audited disclosures of the LANXESS Group that are included in the 2018 non-financial Group report.



The Annual Report 2018 is published in print and in PDF format. The print version does not include the Notes to the Consolidated Financial Statements and the GRI-related information, this can be found in the PDF version on the LANXESS website under the section Investor Relations.

LETTER FROM THE CEO

Ladies and Gentlemen,

2018 was another very successful year for LANXESS. This is reflected above all in the figures: With EBITDA of €1,016 million, we significantly exceeded the previous year's good figure again by 9.8%. But the figures are always just a reflection and result of the many different steps and measures that we take to keep making LANXESS a little better all the time. And in this respect, 2018 was a very eventful year.

We invested significantly in all segments in the past year. When the opportunities present themselves, we supplement or further balance out our value chain by way of acquisitions. In 2018, for example, we acquired Solvay's U.S. phosphorus chemicals business, which makes an ideal addition to our product range. In another project, we are breaking completely new ground: Together with the Canadian company Standard Lithium, our U.S. site in El Dorado is currently examining the technical and economic feasibility of producing lithium suitable for use in batteries from the brine obtained there.

The most striking sign of our corporate restructuring was undoubtedly the fact that we completed the sale of our 50% stake in the rubber company ARLANXEO to Saudi Aramco at the end of the reporting year. With this transaction, which brought us proceeds of approximately €1.4 billion, we reached the biggest milestone in our strategic realignment launched in 2014 – and did so considerably earlier than originally planned. The proceeds from the transaction strengthen our financial base and significantly reduce our net financial liabilities. With this sale, we have also succeeded in further reducing our dependency on the volatile tire and automotive industry and significantly improving our carbon footprint and other sustainability indicators.

Our strengthened business profile and improved financial situation are also recognized in the most recent ratings from Moody's, Scope Ratings and Standard & Poor's, each of which upgraded our rating by one notch last summer.

For LANXESS, economic success goes hand in hand with taking on social responsibility. We therefore also focus on strong environmental and social commitment. The success of our work in these areas is confirmed by the fact that we are included in two Dow Jones Sustainability Indices again this year. Taking on responsibility for people and the environment is an essential part of our identity. In 2018, we emphasized this with our renewed commitment to the principles of the U.N. Global Compact.

LANXESS's excellent performance in the past year is the result of unique cooperation by a strong team. The whole Board of Management would like to thank each of our more than 15,000 employees for their strong motivation, creativity and energy. But our thanks also go to our stockholders, customers, suppliers and partners: Without you, our success would not have been possible.

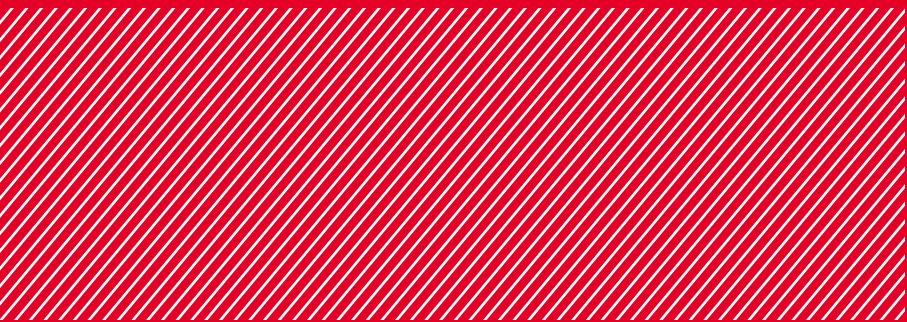
We have achieved a lot since the start of our strategic realignment. And in the future, we want to keep strengthening the things that make us successful: our value-based, responsible and reliable action, combined with clear strategic guidelines and an agile organization. We are convinced that on this basis we are excellently positioned to keep growing profitably and create even more value in the future. Please give us your support with this again in 2019.

Your, Matthias Zachert

Matthias Zachert

Chairman of the Board of Management

STRATEGY



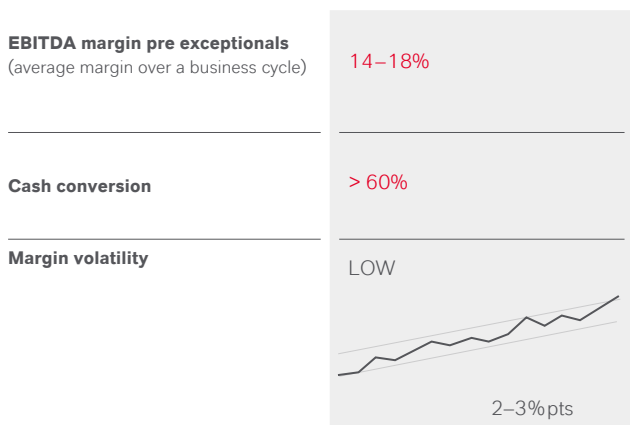
A strong foundation for the future

With the sale of its remaining 50% stake in the rubber company ARLANXEO, LANXESS is opening a new chapter in its history. As a much more clearly distinguished specialty chemicals company, we are initiating the next steps of our successful transformation process and thereby laying the foundations for sustainable, profitable growth.

LANXESS 2021

In our target scenario, LANXESS will be a much more stable specialty chemicals company from 2021 onward, with stronger cash flow and a more balanced and sustainable portfolio than in the past. We will have strengthened our regional presence in North America and Asia, enabling us to participate in the growth of these regions. With regard to our sales markets, we will have achieved a good balance between stability and growth potential. Our businesses will have attained a leading position in their respective market segments. Starting from this balanced basis, we will further accelerate our profitable growth.

Financial Targets for 2021 Reflect Improved Position



THE POWER OF CHANGE

We are pursuing our target scenario in an environment characterized by increasing complexity and a rapid pace of change. Protectionist developments in major global economies, political tensions, and volatile currencies and commodity prices on the one hand, and ambitious global climate protection targets and the United Nations' Sustainable Development Goals on the other, form the environment of conflicting priorities in which business strategies have to prove themselves now and in the future. Trade sanctions and protective tariffs are also affecting the highly globalized chemicals industry. Increasing regulatory requirements,

which are developing differently on a regional basis in particular, are driving the complexity of our business. The expectations that different stakeholders have of the chemicals industry vary and are subject to constant changes. At the same time, our industry must and will make a significant contribution to tackling the crucial challenges of our time – such as climate protection, scarcity of drinking water, and feeding a growing global population – with its adaptability and innovativeness. Under these conditions, the key to profitable growth and long-term success lies in a clear strategic framework, a balanced positioning, an agile organization and, last but not least, a corporate culture based on shared values.

A CLEAR STRATEGIC FRAMEWORK

We have successfully developed our core business over the past years and are therefore keeping to the cornerstones of our corporate strategy with complete conviction: Value-based, responsible and reliable action, combined with clear strategic guidelines, serves as our compass.

We are continuing to build on balanced value chains, sustainable, competitive sites, and our strengths in mid-sized markets with generally above-average growth rates. Here, we offer our customers an attractive combination of the professionalism of a global chemicals group and the agility and proximity to customers of a specialized niche provider. In the years ahead, we intend to further optimize this outstanding platform, which will also involve taking advantage of the opportunities of digitalization.

We will continue to pay particular attention to maintaining a balance in our portfolio. First, we must further reduce our economic dependency on individual sectors or correlating markets by increasing our presence in attractive customer industries. Second, we want to achieve a better regional balance within our portfolio by continuously increasing the share of sales in the growth markets of Asia and North America. In addition, developments such as the “circular economy” will change the benchmarks for sustainable products, which will likewise result in potential to further develop our portfolio.

We are aware that the path to success depends not only on a clear strategy, but also on the right attitude and corporate culture. For this reason, we once again took extensive measures in the reporting year to demonstrate a team-oriented and

performance-driven culture throughout the Group. Each and every employee at LANXESS is called upon to think entrepreneurially, act in a solution-oriented way, and keep committing to their work every day. LANXESS aims to be a company where a wide variety of talented individuals work together in a safe, productive, and inspiring environment.

In line with our strategic guidelines, we can and want to develop into an even stronger company that is sustainable in every respect. We are convinced that in this way we will be able to create even more value – for our shareholders, our customers, our employees, and for society.

Our Strategic Guidelines

Raw materials	Sites	Costs	Value chains	Sales markets	Growth & balance
Our value chains originate from globally liquid raw material markets.	We manufacture sustainable products at competitive and sustainable networked sites.	Our costs are competitive across the value chain.	We strengthen efficient and integrated value chains.	We focus on specialty chemicals markets with higher profitability.	We are leveraging long-term growth potential in Asia and the U.S. and balancing our regional sales split.

OUR TRANSFORMATION IS PROGRESSING RAPIDLY

We carry out active portfolio management

At the end of the reporting year, we completed the sale of our 50% stake in ARLANXEO to Saudi Aramco. Originally, a lockup period until 2021 had been agreed for both partners. With this transaction, which was completed as of December 31, 2018, the biggest milestone in our strategic realignment launched in 2014 has been reached earlier than originally planned. We received roughly €1.4 billion in cash from Saudi Aramco for our stake. In taking this step, we have not only further reduced our dependency on the volatile tire and automotive industry, but have also significantly improved our carbon footprint and other sustainability indicators.

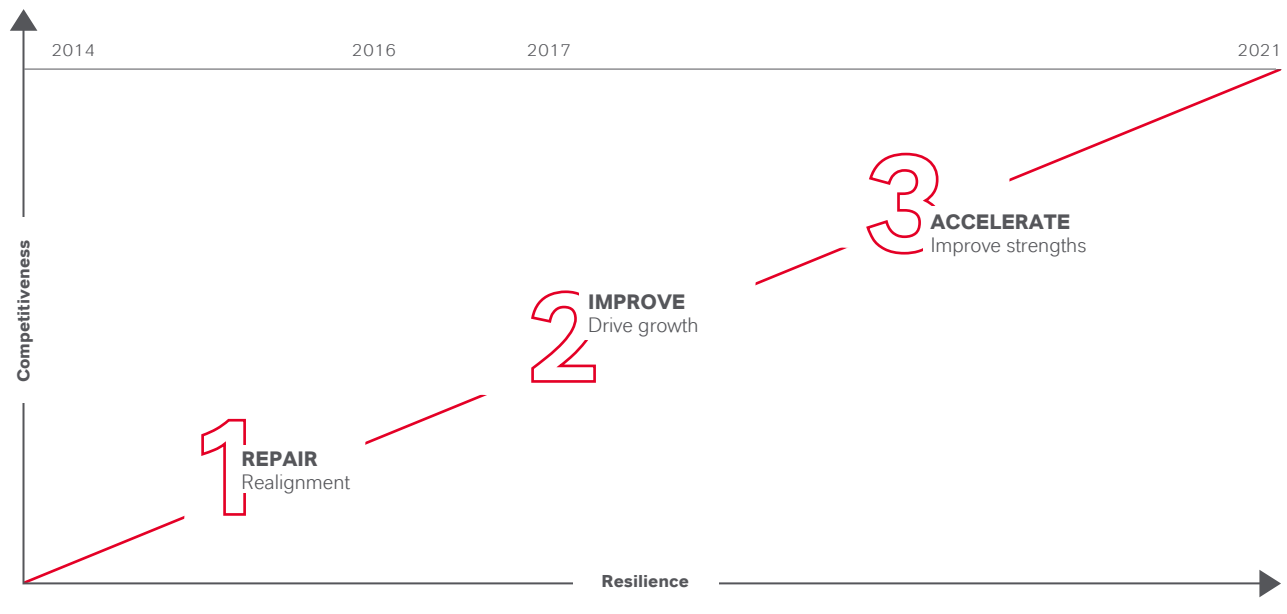
In the previous year, we had already significantly expanded our portfolio of specialty additives and strengthened our regional presence in North America with the acquisition of Chemtura. We will systematically continue on this path: Our focus is on targeted portfolio measures that enable us to supplement or balance out our value chain. In February 2018, we successfully purchased the U.S. phosphorus chemicals business from the Belgian chemicals group Solvay, including its production site in Charleston where around 90 employees manufacture intermediates and additives for flame retardants and other products.

We develop our businesses

Part of the cash inflows from the ARLANXEO sale will be invested in our organic growth. In order to further improve the positioning of our existing business areas and take advantage of future growth potential, we have identified a wide range of investment opportunities that together unfold considerable potential – the planned projects are expected to generate an average return on capital employed (ROCE) of 20%. One focus area is the optimization and expansion of facilities at several sites around the world in order to make them more competitive and therefore more sustainable. A second focus area is our regional growth strategies. We have adjusted our regional organization and adopted investment budgets with a five-year horizon for the North America and Asia-Pacific regions.

The main efficiency-enhancing measures in the past fiscal year include the previously announced closure of the former Chemtura site at Ankerweg in Amsterdam, Netherlands, in November 2018 and the decision to discontinue production at the Rio Claro site in Brazil. We sold the production site in Reynosa, Mexico, in the second half of 2018. Of the total planned cost synergies of €100 million from the integration of Chemtura, another approximately €40 million were generated in fiscal year 2018. We now expect the remaining €30 million to be generated by the end of 2020.

Transformation in Three Stages



We tap new potential

Together with the Canadian company Standard Lithium, our U.S. site in El Dorado is currently examining the technical and economic feasibility of extracting lithium suitable for use in batteries from brine. Standard Lithium has developed an innovative method for the extraction of high-purity lithium directly from brine. The company will use the existing infrastructure on our plant premises to construct and operate a pilot facility for this purpose.

The development of the biotech startup IMD Natural Solutions, which we acquired in the previous year, has already progressed to an advanced stage. The company focuses on research and development of natural substances with an antimicrobial effect for the food and beverage industry. Its core product is a glycolipid compound extracted from mushrooms that is effective against bacteria, fungi, and yeasts. We expect this to give us the opportunity to offer our customers an addition to our material protection and disinfectant portfolio that is based on natural substances.

Our business is financially sound

The improved positioning is also to be reflected in LANXESS's financial figures. Starting from fiscal year 2021, we are aiming for an average operating earnings margin – measured in terms of EBITDA pre exceptionals – over the course of a business cycle of between 14% and 18%. At the same time, the margin in any year should move around the average level by no more than two to three percentage points. A sound investment-grade rating will continue to constitute a strict goal of our conservative financial policy.

WE THINK AHEAD

LANXESS aims to be an enduringly successful chemicals company. The basic requirement for this is to think about and practice sustainability in an integrated way in all of its dimensions and in a societal context. The challenge of very deliberately considering the effects of all decisions – including the non-financial dimension – and finding the right balance between “today” and “tomorrow” motivates us and is reflected in a large number of specific targets. These relate to topics such as climate protection, constant further development of our processes, continuous investments to keep our sites competitive and sustainable, and regular analysis of our product portfolio – from raw material production through to waste management. Motivated, high-performing teams, good customer relationships, and market-oriented innovation management represent the stable foundation for our actions.

Our path is confirmed not only by our continued inclusion in the two Dow Jones Sustainability Indices DJSI World and DJSI Europe and our “A–” ranking in the Carbon Disclosure Project, but also by the significant progress made in relation to our own sustainability goals. Detailed information on these goals and the organizational structures, management tools, and measures that we use to address sustainability at LANXESS can be found in the following section of this Annual Report.

CORPORATE RESPONSIBILITY

A decorative graphic consisting of two large, overlapping shapes filled with fine, parallel diagonal lines. One shape is a large, irregular polygon on the right side of the page, and the other is a smaller, roughly rectangular shape on the bottom left. The lines are white and set against a solid red background.

Good for business, good for society

Sustainability and responsibility are success factors for our business activities. Continuously evolving organizational structures and management tools enable us to take account of general social outcomes when making decisions and to make the best possible use of human, natural, and financial resources in the interests of sustainable development of our Group.

Thinking and acting sustainably and in an integrated manner supports our business goals in a variety of different ways – from higher resource efficiency to good relationships with our stakeholders, increased risk awareness, and permanently advantageous cost structures. We now view sustainability in a broader context than we used to just a few years ago. In addition to the outputs of our business activities, we also take account of our impacts, i.e. the general social effects of our actions. Our explicit goal is to continuously improve our understanding of these impacts – both positive and negative – and create added value for our company and for society. In particular, we aim to achieve further significant progress in our material sustainability topics in line with the U.N. Sustainable Development Goals (SDGs) and thereby support the “2030 Agenda.” Our products and solutions therefore make relevant contributions to tackling challenges such as more environmentally friendly mobility, access to clean water, and feeding a constantly growing global population. At the same time, we are working to continuously improve our resource efficiency and avoid or at least minimize emissions in the air, soil, and water.

We therefore pressed ahead with the development of corresponding processes and tools intensively again in the reporting year. For example, we performed a systematic analysis for the first time to determine in which areas and to what extent our priorities for sustainable development – formulated in the material topics (see page 10) – support or conflict with the SDGs. The analysis showed that our activities are particularly closely correlated with SDGs 12 (Responsible Production and Consumption) and 13 (Climate Action). Detailed information can be found in the [Corporate Responsibility/Sustainable Development Goals section of the LANXESS website](#). In another major project, we established the methodological basis for an extensive risk analysis of our suppliers from a sustainability perspective that we will perform in the coming year (see page 31).

What all our initiatives have in common is that they originate in an active dialog involving both internal and external stakeholders. We are firmly convinced that a dialog-oriented approach encourages integrated thinking, improves the quality of our business decisions, and thus makes a significant contribution to fulfilling our guiding principle “Good for business, good for society.”



Audited disclosures of the LANXESS Group that are included in the 2018 non-financial Group report.



In the corporate responsibility section of this Annual Report, we fulfill our obligation to issue a non-financial Group report. The non-financial disclosures required in accordance with Sections 315b and 315c in conjunction with Sections 289c to 289e HGB and shown separately in the layout were prepared by the Board of Management and reviewed by the Supervisory Board of LANXESS AG. The non-financial report and the associated data collection processes have undergone a review with limited assurance in line with the auditing standard ISAE 3000 (revised) by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft on behalf of the Supervisory Board. The audit report can be found on page 193 of this report. The reporting year is 2018. The report covers the Group companies that are also included in the Consolidated Financial Statements. Unless indicated otherwise, the disclosures apply to continuing operations. References to disclosures not included in the Combined Management Report of the LANXESS Group and LANXESS AG or in the consolidated/single-entity financial statements of LANXESS AG represent further information and do not form part of the non-financial Group report. Within the non-financial report, we generally use the international standards of the Global Reporting Initiative (GRI) as the framework for the materiality analysis and reporting on management approaches and on general and topic-specific disclosures. Information on our business model can be found in the Combined Management Report of the LANXESS Group and LANXESS AG on page 60 of this Annual Report. Information on environmental protection provisions can be found in [Note \[15\]](#) to the Consolidated Financial Statements for fiscal year 2018.

ACTIVE STAKEHOLDER DIALOG

Relevant stakeholders for LANXESS are groups, institutions, or individuals with whom we maintain a direct or indirect relationship through our business activities and who therefore have an interest in our actions. Our main stakeholder groups are customers, capital market representatives, suppliers, the media, and representatives from politics, public authorities, and non-government organizations (NGOs). We engage in intensive dialog with all of these groups. Firstly, to promote mutual understanding and build trust with an open and constructive exchange of views. And secondly, to continuously identify topics that are important in view of our environment and our corporate responsibility.

One particular highlight of our dialog activities was the round-table discussion on the Sustainable Development Goals that we organized in December 2018. The focus was on the analysis we performed in the reporting year to determine in which areas and to what extent our priorities for sustainable development support the SDGs. We discussed both the evaluation methods themselves and the results obtained with them with expert external stakeholders. The dialog also served as an opportunity to outline possible development paths for the chemicals industry together – particularly with regard to SDG 12.

An overview of the main topics and dialog forums for each relevant stakeholder group and other specific activities in the reporting year is provided in the [Corporate Responsibility/Stakeholder Dialog section of the LANXESS website](#).

SYSTEMATIC PRIORITIZATION OF SUSTAINABILITY TOPICS

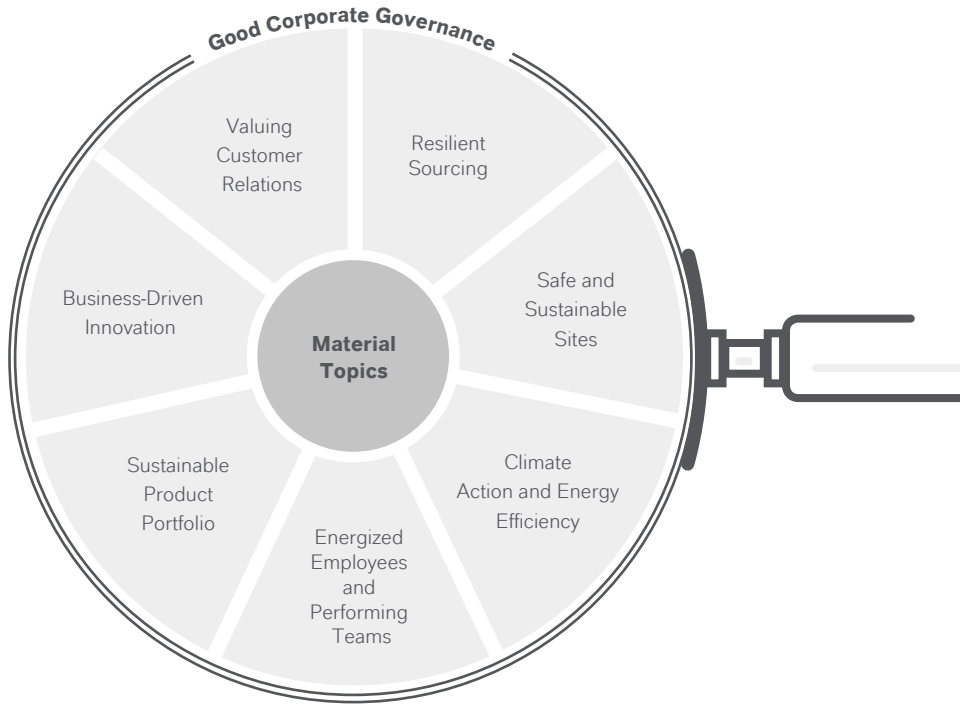
Identifying the main effects of our actions and incorporating our stakeholders' concerns into our strategy forms the basis of our sustainability management. Our materiality analysis in line with the requirements of the Global Reporting Initiative (GRI) is a key tool for systematically prioritizing the wide range of action areas and using resources as effectively as possible. The results also influence the structure of our external reporting on the topic of corporate responsibility.

We performed our last materiality analysis in fiscal year 2017. This was based on the four principles of sustainability context, materiality, completeness, and inclusion of stakeholders. As a result, we defined seven material sustainability topics that were confirmed by the Board of Management and the Corporate Responsibility Committee and also formed the relevant management framework in fiscal year 2018. The topic of good corporate governance forms the basis for all of our business activities. A detailed description of our process for determining material topics can be found in the [Corporate Responsibility/Material Topics section of the LANXESS website](#).

In addition to our materiality analysis, we came up with a definition of materiality for the non-financial Group report – the contents of which are integrated into this section of the Annual Report – in accordance with Section 289c, Paragraph 3, Sentence 1 of the German Commercial Code (HGB). The relevant disclosures in this context are those that are necessary in order to understand the business performance, the business results, the position of the Group, and the effects of our activities on non-financial aspects. For us, this means environmental issues, employee issues, human rights, and anti-corruption. We identified social issues as not being material for the purposes of understanding Group's business performance, business results, and position.

As part of our management of opportunities and risks, we have implemented a wide range of risk-mitigating measures. With regard to the non-financial aspects of the CSR Directive Implementation Act defined as relevant for the non-financial Group report, as well as the aspect of social issues, a net risk analysis shows no material risks in connection with our own business activities or with business relationships, products, and services that are very likely to have serious negative effects. Detailed information on our opportunity and risk management system can be found in the Combined Management Report of the LANXESS Group and LANXESS AG, starting on [page 98](#) of this Annual Report.


Material Topics



We have formulated specific goals for all key topics. These are based on the goal of using our operating activities to achieve an increase in value for our company, our stakeholders, and society. Some of the variable compensation of the first and second management level below the Board of Management therefore depends on the

extent to which certain targets are achieved. In an internal working group, sustainability experts critically examined the existing goals and indicators, fleshed these out where necessary, and also defined a number of new goals in the reporting year.

LANXESS Corporate Responsibility Goals

Topic	Goal	Indicator	Deadline	Status Quo 2018	Page
 Resilient Sourcing Our value chains start from a diverse, sustainable raw material portfolio. We engage with our suppliers and relevant stakeholders to improve the working and environmental conditions in the global supply chains.	Establishment of a systematic sustainability risk analysis to evaluate all suppliers	Share of suppliers evaluated	2019	The methodology behind the analysis was developed and agreed upon in the reporting year and will be implemented in 2019.	31
	Identification and reduction of sustainability risks in the supply chain	Sustainability risk score	Ongoing from 2020		31

LANXESS Corporate Responsibility Goals

Topic	Goal	Indicator	Deadline	Status Quo 2018	Page
Safe and Sustainable Sites We manufacture sustainable products at competitive and sustainable chemical sites. Continuous process improvements and investments are fundamental for our sustained success. We care about the community.					
Uniform standards and processes worldwide	Integration of all sites (except Rustenburg) into the global matrix certificate (ISO 9001 and ISO 14001)	Degree of coverage in relation to sites	Ongoing until the end of 2025	As of December 31, 2018, our matrix certificate covered 50 certifiable companies with 92 sites in 23 countries. A total of 23 of these sites belong to ARLANXEO. In relation to the number of employees, this equates to 83% coverage of our matrix certificate. Due to the acquisition of Chemtura, we still have some site certificates and a region certificate; these will also be transferred to our matrix certificate. As of the reporting date, a total of 96% of our sites had ISO 14001 certification.	14
Global process safety	Continuous reduction in incidents relating to facility and process safety	Number of reportable incidents relating to facility and process safety	Ongoing	No incidents at LANXESS relating to facility and process safety (ARLANXEO: 1 facility safety incident).	32
	Continuous reduction in environmental incidents	Number of reportable environmental incidents	Ongoing	15 environmental incidents at LANXESS, of which 11 occurred at acquired Chemtura sites (ARLANXEO: 0 environmental incidents).	32
	Continuous reduction in transportation incidents	Number of reportable transportation incidents	Ongoing	3 transportation incidents at LANXESS (ARLANXEO: 1 transportation incident).	32





Climate Action and Energy Efficiency

Climate action based on efficient energy use is the right thing to do for society and also a key to delivering financial performance in the long-term.

Emissions ¹⁾	25% decrease in CO ₂ e Scope 1 emissions in relation to volume sold	Specific CO ₂ e Scope 1 emissions	End of 2025	The specific Scope 1 emissions in continuing operations have increased by 8% compared with the base year 2015. Adjusted for ARLANXEO, emissions have decreased by 4% compared with 2015.	39
	25% decrease in CO ₂ e Scope 2 emissions in relation to volume sold	Specific CO ₂ e Scope 2 emissions	End of 2025	The specific Scope 2 emissions in continuing operations have decreased by 34.8% compared with the base year 2015. Adjusted for ARLANXEO, emissions are at the same level as in 2015.	39
	25% decrease in emissions of non-methane volatile organic compounds (NMVOC)	Emissions of non-methane volatile organic compounds (NMVOC)	End of 2025	The absolute VOC emissions in continuing operations have decreased by 81.5% compared with the base year 2015. Adjusted for ARLANXEO, emissions have decreased by 9.3% compared with 2015.	40
Energy efficiency ¹⁾	25% increase in energy efficiency in relation to volume sold	Specific energy consumption	End of 2025	The specific energy consumption in continuing operations have decreased by 32.1% compared with the base year 2015. Adjusted for ARLANXEO, emissions have decreased by 1.2% compared with 2015.	40

1) Basis: December 31, 2015

LANXESS Corporate Responsibility Goals

Topic	Goal	Indicator	Deadline	Status Quo 2018	Page
 Energized Employees and Performing Teams	We create a motivating, energetic and health-preserving working environment for all employees, striving for high engagement and impact. We nurture and promote a value-based, performance-orientated culture. We aim to be an attractive employer and to develop peoples' full potential throughout their professional life.				
Employee retention	High employee retention: Voluntary turnover rate below 3.5%	Turnover rate on the basis of resignations	Ongoing until the end of 2023	The turnover rate on the basis of resignations was 3.1% in continuing operations. Adjusted for ARLANXEO, the rate was 3.3%.	23
Employee development	At least 80% of apprentices hired after completing their training	Proportion of apprentices hired in Germany	Ongoing until the end of 2023	84% (previous year: 80%) of apprentices were hired.	21
Occupational safety	Continuous decrease in the frequency rate per million hours worked by > 50 % (reference frequency rate of 2.0 in 2016)	Lost time injury frequency rate (LTIFR)	End of 2025	The LTIFR was 1.5 in continuing operations. Adjusted for ARLANXEO, the LTIFR was 1.4.	29
Diversity	Increase proportion of women in middle and upper management to 20%	Proportion of women in middle and upper management	End of 2020	Proportion of women: 19.2% (previous year: 18.3%)	25
	At least one female Board of Management member	Proportion of women on the Board of Management	Mid-2022	Not yet achieved	25
	Proportion of women in the first level below the Board of Management to 15%.	Proportion of women in the first level below the Board of Management	Mid-2022	The proportion of women was 13.8% in continuing operations. Adjusted for ARLANXEO, the proportion was 11.8%.	25
	Increase the proportion of women in the second level below the Board of Management to 25%	Increase the proportion of women in the second level below the Board of Management	Mid-2022	The proportion of women was 19.2% in continuing operations. Adjusted for ARLANXEO, the proportion was 18.5%.	25
 Sustainable Product Portfolio	Our products are manufactured and marketed so that they do not pose a risk to human or the environment. We systematically evaluate the sustainability of our entire portfolio. Sustainability criteria are applied in the development of products and applications.				
Analysis of the product portfolio from a sustainability perspective	100% of the portfolio analyzed from a sustainability perspective	Share of sales of the products analyzed in relation to the total portfolio	Ongoing	The entire product portfolio was systematically analyzed in terms of sustainability.	43
 Business-Driven Innovation	We drive process, product, application and business model oriented innovation for and together with our customers and suppliers. We help our customers to make their business sustainable.				
Long-term, continuous development of products, applications, and processes	Developing innovative products based on the needs and expectations of our customers	Number of product-related projects	Ongoing until 2025	159 projects in continuing operations were aimed at developing new/improving existing products and applications.	43 et seq., 66
	Continuous further development of our production processes in order to maintain competitiveness and achieve our climate and energy efficiency targets	Number of process-related projects	Ongoing until 2025	80 projects in continuing operations concerned process technology issues with a view to reducing costs, improving efficiency or increasing capacity.	43 et seq., 66
 Valuing Customer Relations	We value long-term customer relations, build on trust and knowing, understanding and solving the customers challenges.				
Long-term customer relationship	Improvement in customer satisfaction and maintenance of customer loyalty: customer loyalty index > 75	Customer loyalty index score	2019	In the 2017/2018 survey, the customer loyalty index score in continuing operations was 75.1.	44

GOOD CORPORATE GOVERNANCE

Only appropriate values, operational guidelines and organizational structures – summed up as good corporate governance – enable our employees to act responsibly in their day-to-day work and thus turn a relatively abstract concept into a specific corporate success factor. At LANXESS, good corporate governance is embodied by a values-based and safety-conscious corporate culture, effective management systems and a commitment to internationally recognized principles of responsible management, such as the principles of the U.N. Global Compact.

Committees and functions

To ensure that our values as well as our rules and standards are observed and continuously developed, we have established several specialized committees below the level of the Board of Management and the Supervisory Board.

Compliance organization

The global compliance organization is the central point of contact for all employees on compliance-related issues. It also works with the organizational units to develop measures intended to counter illegal or unethical conduct by LANXESS employees at an early stage and to prevent improprieties. Our compliance management system is described in the opportunity and risk report on [page 99](#) of this Annual Report.

Corporate Risk Committee

The Corporate Risk Committee examines and monitors the Group's risk profile and in this context also regularly analyzes the key opportunities, risks, and corresponding preventive measures in relation to sustainability. Our opportunity and risk management system is described in detail in the Combined Management Report starting on [page 98](#) of this Annual Report.

Corporate Responsibility (CR) Committee

The members of this committee represent all LANXESS business units and ensure that all LANXESS's CR activities within the Group are in line with our strategy. As an interdisciplinary competence center, the committee advises both the Board of Management and the business units on all matters relating to sustainability. It is also responsible for collecting and maintaining reliable data that comply with current market standards for use in our external CR communications.

HSEQ Committee

The HSEQ Committee ensures worldwide compliance with uniformly high quality management, safety, environmental, energy and climate protection standards. It has responsibility for initiating and monitoring the global implementation of all necessary HSEQ guidelines, strategies and programs as well as for defining our HSEQ objectives and monitoring their achievement. It also defines the global strategy for our integrated quality and environmental management system and our energy management system.

Responsibilities at Board Level



1) Corporate Responsibility
2) Health, Safety, Environment and Quality
3) Compliance Management System

Integrated management system

A centrally organized management system at LANXESS provides for the necessary global management structures in all business processes in order to ensure responsible business activities. Globally, we base our actions on the international standards ISO 9001 and ISO 14001 for quality and environmental management and ISO 50001 for energy management.

Confirmation of compliance with the standards ISO 9001 and ISO 14001 is provided in a global matrix certificate. This brings a whole range of benefits:

- › a high degree of standardization of processes
- › uniform in-house guidelines and instructions
- › transparent, efficient, and effective processes and controls
- › considerably reduced external expense for the maintenance and optimization of the management system, for the integration of additional management systems (e.g. ISO 50001, sustainability standards), and for the integration of new sites or business units.

We ensure that progress in integrating new sites into our management system and its performance are regularly reviewed worldwide by independent external experts. In 2018, we successfully passed the certification audit in accordance with the updated standards ISO 9001:2015 and 14001:2015 and the surveillance audit in accordance with ISO 50001. No new sites were integrated into the matrix certificate in the reporting year. The Memphis and Sudbury sites acquired in 2016 and our production site in Joo Koon, Singapore, were integrated into the LANXESS management system in 2018 and this process will be completed when they are added to our matrix certificate in 2019. With just a few exceptions, the sites taken on with the acquisition of Chemtura have already been certified in accordance with ISO 9001 and most of them have also been certified in accordance with ISO 14001. These sites will initially continue their certifications independently. As a chrome ore mine, our site in Rustenburg, South Africa, cannot be allocated to LANXESS's other industry-typical business areas in the matrix certificate. We are therefore aiming for separate certification in accordance with ISO 9001 and 14001 for this site.

As of December 31, 2018, our matrix certificate covered 50 certifiable companies (companies with staff and in which LANXESS has a stake of over 50%, as well as ARLANXEO companies) with a total of 92 sites in 23 countries. A total of 23 of these sites belong to ARLANXEO. Not including Chemtura, this equates to 98% coverage in relation to the number of employees (not including ARLANXEO: 97%). Taking account of the changes in the Group portfolio, the level of coverage has fallen to 83%. We are planning to gradually integrate the new sites into the matrix certificate.

In addition, we have gradually had LANXESS AG and all Group companies certified in accordance with ISO 50001 for energy management in Germany and Belgium. As of December 31, 2018, the energy management system had reached 100% coverage in these two countries in relation to the number of employees. The acquired former Chemtura site in Bergkamen has its own certificate and will be integrated into the matrix certificate in 2019. IAB Ionenaustauscher GmbH also has its own certificate. Our subsidiary LANXESS N.V. in Antwerp, Belgium, was certified and integrated into the matrix certificate in the reporting year. In Great Britain, energy audits in accordance with ESOS (Energy Savings Opportunity Scheme) are required for all sites. After the audit requirement was determined in 2018, these audits must be conducted by the end of 2019.

In addition, LANXESS has other specific management systems and certifications such as EMAS, RC14001 (RC = Responsible Care®), OHSAS 18001, and KTA 1401. The status of our certifications can be viewed at any time in the [Corporate Responsibility section of the LANXESS website](#).

Guidelines for action

Commitment to international standards and frameworks





With the “2030 Agenda for Sustainable Development,” the United Nations has established the basis for global economic progress in harmony with social justice and within the earth’s ecological limits. The specific goals of the Agenda are set out in the *Sustainable Development Goals* (SDGs). We, too, want to achieve significant progress in our key issues in line with the SDGs (see page 10).

The *U.N. Global Compact* is the world’s biggest and most important initiative for responsible corporate governance. Based on ten universal principles, it pursues the vision of an inclusive and sustainable global economy for the benefit of all people, communities, and markets. As a signatory, we recognize these principles as inalienable rights. We renewed our commitment to the U.N. Global Compact again for 2018.

The term *Responsible Care*[®] stands for the chemical industry’s goal of achieving progress with safety and environmental protection, regardless of the legal specifications. We have documented our commitment to the visions and ethical concerns of this initiative from the International Council of Chemical Associations (ICCA) by signing the Responsible Care[®] Global Charter. With our internal guidelines, we integrate the principles of the Charter into our guiding principles and corporate strategy.

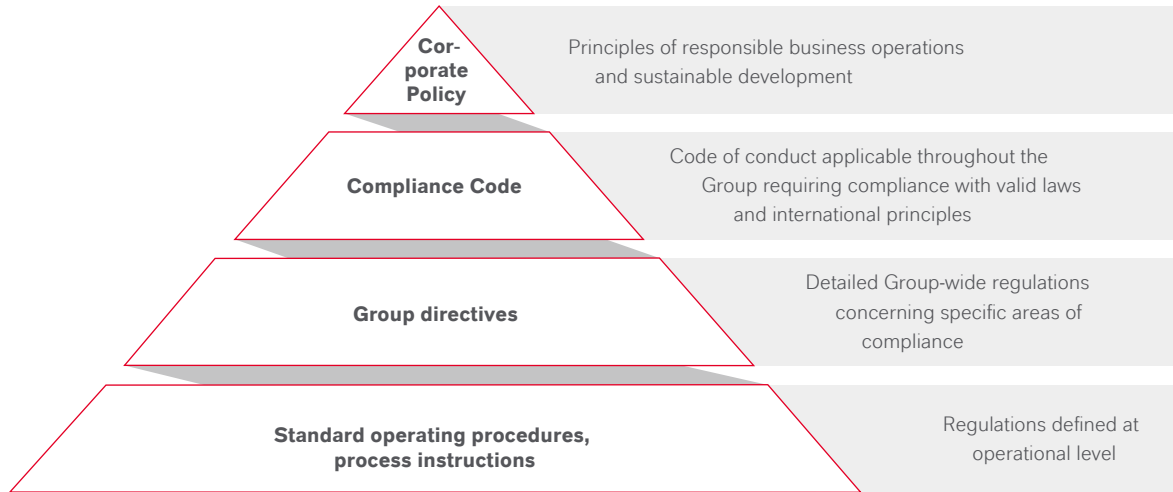
Among the internationally recognized principles of business activity to which we are committed are the *employment standards of the International Labor Organization*, an agency of the United Nations. These are aimed at upholding globally recognized social standards and thereby improving working and living conditions for all people.

The Ten Principles of the U.N. Global Compact

Area	 Human rights	 Labor	 Environment	 Anti-corruption
Principle	<ol style="list-style-type: none"> Businesses should support and respect the protection of internationally proclaimed human rights. Businesses should make sure they are not complicit in human rights abuses. 	<ol style="list-style-type: none"> Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining. Businesses should uphold the elimination of all forms of forced and compulsory labor. Businesses should uphold the effective abolition of child labor. Businesses should uphold the elimination of discrimination in respect of employment and occupation. 	<ol style="list-style-type: none"> Businesses should support a precautionary approach to environmental challenges. Businesses should undertake initiatives to promote greater environmental responsibility. Businesses should encourage the development and diffusion of environmentally friendly technologies. 	<ol style="list-style-type: none"> Businesses should work against corruption in all its forms, including extortion and bribery.

Internal guidelines and regulations

Clear Rules Provide Guidance



The principles of responsible business operations and sustainable development are expressed in our Corporate Policy, which defines our general corporate philosophy and the conduct expected of every single employee in relation to our stakeholders in a total of eleven guidelines.

The LANXESS Code of Conduct, which is applicable throughout the Group, requires all our employees – across all organizational units, regions and hierarchy levels – to behave lawfully and with integrity. Through correct and proper conduct, each employee is required to contribute to preventing harm to LANXESS and increasing the company's value over the long term. The code covers issues such as human rights, anticompetitive behavior, anti-corruption, data protection, occupational, product and plant safety, and environmental protection.

Other Group directives, such as the HSE directives and the guideline on incentives, define the specific application of regulations in the individual areas of compliance covered by the code and are binding on all employees throughout the Group. On the basis of these LANXESS directives, more detailed regulations that also take account of local requirements are defined at the operational level in standard operating procedures and process instructions, etc. The applicable directives, standard operating procedures and guidelines are accessible to all employees. Employees are also regularly informed of new and updated regulations relevant to them.

We also expect our suppliers to commit to our values and rules, especially the U.N. Global Compact, the ILO Labor Standards and the upholding and promotion of fundamental rights of employees, and to establish adequate systems for ensuring legally compliant and responsible behavior. The LANXESS Supplier Code of Conduct is part of our communication with suppliers. When we select new suppliers, it is essential for us that they acknowledge the principles contained in this code or have established their own comparable regulations and management systems in line with the U.N. Global Compact. In addition, we promote responsible action in the supply chain with our involvement in the Together for Sustainability initiative, which we operate jointly with 21 other international chemical companies ([see page 31](#)).

Values and culture

LANXESS's identity is based on five central values: respect, ownership, trust, professionalism and integrity. These values apply always and everywhere – and to all employees. We seek to foster a corporate culture in which responsible and morally irreproachable actions and striving for performance do not contradict but complement each other.

Human rights

In line with our values and operational guidelines, we are committed in all our markets and supply chains to promoting respect for human rights at all times and systematically preventing child and forced labor, for example. At LANXESS, human rights and ethical principles apply without restriction, even if they are not stipulated in the legislation of individual countries. Our target is formulated with corresponding clarity: in all areas over which LANXESS has control, there should be no breaches of human rights. We have included all relevant information on our commitment and on the measures established in the Group to protect human rights in the "LANXESS Position on Human Rights." This document can be viewed at any time in the [Corporate Responsibility/Good Corporate Governance section of the LANXESS website](#).

Direct responsibility for ensuring that human rights are respected at all times lies with the respective management at our sites, supported by our global compliance organization and local Compliance Officers. At Group level, human rights are subject to regular evaluation as part of our risk management system. Since 2016 we have performed a risk assessment that specifically addressed human rights at a total of seven national companies (Brazil, China, Germany, India, Mexico, South Africa, and the U.S.). The assessments confirm that there is a high level of awareness of the subject and that functioning mechanisms have been established to prevent violations of human rights. Furthermore, all organizational units at LANXESS and their business activities are subject to regular internal and external audits. It goes without saying that these activities also include monitoring respect for human rights and – if necessary – the introduction of suitable measures to guarantee this.

Our Code of Conduct includes unambiguous instructions regarding the respect of human rights. The code, which every new employee receives with their employment contract, is also an aspect of general training measures. In addition, we hold training sessions geared towards specific selected human rights issues such as occupational safety. If there are suspected human rights violations, the Integrity Line and Compliance Helpdesk offer our employees and external third parties various ways to notify the compliance organization – also anonymously if they wish. For the time being, the Resource Line is also still available to the former Chemtura companies.

We have no reports or knowledge of any systematic discrimination against LANXESS employees. This includes discrimination on the basis of race, skin color, age, gender, sexual orientation, origin, religion, disability, trade union membership or political opinion. In individual cases, misconduct by employees in respect of colleagues or third parties was reported. We will not tolerate verified misconduct and it will result in appropriate disciplinary measures up to and including dismissal.

All acquisitions of companies or interests in companies are subject to a careful due diligence process to ensure that human rights are also respected by the target company. Significant suppliers of goods and services are regularly the subject of supplier assessments in the context of TFS audits that include aspects such as compliance with our Supplier Code of Conduct. The audits also cover compliance with human rights, including with regard to child labor and forced labor. In fiscal 2018, we received no reports or other indications of human rights violations by our suppliers. The same applies to child labor and forced labor.

We have also established the necessary sales-related processes to fulfill our responsibilities. This particularly includes our processes for central product monitoring and for trade compliance, especially with regard to regulations for preventing dual use. We also systematically evaluate the impact of our products on people as part of our portfolio analysis.

Anti-corruption

By signing the U.N. Global Compact, we have undertaken to actively counter all forms of corruption. Here too, our target is no incidents. Prevention of corruption is part of our general compliance management system. Organizational measures and regulations for setting up the compliance management system as well as responsibilities for implementation, support and continuous monitoring of the system are defined in a guideline applicable throughout the Group. The respective site management, supported here too by our global compliance organization and local country compliance officers, is responsible for preventing instances of corruption at all times.

A Group-wide directive provides our employees with clear guidance regarding incentives. Our employees are prohibited, either directly or in connection with their professional duties, from offering personal advantages to the employees of other companies – in particular when initiating, awarding or handling an order or assignment. Our employees are likewise prohibited from accepting such advantages or requesting them for themselves. Exceptions may be made for customary occasional or promotional gifts that are symbolic in nature and of low value. If an employee is offered such gifts, they must immediately notify their supervisor or the compliance organization.

LANXESS may not grant advantages of any kind to public servants or other officials in Germany or abroad. When commissioning service providers who have contact with officials on behalf of LANXESS, employees must likewise ensure compliance with the prohibition on corruption. As a basic principle, we do not provide financial support to political groupings or parties. LANXESS is involved in large industrial associations, which we regard as fundamental to representing our interests. We disclose contributions and spending on political activities transparently; details can be found on the [LANXESS Website, Corporate Responsibility/Stakeholder Dialog](#) at any time.

All donations require approval from a member of the Board of Management after prior consultation with the compliance organization.

To enhance our employees' awareness of these rules of conduct, the issue of corruption is regularly covered by compliance training. In addition, we hold specific corruption training aimed at exposed professional groups and countries. In total, over 3,000 employees took part in the compliance training sessions in the reporting year. If there are indications of compliance violations, our employees and external third parties can contact the compliance organization via the established reporting channels – also anonymously if they wish.

The Corporate Audit function examines and monitors implementation of our measures to prevent corruption. It applies various analytical approaches and scopes here:

- › Assessment of the risk of exposure to corruption as part of annual audit planning, and general monitoring of the internal control system: all business units
- › Transaction monitoring to ensure compliance with company regulations with an influence on the prevention of corruption in the standard SAP system: at least 90% of all transactions

In fiscal year 2018, we received no reports or other indications of cases of active corruption by LANXESS employees. Verified cases of LANXESS employees being bribed lead to appropriate disciplinary actions up to and including dismissal as well as consideration of further legal steps. In fiscal year 2018, we recorded a single-digit number of such cases, but these did not have any further significant effects for LANXESS.



EMPLOYEES

We firmly believe that energized employees and performing teams are crucial to a company's long-term success. To put this belief into practice, we launched an extensive HR transformation project in 2017 and stepped it up successfully in the reporting year. Taking our corporate strategy, global HR trends and the requirements of our business units and Group functions into account, we developed a new HR strategy, our "People Strategy," and then worked intensively on the strategic realignment of the HR department. This is aimed at strengthening our regions as well as our specialists and encouraging effective global collaboration. In addition, we successfully started to develop modern HR products and solutions for current and future needs of internal stakeholders. These chiefly include streamlined, harmonized and digital processes and systems that improve the efficiency and quality of our HR work.

Our new HR strategy is striving to energize people and to facilitate business growth. It is based on four pillars and eight strategic action fields that clearly guide our HR work:

› Enabling growth

With increasingly long-term and strategic workforce planning as well as a globally managed recruiting strategy, we are supporting the sustainable growth of our business in line with our corporate strategy.

› Developing people

We pursue continuous talent management and a comprehensive training and learning concept with the aim of promoting cross-functional and cross-divisional career development, developing young talent from within our own ranks and strengthening expertise for the LANXESS organization of the future.

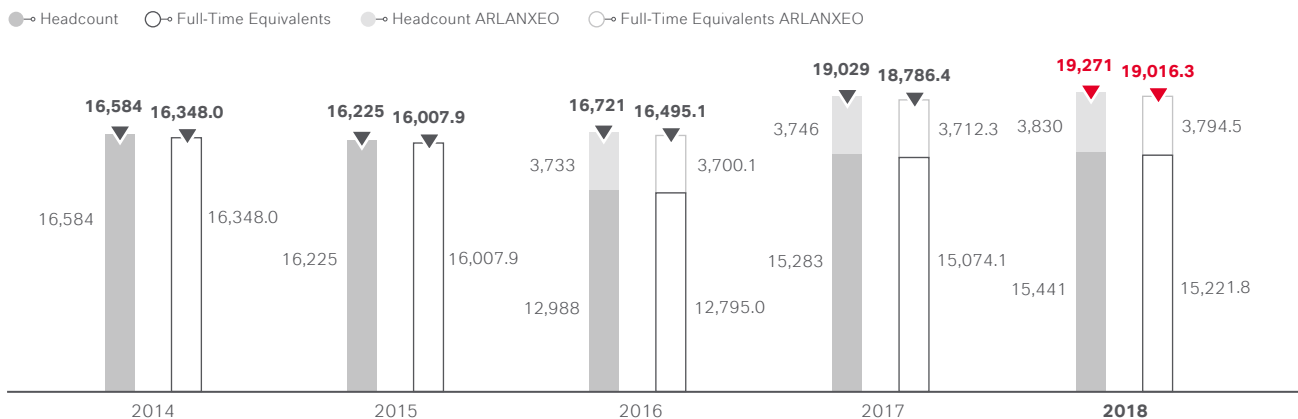
› Enhancing and strengthening the HR function

We promote efficient and standardized HR processes, act as a global team with transparent structures and establish modern, digital HR systems and tools. We operate as a strategic partner for the businesses.

› Intensifying dialog

We strengthen exchange within and outside the HR department in order to create greater transparency regarding HR products and services, to enhance the role of HR as a strategic partner and to address the needs of the various group functions and business units in an even more targeted way.

Number of Employees



Targeted recruitment of talents

With regard to the successful growth of LANXESS, strategic recruiting will continue to be a linchpin of the HR strategy. Against a backdrop of strong competition for talent in our core markets and the ongoing pronounced demographic challenges (see also page 25), we are investing in a distinctive employer brand in order to highlight the advantages of LANXESS as an employer and spark enthusiasm for our company among talented people from a wide range of functions. In the reporting year, we worked intensively

to set up globally uniform recruiting with a clear target-group approach and to use new recruiting channels. We are particularly interested in approaching talented people actively and personally when doing so. Therefore, we are increasingly using social media to attract new employees.

A total of 1,051 new employees joined the Group in the reporting year. A particular focus was placed on experienced engineers, IT experts and digitalization specialists.

New Employees by Age Group, Gender and Region

Age Group	EMEA (excluding Germany)		Germany		North America		Latin America		Asia-Pacific		Total
	f	m	f	m	f	m	f	m	f	m	
<30	16	45	33	97	26	73	4	9	31	63	397
30-49	30	46	36	143	26	105	5	9	30	76	506
≥50	2	8	8	20	26	83				1	148
Total	48	99	77	260	78	261	9	18	61	140	1,051
Total Region	147		337		339		27		201		

%

Age Group	f	m	f	m	f	m	f	m	f	m	Total
<30	27.5	27.7	18.4	15.0	50.2	45.5	13.7	12.9	33.7	25.6	23.4
30-49	8.7	4.3	5.7	5.5	16.7	16.4	3.5	2.3	7.5	5.1	6.4
≥50	1.6	1.0	1.6	0.7	10.9	10.5	0.0	0.0	0.0	0.3	2.5
Total	9.2	4.8	5.9	4.2	17.5	16.4	4.8	3.0	11.4	6.9	6.8
Total Region	5.7		4.5		16.7		3.4		7.8		

Our international graduate trainee program is a fundamental tool for securing talent in Germany. Exceptionally well-qualified Master's graduates are prepared for challenging specialist and managerial tasks and gather experience abroad during the trainee program. The program is focused on marketing/supply-chain management, engineering, controlling & finance and human resources. In 2018, 16 new graduate trainees (six women, ten men) started their career at LANXESS.

7.6%



apprentice ratio

This figure is the ratio of apprentices at LANXESS in Germany.

Developing specialist staff from within our own ranks

Training young people has always been hugely important to us, both in order to safeguard the company's future and as part of our social responsibility. Vocational training is the basis of our strategy of developing specialist staff for the German sites from within our own ranks. To manage the apprenticeship program centrally, we established a department in Leverkusen that is based in the People Management unit and reports to the head of the HR region Germany. It supports our scientific, technical and commercial apprentices as well as our students on dual-study programs.

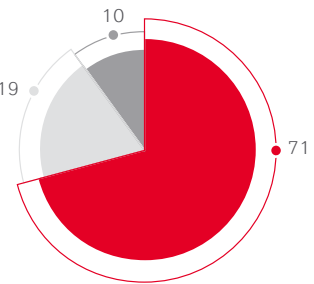
188 trainees on eight technical, scientific and commercial career paths started their apprenticeships at LANXESS Deutschland GmbH on September 1, 2018. The proportion of female career starters was around 8% in the reporting year (previous year: 14%).

Taking the new intake into account, there are currently 620 apprentices at LANXESS in Germany (as of December 31, 2018). The proportion of female apprentices across all years is around 12%. As in the previous year, we invested a total of around €20 million in the vocational training of young talent in 2018.

Apprentices by career path¹⁾

%

- Scientific (chemical technicians, laboratory technicians, tanners)
- Technical (e.g. industrial mechanics, electricians)
- Commercial (management assistants, business IT specialists etc., including 26 students on combined vocational training and study courses)

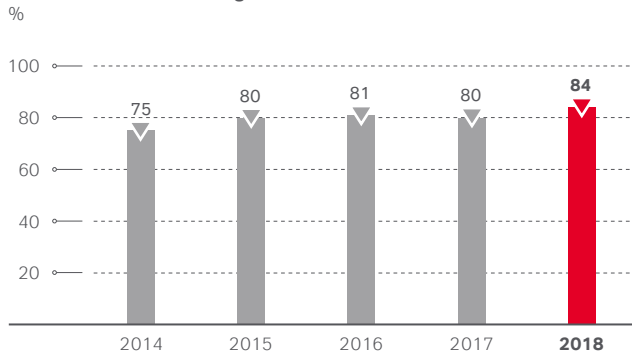


1) LANXESS in Germany

Training will remain a key pillar of our HR policy in the years ahead. Against a backdrop of demographic change and our constant need for qualified young people, we plan to recruit approx. 200 apprentices a year in Germany in the next few years. In addition, it is our stated aim to retain (at least) 80% of our apprentices after successful completion of their training. We again reached this target in the reporting year with a retention ratio of 84% (previous year: 80%). Outside of Germany, we have also started to offer apprenticeship programs on a smaller scale in countries such as Belgium, Spain, the UK, India and South Africa.



Hire rate of apprentices and students on combined work and bachelor's degree courses at LANXESS¹⁾



1) LANXESS in Germany

Each year, with our XOnce program, we give school-leavers who still do not meet academic or personal requirements for starting an apprenticeship program immediately the opportunity to qualify for a technical or scientific apprenticeship program – regardless of whether this is then done externally or at LANXESS itself. Eleven young people took part in the XOnce program in 2018. On average, approximately 50% of participants become apprentices at LANXESS after participating in the XOnce program.

Promoting development worldwide

Only by constantly investing in training our employees and imparting clear, globally binding values and standards can we as a company keep on using the opportunities of changing markets successfully. Wide-ranging management and HR-development tools enable and motivate our employees to act on the basis of values, rethink issues, implement them quickly and devise solutions in a team.

We have been offering global leadership training programs since 2016 in order to embed our leadership principles more deeply worldwide. Depending on the level of experience of participants, basic management techniques are conveyed, refreshed and implemented by the participants in individual measures. Since management practice differs depending on the country and cultural environment, our training programs also take cultural differences into account. A total of 1,004 managers have been trained, including 300 managers in 2018.

To increase the long-term dimension of leadership training even more, we offered a “Leadership Practice Day” for alumni, i. e. for managers who have already completed one or more leadership training courses, for the first time in the reporting year. After a successful pilot run in Germany, the Leadership Practice Day is to be rolled out worldwide in 2019.

In addition to our global leadership training programs, we also offer international training for high-performance employees with high development and leadership potential (LILI – LANXESS International Leadership Introduction) as well as leadership training for shift supervisors at our German plants. Above and beyond global leadership training, we offer regional HR development programs for managers, for example in the Asia-Pacific region. We have set up a regional development center here for managers with high potential. In addition, in China, we offer a highly interactive training format including business games to middle and top-tier management with the INCEPTION program. In some countries, we also use leadership training courses specifically tailored to the country and its culture, for instance in Japan.

The performance dialog is a key tool for developing our employees. We use it to help our managers and their employees to compare mutual expectations regarding tasks, targets and responsibilities more effectively and to continuously give each other feedback, thus ensuring a lasting improvement in collaboration. The performance dialog was available to all managers in the reporting year and was very well received.

We also launched the first editions of our new training program “Mindful High Performance” in 2017 and 2018. The aim of the program is to provide mindfulness training, resulting in positive effects on performance and well-being. Clarity, focus, authenticity and emotional intelligence are particular focal points of the sessions. We firmly believe that mindfulness training can encourage behavior compatible with our value-based corporate culture. The program runs for ten to twelve weeks – the time it takes for new modes of behavior to become permanently embedded in the brain. On account of the hugely positive feedback from the first group of participants in Germany as well as the significantly positive effects on various aspects of mindfulness – measured via an app and a questionnaire – we decided to include the program in our regular training options for employees and managers in Germany in the future. A pilot was also launched in Asia in the reporting year, and a test run in the U.S. is planned for early 2019.

In the context of our HR transformation project, we also sharpened the focus of talent development at LANXESS in the reporting year and set up a new global, cross-divisional and cross-hierarchical talent program. The program is particularly geared towards high-performing employees who have the potential to develop towards major leadership roles at LANXESS in the next few years. Employees from 15 different business units and Group functions took part in the first cycle. The aim is to encourage cross-departmental career development and strengthen expertise for the LANXESS organization of the future. Key topics include dealing with complexity, new forms of collaboration, and digital and agile management principles.

Promoting life-long learning of our employees was also a high priority for our HR development in 2018. In the EMEA region (excluding Germany), for example, 89% of our employees received training to further their career or skills in the reporting year. On average, each employee received 45 hours of training. This targeted HR development enabled us to fill almost one third of all vacancies in this region with qualified internal applicants.

To keep on expanding the learning options for our employees and make them flexible, digital learning formats are already a core part of our training portfolio. For instance, in 2018, we provided our employees with 8,223 digital learning formats (2,857 in English, 2,683 in German and 2,683 in other languages) to improve their IT skills. We will also take more account of the need for digital, virtual management in our leadership training programs in the future. For instance, in the reporting year, we revised the leadership training course "Leading Leaders," geared towards employees with managerial responsibility for at least two reporting levels, and integrated exercise units that provide training in virtual leadership skills.

Leadership at the LANXESS production plants is equally important to us. Following the successful piloting of our newly established basic training for new plant managers, we incorporated this into our training portfolio in the reporting year, further emphasizing the importance of safety and quality to LANXESS. A second training module specifically for the target group of plant managers is in the planning stage.

International deployments are another key component of our systematic HR development. At the end of 2018, 51 employees – i.e. around 1.6% of our specialist and managerial staff – were working outside their contractual country as expatriates. Along with targeted global exchange of expertise through deployment of experts and managers, it is our ongoing aim to build up local management with specialist knowledge and expertise and assign challenging tasks to suitable employees at our international sites. At sites outside Germany, 87% of our leadership positions are currently held by local employees.

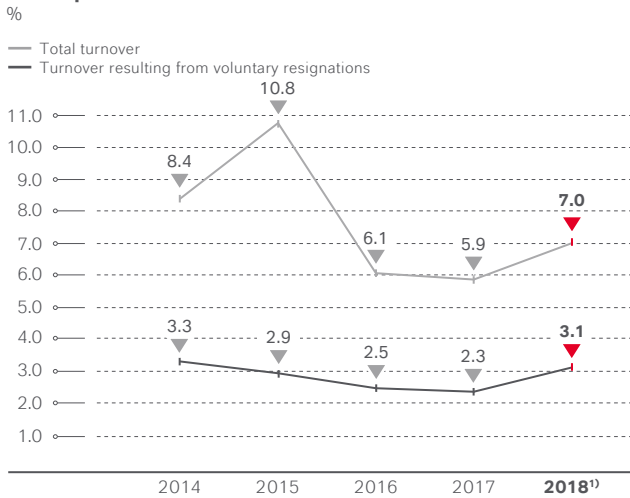
Employee commitment as a key success factor

Committed employees are the key to strong company performance, successful change and ultimately long-term corporate success. Accordingly, we intend to pay even more attention to encouraging the commitment of our employees in the future through leadership ability, performance management and our desired corporate culture. Organizational responsibility for the topics of leadership and performance management lies with the People Management department, which directly reports to the management team of the Human Resources department. People Management works closely together with the Corporate Culture office, also based in the HR department.

As part of our corporate culture, we regularly ask our employees for feedback. To this end, we use a wide range of surveys to allow feedback relating to the satisfaction and commitment of the various employee groups.

For instance, in 2018, we surveyed our managers worldwide about their satisfaction with what LANXESS offers as an employer. Of the more than 3,000 people contacted, around 2,000 took part in the survey – a response rate of around 65%, which is above average for the market. The results were evaluated in detail on the basis of various criteria: for instance, diversity aspects such as gender-specific perceptions of issues were also assessed. Our offerings relating to pensions, healthcare, the LANXESS bonus and work content were rated particularly positively. By contrast, respondents saw room for improvement in flexibility and development, specifically on issues such as workplace rotation and mentoring. Therefore, we aim to offer more options in these areas in the future. We are already taking big steps in this direction with our new, global talent program, which is also intended to include aspects such as mentoring and encourage international career development, as well as our new guiding principles on flexible working hours and mobile working ([see page 27](#)).

In Brazil, we took part in a cross-company survey on commitment in 2018. 313 employees replied, a response rate of 64%. With a score of 92.2, LANXESS did very well compared with the other participating companies. The results were assessed in detail, broken down by gender and incorporated into action plans. In other countries – including Singapore, Thailand and Turkey – we additionally initiated "pulse checks" on perception of the working atmosphere and our corporate culture.

Development of turnover over time

1) Continuing operations

We regard the turnover rate based on voluntary resignations as a key indicator for the commitment of our employees. Our goal is to continuously keep this ratio below 3.5% over the next five years. In the reporting year, the global voluntary turnover rate in continuing operations was 3.1%, meaning that we reached our target for this year. In Germany, the rate was 1.2%. Adjusted for ARLANXEO, the rates were 3.3%/1.2%.

The percentage of employees who left our company of their own accord within three years of being hired stood at an average of 1.2% worldwide in ongoing operations in the reporting year.

Turnover Resulting from Voluntary Resignations by Age Group, Gender and Region

%

Age Group	EMEA (excluding Germany)		Germany		North America		Latin America		Asia-Pacific		Total	
	f	m	f	m	f	m	f	m	f	m	%	abs.
<30	6.9	3.1	6.1	3.1	3.9	8.1	3.4	2.9	12.0	19.9	7.0	118
30-49	2.9	2.5	1.8	1.4	14.8	8.1	4.9	1.3	6.2	5.2	3.5	274
≥50	1.6	1.2	0.6	0.3	7.9	5.1	0.0	1.4	2.4	2.6	1.6	94
Total	3.1	2.1	1.9	1.1	9.9	6.6	4.3	1.5	6.9	6.6	3.1	486
Total Region	2.3		1.2		7.3		2.1		6.7			
Total Region (abs.)	58		91		149		17		171			

Early Turnover Resulting from Voluntary Resignations by Age Group, Gender and Region

%

Age Group	EMEA (excluding Germany)		Germany		North America		Latin America		Asia-Pacific		Total	
	f	m	f	m	f	m	f	m	f	m	%	abs.
<30	0.6	1.8	1.7	0.9	3.9	6.2	0.0	0.0	8.7	13.0	3.9	66
30-49	4.1	1.2	0.5	0.5	7.7	5.1	0.7	0.3	1.0	1.8	1.4	111
≥50	0.2	0.4	0.0	0.0	0.4	1.0	0.0	0.0	0.0	0.3	0.3	15
Total	1.5	0.9	0.5	0.3	3.4	3.2	0.5	0.2	2.2	2.9	1.2	192
Total Region	1.1		0.3		3.2		0.3		2.8			
Total Region (abs.)	27		26		66		2		71			

Total Turnover (including Reduction Programs) by Age Group, Gender and Region

Age Group	EMEA (excluding Germany)		Germany		North America		Latin America		Asia-Pacific		Total	
	f	m	f	m	f	m	f	m	f	m	%	abs.
<30	5	13	15	33	4	20	3	8	13	52		166
30-49	23	77	12	54	27	68	23	51	30	107		472
≥50	11	79	28	141	40	62	8	35	2	44		450
Total	39	169	55	228	71	150	34	94	45	203		1,088

%

Age Group	f	m	f	m	f	m	f	m	f	m	%	abs.
<30	8.6	8.0	8.4	5.1	7.7	12.5	10.3	11.5	14.1	21.2		9.8
30-49	6.7	7.1	1.9	2.1	17.4	10.6	16.2	13.1	7.5	7.2		6.0
≥50	9.0	9.9	5.6	4.8	16.7	7.9	52.5	24.0	4.8	14.3		7.7
Total	7.5	8.3	4.2	3.7	15.9	9.4	18.2	15.5	8.4	10.0		7.0
Total Region	8.1		3.8		10.9		16.2		9.6			

We rate our performance in relevant rankings and competition as a further sign of our employees' satisfaction and the attraction of LANXESS as an employer. LANXESS was named as a top employer or as an employer of choice in various countries, e.g. Belgium and China, in the reporting year.

Diversity as a success factor

We regard diversity as a strategic advantage. Therefore, we aim to enhance diversity at LANXESS and use its positive effects for our company and employees. An appreciative organizational culture that is open to all people – regardless of age, gender, nationality, disability or ideology – helps us to become more innovative and efficient and to attract and retain promising talents. Recognizing and appreciating diversity is therefore ingrained in our values, our guiding principles as well as our leadership principles. Our diversity dashboard reflects detailed key-data analyses of three dimensions: age, gender and nationality. This enables us to view the respective development at the regional, national and global levels and derive corresponding strategic measures.

Ratio of Disabled Employees at German Companies

	2014	2015	2016	2017	2018
Ratio in %	5.4	5.5	5.6	5.9	5.7

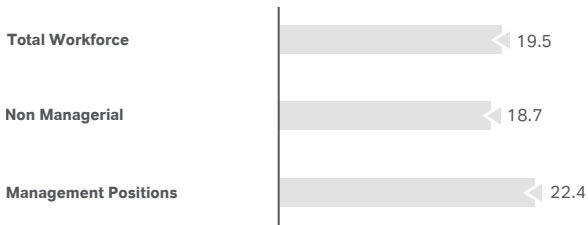
One of our global focal points is gender diversity. We are taking various measures to increase the proportion of women in the company. We are gearing our employer branding and sourcing more heavily toward women, making appointment processes more objective via a multiple-assessor principle, defining criteria for identifying talent, and improving opportunities for a better work/life balance (see page 27). We will also use the findings from the survey of our managers conducted in the reporting year (see page 22) to optimize these opportunities, for instance. Regional and local diversity activities accompany our global measures. For example, our Indian national company, which set up the "Breaking the Stereotypes" initiative for career advancement of women in 2017, won the "Working Mothers & AVTAR Best Companies for Women in India Award" in the reporting year.



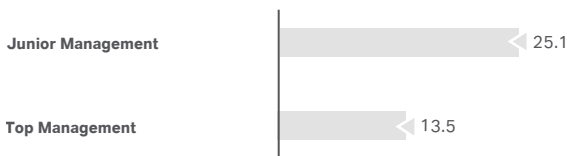
Employees by Age Group, Gender and Region

Age Group	EMEA (excluding Germany)		Germany		North America		Latin America		Asia-Pacific		Total
	f	m	f	m	f	m	f	m	f	m	
< 30	58	167	179	656	58	170	26	65	88	223	1,690
30–49	338	1,049	628	2,584	153	649	140	373	407	1,490	7,811
≥ 50	124	785	514	2,972	233	787	16	146	45	319	5,941
Total	520	2,001	1,321	6,212	444	1,606	182	584	540	2,032	15,441
Total Region	2,521		7,532		2,050		766		2,572		

Proportion of women
%



Proportion of women in management positions
%



Among other things, our diversity measures are instrumental in achieving our target, set in 2012 as part of the DAX 30 self-commitment, of increasing the proportion of women in middle and top management worldwide to 20% by 2020. At present, the figure is 19.2%.

In addition, the German Act on Equal Participation of Women and Men in Executive Positions in the Private and the Public Sector commits us to set targets in Germany for aspects such as the proportion of women at the two management levels below the Board of Management and to determine the target date for attainment of the proportion of women. In 2017, the Board of Management and the Supervisory Board approved the targets with an implementation deadline of June 30, 2022: The proportion of women is to be 15% for the first level below the Board of Management and 25% for the second level. Furthermore, at least one woman is to be appointed to the LANXESS Board of Management in the above-mentioned period. At the end of 2018, the proportion of women at the first management level below the Board of Management was 13.8%. At the second management level, it was 19.2%.

Proportion of Women on the Board of Management and at the Top Management Levels

Proportion of women	2015	2016	2017 ¹⁾	2018 ²⁾	Target	Target date
First level below the Board of Management	9.8%	9.8%	11.6%	13.8%	15%	June 30, 2022
Second level below the Board of Management	20.5%	25.1%	23.9%	19.2%	25%	June 30, 2022
Board of Management (number of women)	0	0	0	0	1 woman	June 30, 2022

1) Year when target was set
2) Continuing operations

The proportion of women at the second management level below the Board of Management has been fluctuating since 2015 due to M&A activities. In 2018, the proportion of women also fell due to a change in the reporting structure below the Board of Management associated with the introduction of an additional reporting level at the regional level.

The proportion of women in top management (see the chart above) differs from the proportion of women at the first two management levels below the Board of Management (see the table above) because the definition of top management in the chart is geared towards our LANXESS-internal management grades, whereas the legal definition of the first two management levels was applied in the table.

Overcoming demographic challenges

Two regions of commercial significance for LANXESS – Europe, especially Germany and Belgium, and the U.S. – are hit particularly hard by the problem of an aging society. Accordingly, competition for qualified young talent is intensifying. This particularly applies to scientific and technical careers. We are countering this challenge with an extensive demographic program called XCare. The program, originally designed and implemented for our German companies, is currently being rolled out globally. It is aimed at providing solutions to the challenges of a rise in the average age of our employees, combined with an increasing shortage of young talent. The measures we are bundling under the umbrella of XCare extend to five action areas:

- › People and Health
- › Work and Training
- › Time and Organization
- › Career and Family Life
- › Saving and Pensions

All services relating to career and family, health and pensions apply to our core workforce. Even so, some individual services in the regions may have differing structures and be locally adapted to the needs of our employees. Our core workforce includes all employees with a permanent full-time or part-time employment contract. As of December 31, 2018, this was 93.5% of our total workforce worldwide.

LANXESS Employee Structure by Employment Type, Gender and Region (also including employees on fixed-term contracts)¹⁾

Contract	EMEA (excluding Germany)		Germany		North America		Latin America		Asia-Pacific		Total
	f	m	f	m	f	m	f	m	f	m	
Permanent contract	520	2,001	1,321	6,212	444	1,606	182	584	540	2,032	15,441
Full-time	459	1,835	960	6,028	435	1,604	181	584	532	2,032	14,649
Part-time	61	166	361	184	9	2	1		8		792
Temporary contract	24	35	153	704	5	6	27	47	20	59	1,080
Full-time	21	34	133	682	2	6	27	47	18	58	1,028
Part-time	3	1	20	22	3				2	1	52
Total	544	2,036	1,473	6,916	449	1,612	209	631	560	2,091	16,521

1) In fiscal year 2018, we employed a total of 90 temporary staff members (11 women and 79 men) at our German companies.

People and health

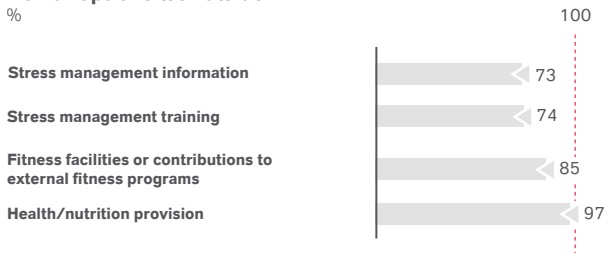
Our occupational health management is based on raising all employees' awareness of their own health and motivating them to act on their own initiative and adopt healthy behaviors in their professional and private lives.

In the context of our occupational health management, in the reporting year, we offered our employees at all German sites a medical check-up in order to prevent cardiovascular diseases. More than 1,300 people took up this offer. As it proved so successful we will be offering a medical check-up again in 2019. In addition, our employees in Germany received €200 credit for booking a wide range of health-related options on the digital platform "Machtfil" in 2018. LANXESS pays 80% of the costs for each course booking until the budget is used up. Around 43% of our German LANXESS employees have already registered, and as of the reporting date, 8,982 health units had been booked, with massage, yoga and fitness options proving most popular.

Where preventive measures are no longer taken in the context of health management, we ensure with our company integration management scheme (BEM) that employees with long-term illnesses in particular can resume work after their recovery. BEM has proven a great success at all German sites for several years now. In 2018, 40% of invited employees again took up the offer of a personal consultation with the site-specific BEM teams.

We also offer our employees wide-ranging measures to promote health and wellbeing at our international sites, e.g. medical check-ups, training on stress management and fitness or dietary options. With the global implementation of XCare, we have also started to give our health concept Xhealth a stronger global focus.

Health options worldwide



Coverage is shown in percent for each initiative with regard to the countries and the total number of employees (LANXESS including ARLANXEO).

We address the topic of occupational safety with our global program Xact (see page 28).

Work and training

In the medium term, illness and retirement – both regular and early – will mean that many vacancies require filling, especially in career paths such as chemical production technician, mechanic/fitter and engineer. For instance, 42 additional "demographic jobs" were approved in the reporting year, all of which were utilized. This means that we have so far created around 80 demography positions. We will again be creating extra jobs in key positions in 2019 to counter demographic change.

In the context of the HR transformation project, we have also started to revise our existing workforce planning process and set up a global strategic workforce planning process. The aim is to simulate the long-term staffing supply – taking into account retirements, natural turnover, etc. – and compare it against our long-term staffing requirements, taking into account the corporate strategy and technological changes. This enables us to identify staff shortages at an early stage and instigate appropriate HR measures.

Time and organization

Via flexible working-time models, we intend to ease the workload of employees in all phases of life, e.g. employees with family or older employees, keep their expertise in the company and enhance our appeal on the labor market. For instance, with the “Flexi 95” project for managers launched in 2017, we are working towards an intelligent way of extending part-time employment to senior management. In the Flexi-95 model, the level of employment is reduced to 95% with a corresponding adjustment to remuneration, meaning that a full-time worker is entitled to 13 extra days off per year. Given the positive response to the pilot project (71 participants since 2017), a decision was made in the reporting year to fully incorporate “flexitime” into our offering to senior management and also launch a pilot project for junior and middle management.

In view of the results of the survey of our managers (see page 22) and the desire it reflected for more flexible working and working-time models as well as greater transparency regarding existing options, we approved global flexibility principles in the reporting year under the heading “Xwork – Flexible Work”. We will develop country-specific guidelines on flexible working conditions from these principles in 2019 and introduce corresponding models. Guidelines concerning this for Germany were approved in the reporting year. These have been communicated and implemented since the start of 2019.

Career and family life

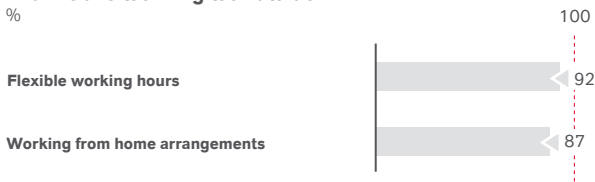
Work/life balance matters to an ever-growing number of employees. A total of 7% of our employees in Germany aged between 20 and 40 made use of the option to take parental leave. Of this figure, 56% were fathers. 89% of the employees who ended a parental leave period in 2018 returned to a job at LANXESS.

Our fully occupied Xkids daycare center in Leverkusen has places for around 50 children aged from six months to six years in two preschool groups and one nursery group. In addition, we provide our employees with staff places at Cologne daycare centers, emergency childcare places and a Germany-wide agency service for childcare staff and facilities.

The statutory maternity rights in Germany and similar models in the European Union are by no means standard worldwide. Therefore, at our sites outside Europe, we are assessing whether we can introduce or expand country-specific models for our employees.

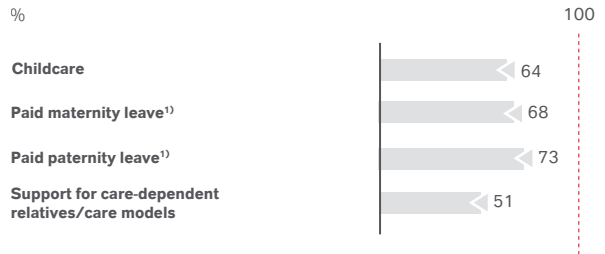
Against a backdrop of demographic change, care is a major issue in Germany. The centerpiece of the LANXESS care model is caregiver leave, which allows our employees to reduce their working hours by more than their pay during the care period and to work off the hours commensurate with the pay they received after their return. Caregiver leave and time off have been used by 95 employees in Germany since the LANXESS care model was introduced.

Options for flexible working hours and mobile working worldwide



Coverage is shown in percent for each initiative with regard to the countries and the total number of employees (LANXESS including ARLANXEO).

Options for childcare, maternity/paternity leave and care models worldwide



1) Beyond legal requirements

Coverage is shown in percent for each initiative with regard to the countries and the total number of employees (LANXESS including ARLANXEO).

Saving and pensions

We continued the long-term account for pay-scale employees in 2018 as agreed and as per collective bargaining agreement. The outstanding participation rate remained at a high level of around 96%. A total of 53% of our employees worldwide and 97% of employees in Germany benefit from a reserve-funded pension plan.

Xact: Global initiative for greater safety

Our global safety initiative Xact pursues the goal of gradually lifting the safety culture of LANXESS to a higher level. Starting with top management, all employees are expected to work together to improve safety in the Group. We are doing this because we firmly believe that all industrial accidents are avoidable. As a specific target for occupational safety, we aim to reduce the lost time injury frequency rate (LTIFR, known as MAQ in Germany) by more than half by the end of 2025 compared to the reference year of 2016 (LTIFR of 2.0).

Six Xact safety rules, the core principles of safe working at LANXESS, address the key points with which all employees – from the factory to the office, regardless of hierarchy and position – can make an active contribution to their own safety and that of their colleagues. They are derived from the Xact “guidelines and principles,” the worldwide framework for the orientation of our safety culture. We revised these guidelines and principles in 2017, and unveiled them throughout the Group in April 2018 as part of the newly inaugurated global LANXESS Safety Week.

As ever, the work of the Xact team is focused on fostering a positive culture of safety and greater alignment towards behavior-based safety. To this end, we developed and piloted a systematic process in the reporting year. It is to be gradually rolled out in 2019 – starting with Germany and the USMCA region. The fact that personal dialog is key to improving occupational safety is clear from recent experience at our site in Liyang, China. In 2017, we set up a project there to stabilize working processes, strengthen managerial responsibility and raise employee awareness of safety issues. In the reporting year, a significant improvement in safety awareness and more stable processes, such as the permit procedure, were noted in the context of an audit.

Another major project in 2018 dealt with lock-out tag-out processes. These are aimed at fixing important actuators of technical equipment – such as switches or valves – in a specific position and thus preventing the equipment from being unintentionally restarted during maintenance work, for instance.

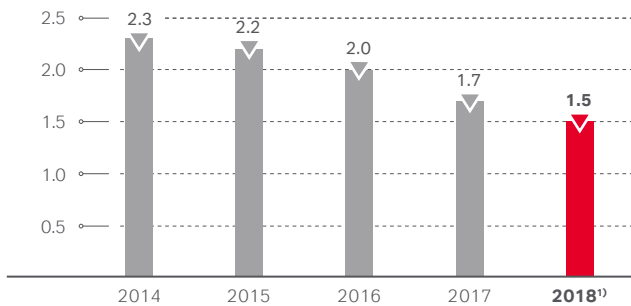
Active, ongoing communication is a top priority for us when it comes to matters relating to safety. The pulse-check survey that we conduct every year among all LANXESS employees is an important tool here. It gives them the opportunity to express their personal experience of key aspects of safety at LANXESS. One aim of the anonymous survey is to determine whether the individual employee is involved in safety work – as intended – or receives positive feedback for safe work. More than 60% of our employees took part in the survey in 2018. For the first time, they were also asked whether their supervisors practice safety. Over 90% of respondents answered the question with “always” or at least “mostly.” However, the results differed substantially in terms of individual regions, organizational units and hierarchy levels. For instance, responses to the question on positive feedback from supervisors in the event of safe work were far less affirmative than the global average in countries such as Germany. The pulse-check survey again helped us to identify approaches to optimizing measures in a highly targeted way.

We also want to reach an improved shared understanding of occupational safety with service providers who perform technical services for us, as well as including them in our safety culture. For instance, our partners must demonstrate that they maintain their own safety-management system and have carried out all safety training that is required of all employees who work for us. Regardless of this, we provide personal safety briefings for employees of our partner companies.

Indicators for the assessment of occupational safety at LANXESS are the recordable incident rate (RIR: number of incidents per 200,000 working hours that have to be reported according to the Occupational Safety and Health Administration) and the lost time injury frequency rate (LTIFR: accidents per million hours worked) for accidents with days lost. The LTIFR in 2018 was 1.5. Adjusted for ARLANXEO, the LTIFR in the reporting year was 1.4. As in previous years, no fatal accidents occurred in 2018. The RIR, which also includes accidents with no days lost in accordance with OSHA rules, was 0.6 in 2018 and in continuing operations as well as after adjustment for ARLANXEO. Companies have been taking occupational safety increasingly seriously in recent years. This increased focus at all hierarchy levels has helped to continuously reduce serious accidents on a lasting basis.

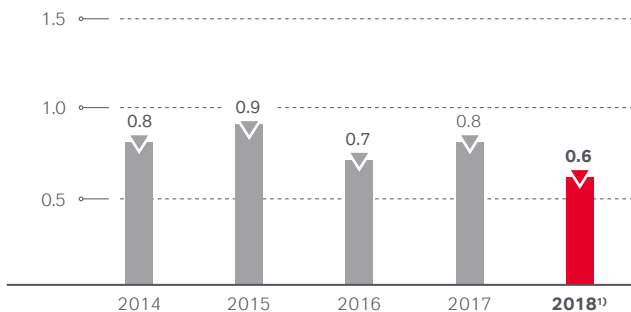


Work-Related Injuries to LANXESS Employees Resulting in Absence from Work (LTIFR)



1) Continuing operations

Work-Related Injuries to LANXESS Employees That are Reportable in Accordance with OSHA Regulations (RIR)



1) Continuing operations



All accidents as well as significant near-misses are systematically analyzed with regard to their cause and possible preventive measures. The results of these investigations are, for instance, incorporated into safety updates that are made available to the entire organization. We regard the sharp fall in the LTIFR in recent years as evidence that this structured transfer of knowledge and the many measures to improve occupational safety at LANXESS are having a positive effect.

Rewarding performance transparently and fairly

LANXESS pays its employees worldwide transparent remuneration in line with market conditions that also includes a bonus system geared towards the company's long-term success. In total, 89% of our employees worldwide receive variable remuneration. As a result of the advancing remuneration integration of employees who joined our company in 2017 following the acquisition of Chemtura, the figure is rising.

Above the pay scale, and, in most countries, within the pay scale, we also provide a performance-related remuneration component on top of fixed pay. This is the annual performance payment (APP), which goes to employees in countries that participate in this program. This bonus payment is linked to the Group's attainment of a defined EBITDA target. Further individual targets in areas such as safety and sustainability additionally apply to top management. In 2018, we shared around €130 million of our profits for 2017 with our employees worldwide.

Furthermore, through the individual performance payment (IPP), managers can also reward outstanding performance of an employee during the year promptly and with no red tape. Around €10.9 million was assigned for outstanding individual performance alone in fiscal year 2018 (including around €7.6 million in Germany). At present, around 80% of our employees worldwide are entitled to receive the IPP. In relation to this, they also receive a prompt assessment of their performance and their career prospects. This further substantial year-on-year increase is attributable to the remuneration integration of the employees taken on in fiscal year 2017.

Under the LANXESS stock program that we set up again in 2018, all LANXESS Group employees working in Germany can purchase shares at a 30% discount. The shares were purchased at an average price of €69.99 on the Frankfurt Stock Exchange. The participation rate was 60%. As of the reporting date, our employees and directors held around 1% of the LANXESS shares in total in the context of participation programs.

In addition, we offer a long-term incentive program for our managers in Germany. There are similar programs in the U.S., India and China. The Long-Term Stock Performance Plan (LTSP) 2018–2021 consists of four tranches commenced each year, and tracks the performance of the LANXESS share compared with the MSCI World Chemicals Index, over a period of four years in each case. The four-year term and the potential growth in value makes this program an attractive long-term incentive and retention tool. In addition, we have implemented a new Share Ownership Guideline (SOG) for the Board of Management and our top-level managers. This new guideline emphasizes trust in the strategy and long-term success of LANXESS. 97% of those eligible participated in the current program in 2018.



Recognizing, promoting and using good ideas

With our ideas management system, we systematically promote the development and implementation of suggestions for improvement in order to keep on generating impetus for improving economic efficiency, occupational safety and environmental protection. Many good ideas were again implemented in 2018.

Idea Management

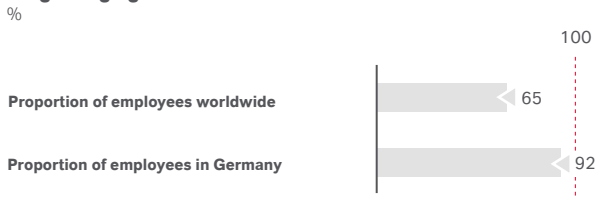
	2014	2015	2016	2017	2018 ²⁾
No. of new ideas	2,807	2,027	2,442	2,262	1,633
Employees entitled to participate	7,532	7,390	7,908	7,655	7,206
TMQ ¹⁾	373	274	318	295	267
Savings (€ million)	2.52	2.56	2.26	1.58	0.92
Bonuses (€ million)	1.0	0.95	0.8	0.65	0.34

1) TMQ: rate per thousand employees
2) Continuing operations

Partnership-based discussion

Dialog with chemicals social partners – trade unions and employer associations alike – as a principle of consultation in action is the global practice at LANXESS. As part of this, we also respect the freedom of association of our employees in accordance with the International Labour Organization (ILO) and the Global Compact, and comply with collective bargaining agreements.

Proportion of employees covered by collective bargaining agreements



We regularly seek dialog with employee representative committees in Germany, Europe and worldwide, provide information on our corporate objectives, and involve employee representatives in organizational changes at an early stage. In view of the complete separation of ARLANXEO, company management and employee representatives jointly devised solutions for a successful spin-off in the reporting period and worked closely together to implement them.

Fair dealings with employee representatives and trade unions are also a top priority for us outside Europe. In South Africa, for instance, we comply with International Labour Organization (ILO) standards with respect to our employees' freedom of association. This includes regular exchange between local management and trade-union representatives as well as binding, collectively agreed-upon regulations on remuneration and working conditions.



RESILIENT SOURCING

At LANXESS, raw materials, other materials, equipment and services are subject to globally standardized requirements with regard to safety and environmental protection. Their procurement is the responsibility of the Global Procurement & Logistics (GPL) group function, the head of which reports directly to the Board of Management member Dr. Hubert Fink. In close coordination with our internal stakeholders, GPL organizes group-wide procurement, establishes corresponding guidelines, and initiates measures to promote purchasing synergies and sustainable behavior by our suppliers.

In the year under review, procurement transactions with around 20,000 suppliers were processed. A global procurement guideline for the entire Group defines our employees' conduct when dealing with suppliers and their employees. We have specified standardized workflows in the context of procurement in more detail in a process description. In our training program for strategic purchasers revised in 2018 (ProTrain), we also give much more attention to the topic of sustainability. Based on the principles of the U.N. Global Compact, the International Labour Organization (ILO), Responsible Care® and other CSR codes, we expect our suppliers to comply with national and other applicable laws and regulations for environmental protection, health and safety at work and with regard to labor and recruitment practices. Acceptance of the requirements of our "Supplier Code of Conduct" is an essential prerequisite for any supplier wishing to work with us.





In the interests of safe processing at our production facilities, there is a particular focus on the procurement of raw materials. It is thus essential for suppliers to present an up-to-date safety data sheet for the procurement of each raw material. In the case of raw material deliveries from non-European suppliers, our purchasing department clarifies which obligations have to be fulfilled under the REACH Regulation. Since the acquisition of Chemtura, we have also been using the raw material tin, which is classified as a conflict mineral. We purchase tin only from certified dealers who can prove that their goods come from a conflict-free source.

As a founding member of the “Together for Sustainability” (TfS) initiative, our goal is to promote sustainability, increase transparency throughout our supply chain, and thereby further minimize procurement risks. The initiative, which is currently supported by 22 international chemicals companies with an accumulated purchasing volume of more than €300 billion, is aimed at assessing and continuously improving sustainability activities in the chemicals industry supply chain. The focus here is on human rights, prevention of child labor, labor standards, occupational safety, environmental protection, and business ethics. Seven years after it was launched, TfS has established itself in the chemicals industry as the clear standard for a sustainable supply chain.

Because the assessment results and audit reports are shared within the initiative, we once again had a significantly increased number of sustainability assessments (more than 9,000) and audit reports (around 1,200) available to us as of the end of 2018. As in the previous year, suppliers whose sustainability activities have been assessed in the context of TfS represent 70% of our relevant procurement volume. The relevant procurement volume comprises all suppliers from which we procure more than €20,000 of goods or services per year. In addition, the TfS sustainability assessment is incorporated into our newly established strategy process, which must be applied to every contract negotiation or renewal with a purchasing volume of more than €5 million.

It is also encouraging to see that our suppliers' average Ecovadis sustainability assessment of 45 points is above the Ecovadis benchmark of 42 points. With regard to our suppliers' weak points, no relevant trend could be discerned in 2018 again. There were two cases in the year under review in which we ended our collaboration with suppliers due to sustainability aspects.

Data from Ecovadis also form the basis for a systematic sustainability risk analysis that we will implement in 2019. Taking account of risks in relation to specific goods groups and countries, we want to use this tool to identify suppliers with an increased sustainability risk. Our goal is to cover all suppliers by the end of 2019 and thus calculate a sustainability risk score for LANXESS for the first time. Starting from 2020, we then intend to initiate targeted measures to improve our suppliers' sustainability and thereby gradually lower our sustainability risk score. These measures could include, for example, TFS audits at suppliers with an increased risk.



SAFE AND SUSTAINABLE SITES

More than ever, acting sustainably in the chemicals industry means taking responsibility for products and manufacturing processes. All over the world, we are seeing a high level of convergence of environmental and production standards. What used to be positive distinguishing features in the area of sustainability are now increasingly essential worldwide to the mere ability to produce and sell chemical products. Yet we would be failing in our commitment to quality if we simply restricted ourselves to meeting standards – even if they are more exacting than in the past. Instead, our commitment is to make our production safe and sustainable in every respect, thus ensuring our long-term competitiveness.

Our PTSE Group function, the head of which reports directly to the Board of Management member Dr. Hubert Fink, is responsible for this. PTSE develops and maintains company-wide standards that ensure responsible use of chemicals at LANXESS. They define requirements and govern responsibilities for health protection, environmental protection, handling of chemicals, plant safety and safety precautions in the workplace. Continuous training of our employees and regular audit-based reviews of our health, safety and environmental management systems are aimed to ensure that the requirements are incorporated into our processes systematically and sustainably.





Uniform standards in production

LANXESS operates a total of 74 production sites and has a presence in 25 countries (investments \geq 50% and 12 wholly-owned ARLANXEO sites, as of December 31, 2018). Our wide range of products requires the use of many different chemical and technical processes. Uniform standards for planning, building and operating plants ensure a high level of process, plant and occupational safety.

Handling chemical substances and working with technical equipment involves health and safety risks. We identify these risks and potential threats systematically worldwide – for new and existing plants – and minimize them by implementing defined preventive and protective measures. Experts examine implementation of LANXESS guidelines and local regulations for safe operation of our plants on-site via targeted spot checks in audits whose frequency is geared towards the respective risk profile. Compliance with safety standards must be regularly verified worldwide for every plant via audit opinions. In 2018, a total of 34 production facilities (previous year: 37) were examined in the context of HSE compliance checks (health, safety and environment), including 15 (previous year: 17) in Germany. In the reporting year, the results of the inspections again showed improvements compared with previous years. Furthermore, we completed our gap analyses for the plants acquired from Chemtura. The gap analyses mainly highlighted the differences in the management-system approaches and are now helping to roll out LANXESS management rules and standards at the sites.

We use an electronic reporting system (Incident Reporting System – IRS) to record accidents and events worldwide in line with uniform regulations. Injuries, transportation accidents, near-accidents, environmental incidents, instances of damage and security-relevant incidents such as theft are documented. Each event is carefully analyzed in order to draw conclusions as to how we can avoid similar incidents in the future.

All measures count towards our goal of continuously reducing the number events relating to inadequate system and process safety.

A few minor incidents occurred in the 2018 reporting year. No people were injured in any incident. Further information can be found in the GRI Content Index on [page 199](#).

Global hazardous-goods and transport-safety management system

With a global hazardous-goods and transport-safety management system, we ensure that we minimize or entirely avoid hazards. We coordinate, monitor and review implementation of relevant hazardous-goods and transport-safety regulations as well as in-house regulations centrally in a department that is specifically responsible for this.

Central classification of our products in line with international, regional and local hazardous-goods regulations ensures that the respective requirements are interpreted uniformly while taking regional and local aspects into account. Classification determines such things as the type of containment (packaging and tanks), marking and labeling, the permitted modes of transport and transportation routes as well as measures that operational staff must take if a transportation event occurs. The corresponding classification data is stored in the safety-data system for chemicals at LANXESS. In recent years, we have gradually connected an increasing number of countries and Group companies to the system, and we continued this process in 2018 by rigorously integrating the Australian, Japanese and Korean sites. We will integrate the as yet unconnected sites in Argentina, Uruguay and Russia into the system in 2019. We have already commenced integration of the former Chemtura sites; this will be carried out regionally as part of the global introduction of the SAP template FIT.

To counter the deficiencies in load securing of general cargo observed in the previous year, the Production, Technology, Safety & Environment Group function and the business units have worked closely together to establish a load-securing standard for LANXESS. This standard was tested in numerous field tests and has already been used successfully at our locations in Brunsbüttel and Leverkusen, Germany. For 2019, we are planning to arrange further load-securing training sessions and introduce our new securing standard at further sites in Germany and abroad.

Storage management

Following the acquisition of Chemtura, we have around 480 warehouses worldwide, operation of which is split roughly 50:50 between us and external service providers. We select warehouses – both our own and those operated by external service providers – according to logistics, safety and security, environmental protection and cost-effectiveness aspects. We apply a globally standardized warehouse concept that takes into account the substances stored and meets fire protection and occupational health and safety requirements.





Environmental responsibility

We regard preservation of natural resources – for example by using raw materials and energy as efficiently as possible – and identification of further potential for reducing emissions and waste as an ongoing task in the context of our environmental responsibility and expertise. We equip all new production sites in line with the state of the art, including in terms of environmental standards, taking local requirements into account.

Sparing use of water

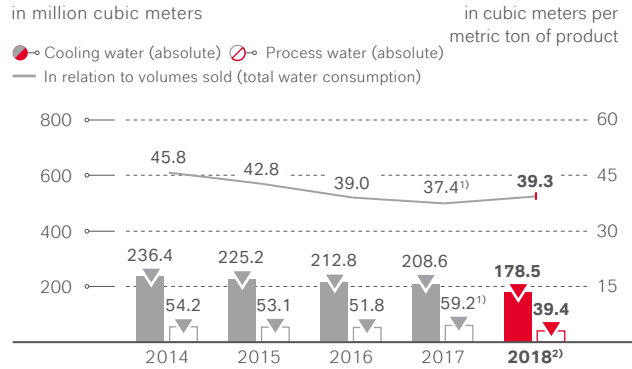
As a chemicals company, we rely on water for our production. We use it mainly for cooling, as an input material in chemical processes or in the form of steam. In addition, rivers are an important transportation tool, particularly for our networked sites in Germany. Through access to drinking water at our sites, we are also meeting our responsibility to our employees. We are aware that our responsibility regarding the most precious of resources does not end at our factory gates. Water availability and quality are global challenges that we can face up to locally as a company. In addition to the efficient use of water, wastewater management is especially important here. SDG 6 sets out specific action areas that we gear our operations towards: Access to water, water quality and quantity, water management and governance as well as protection of ecosystems.

To enable us to derive context-based measures for LANXESS, we have performed a water-stress analysis for all our sites. First, we used the Water Risk Map of the World Wide Fund for Nature (WWF). This assessment, which initially takes only the geographical location of the sites into account, showed that 14 of our sites are in water-stress areas. In a second step, we added a production-related risk assessment for 87% of our sites in 2018. Our assessment was based on 27 criteria – including dependency on water quality and quantity as well as regulatory challenges – and was set in relation to water consumption at the site. The combination of geographically-related water stress and the production-specific risk forms the basis on which we now derive targets and measures. For example, in the reporting year, we included the Chinese government’s new program for protecting the Yangtze River (Eco-Environmental Protection Plan Covering the Yangtze River Economic Belt) in our risk assessment and evaluated it within our risk-management system.

We are also making major contributions to the water-related SDGs with the products of our Liquid Purification Technologies business unit. In addition, we are committed to our sites at the local level. For instance, in El Dorado (U.S.), we are a long-standing member of the South Arkansas Sparta Aquifer Recovery Initiative.

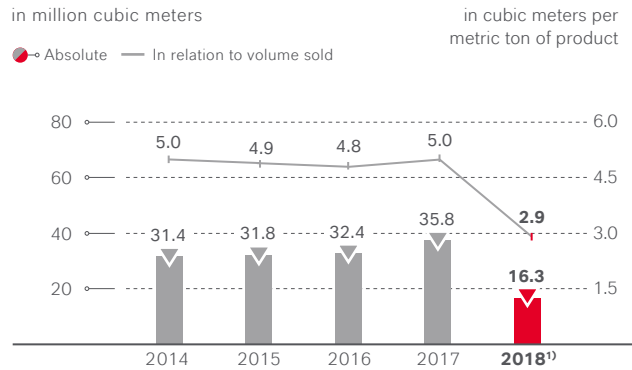


Water Consumption



1) Figure restated
2) Continuing operations

Production Wastewater



1) Continuing operations

Compared with the previous year, total water consumption decreased in 2018. The amount of cooling water was further reduced, as was the case in previous years. In the reporting year, overall water consumption increased disproportionately to the production volumes, which means that specific water consumption increased and the positive trend observed over the past few years was not continued. This effect can be largely attributed to the higher water intensity of the processes in the new LANXESS portfolio and the sale of our remaining interest in ARLANXEO. Another influencing factor was the exceptionally hot summer in Central Europe, which meant that much more cooling water was required in our facilities in Germany and Belgium.





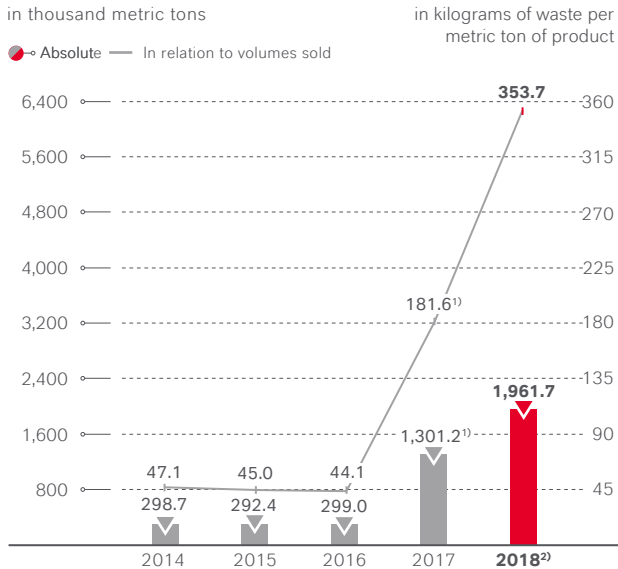
We reduced the volume of wastewater in 2018 in both absolute and specific terms. This development can also be largely attributed to the change in portfolio in connection with ARLANXEO.

Sustainable waste management

Rigorous material-flow management from use of raw materials to product finishing is aimed at ensuring that we use resources as efficiently as possible and minimize our waste volumes. Where waste is unavoidable, we try to use or sell it as secondary raw materials or energy sources. To keep the amount of waste that has to be disposed of to an absolute minimum, we take a wide range of measures to continuously improve recovery in our production processes.

To ensure continuous optimization of our material-flow management, we have committed ourselves to achieving the targets defined in the international program Operation Clean Sweep (OCS) of the "Society of the Plastics Industry." OCS aims to prevent plastic particles and pellets from entering the maritime environment and having an undesired impact. By joining in 2016, we made a commitment to train relevant employees, to implement measures to prevent the release of pellets at our facilities and to require our business partners to also take active steps to prevent pellet emissions. Our goal is to systematically integrate the OCS program's requirements into LANXESS's management system and to implement them across the company.

Total Waste

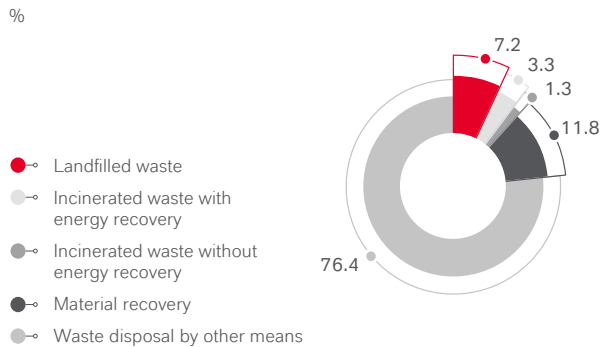


1) Figure restated
2) Continuing operations



Compared with the previous year, the total amount of waste generated once again increased considerably. This is primarily attributable to the first-time, all-year inclusion of the Chemtura production sites, which we acquired in 2017. In the previous year, Chemtura was included only as of April due to the integration activities taking place during the year. The biggest share of our waste volumes comprises slightly polluted wastewater at our El Dorado site in the U.S., which is declared as waste. We more than doubled the level of material recovery in 2018.

Waste for Disposal



Systematic recording of key data

To record key data on safety and environmental protection systematically worldwide, we use an electronic data-entry system. This enables us to calculate a wide range of HSE performance data for each business unit and site worldwide, which is used as a valid data pool for strategic decisions as well as internal and external reporting. In addition, it maps the progress that we make with our global sustainability targets (see the table on page 10). Data is gathered only at production sites where we have investment of over 50%. For 2018, ARLANXEO will no longer be included in our reporting on environmental and safety issues. Data for both our continuing operations and for ARLANXEO will be included only in relation to our key performance indicators and target figures.

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft has been auditing our HSE key data and the requisite data-gathering processes with limited assurance since 2012. The current independent assurance report can be viewed on [page 195](#) of this report.

Environmental and Safety Performance Data*

	2016	2017	2018	
			Continuing operations	ARLANXEO
Safety				
Occupational injuries to LANXESS employees resulting in at least one day's absence (per million hours worked) (LTIFR ¹⁾)	2.0	1.7	1.5	0.6
Volume sold²⁾ in thousand metric tons/year	6,781	7,167³⁾	5,547	1,651
Energy in petajoules (1015 joules) ³⁾ (GRI 302-1)	48.4	51.9³⁾	28.0	24.9
Direct energy sources				
Non-renewable	12.6	14.6 ³⁾	11.8	3.0
Renewable	0	0	0	0
Indirect energy sources (GRI 302-2)⁴⁾				
Non-renewable	33.8	35.3	14.0	21.9
Other direct energy sources				
From biomass	2.0	2.0	2.2	0
Water in million cubic meters				
Total water consumption (GRI 303-1)	264.6	267.8⁵⁾	217.9	62.6
Surface water	92.1	82.9	49.1	38.3
Groundwater	6.8	8.8	5.3	3.0
Rainwater	0.4	0.4	0.4	0
Wastewater	1.0	1.1 ⁵⁾	1.2	0.1
Other water sources	164.3	174.6 ⁵⁾	161.9	21.2
Cooling water in total water consumption⁵⁾	212.8	208.6	178.5	38.8
Process water in total water consumption	51.8	59.2⁵⁾	39.4	23.8
Atmospheric emissions in thousand metric tons				
Total greenhouse gas emissions CO₂e (GRI 305-1, GRI 305-2)	4,814⁶⁾	5,099⁶⁾	3,209	1,840
Direct (Scope 1) ⁶⁾	1,737 ⁶⁾	1,799 ⁶⁾	1,524	229
Indirect (Scope 2) ⁷⁾	3,077	3,300 ⁶⁾	1,685	1,611
Ozone-depleting substances (GRI 305-6)	0.00182	0.00989	0.00785	0
NO_x, SO_x and other emissions (GRI 305-7)				
NO _x ⁸⁾	2.6	2.7	2.9	0.2
SO ₂ ⁹⁾	1.1	1.0	1.0	0
CO	2.0	2.2	2.1	0.2
NH ₃	0.1	0.1	0.2	0
NM VOC ¹⁰⁾	4.7	5.0 ⁶⁾	1.0	3.9
Wastewater in million cubic meters				
Total wastewater discharge (GRI 306-1)	245.2	244.4	194.8	58.8
Cooling water (uncontaminated, without treatment) ⁵⁾	212.8	208.6	178.5	38.8
Production wastewater (with treatment)	32.4	35.8	16.3	20.0
Emissions in wastewater (after treatment) in thousand metric tons				
Total nitrogen	0.54	0.55	0.5	0
Total organic carbon (TOC) ¹²⁾	1.7	1.8	1.5	0.5
Heavy metals ¹¹⁾	0.0049	0.0054	0.0027	0.0026
Waste in thousand metric tons				
Total weight of waste (GRI 306-2)	299.0	1,301.2³⁾	1,961.7	42.8
Incineration with energy recovery	81.2	78.3 ³⁾	64.9	15.5
Incineration without energy recovery	31.1	28.3 ³⁾	25.0	3.8
Landfilling	112.1	130.4 ³⁾	140.9	6.9
Material recovery	53.1	60.7 ³⁾	231.6	8.7
Other forms of disposal	21.5	1,003.5 ³⁾	1,499.3	7.9
Type of waste				
Hazardous	196.7	578.6 ³⁾	718.4	21.4
Non-hazardous	102.3	722.6 ³⁾	1,243.3	21.4

Explanations concerning our environmental and safety performance data

- 2016/2017: The aggregate data refer to all LANXESS production sites in which the company holds an interest of more than 50%. As LANXESS had an interest of exactly 50% in ARLANXEO, the latter continued to be reflected in the LANXESS Consolidated Financial Statements and was fully consolidated in fiscal years 2016/2017, the environmental data pertaining to the ARLANXEO sites also continue to be included in our key data for this period.
- 2018: As discontinued operations, ARLANXEO is shown separately from continuing operations in reporting year 2018. The two columns add up to the annual key figures for 2018. All charts on environmental and safety performance data present the figures for continuing operations for the reporting year. We included the site in Charleston, U.S., acquired in 2018 in the environmental and safety performance data for continuing operations from February 7, 2018.

2016/2017/2018: Some of the data are based on estimates and projections.

- 1) LTIFR: accident rate per million hours worked resulting in one workday or more lost following the day of the accident, calculated for all employees (including temporary workers) at all sites
 - 2) Volume sold of goods manufactured by LANXESS and sold internally to another LANXESS company or externally (excluding commercial products)
 - 3) The energy volumes given were calculated on the basis of simplified assumptions and typical substance values. They do not include other forms of imported energy (e.g. the energy contained in raw materials).
 - 4) Indirect energy sources are shown in the form of a balance sheet. The volume of energy sold is subtracted from the volume of energy purchased.
 - 5) Equivalent to circulating cooling water
 - 6) The emission factors used for fossil fuels are based on calculations by the U.S. EPA (AP-42 from 1998) and on the IPCC Guidelines for National Greenhouse Gas Inventories (2006). In accordance with the GHG Protocol (2004), the factors for calculating CO₂e are based on the global warming potential (time horizon: 100 years) defined in the IPCC Second Assessment Report (SAR 1995).
All Scope 1 greenhouse gases are calculated as CO₂e. In accordance with the GHG Protocol, the CO₂ emissions from the combustion of biomass are shown separately and are not included in the Scope 1 emissions. The following emissions were produced during the reporting period: 2014: 217 kt CO₂, 2015: 236 kt CO₂, 2016: 212 kt CO₂, 2017: 215 kt CO₂, 2018: 230 kt CO₂
 - 7) All Scope 2 greenhouse gases are calculated as CO₂e. The conversion factors used were provided by the energy producers for 2008 or 2009. Where these were not available, factors from the IEA (International Energy Agency) for 2014 were used for fiscal year 2016, factors from 2015 were used for fiscal year 2017 and factors from 2016 were used for fiscal year 2018.
The Scope 2 CO₂e emissions are calculated using the market-based method in accordance with the GHG Protocol. Using the location-based method, Scope 2 CO₂e emissions for 2018 amounted to 2,081 kt for continuing operations and 1,962 kt for ARLANXEO.
 - 8) Nitrogen oxide (NO_x) calculated as NO₂ (excluding N₂O – nitrous oxide)
 - 9) Sulfur dioxide (SO₂) + SO₃ calculated as SO₂
 - 10) Total VOC (volatile organic compounds) excluding methane and acetone
 - 11) Heavy metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead, tin, zinc)
 - 12) Chemical oxygen demand (COD) is calculated as follows: [COD] = [TOC] * 3. For 2018, the COD for continuing operations is 4.5 kt.
- a) Values restated due to supplementary notifications or change in calculation method



Corporate Citizenship

Our understanding of sustainable sites also includes being a strong and reliable partner for the people locally and in the respective region and taking responsibility for development of the social environment. Our social commitment is based on our corporate expertise and objectives and focused on education, climate protection, water and culture.

Our goals in all these areas are identical:

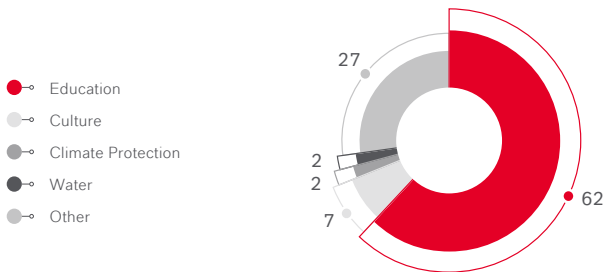
- › Mobilizing resources and people for social commitment
- › Achieving positive impacts on the company, the environment and society

As a company, we aim to play a positive part in improving living conditions, education, training and equal opportunities as well as health and safety. In addition, we are working to attract talented persons, engage in extensive dialog with our stakeholders, have a positive influence on employee motivation and constantly improve our reputation.

As in the previous year, we provided around €1.3 million globally for our projects in 2018. The regional focal points of our activities in the reporting year were the EMEA and USMCA regions.

Social Activities by Topic¹⁾

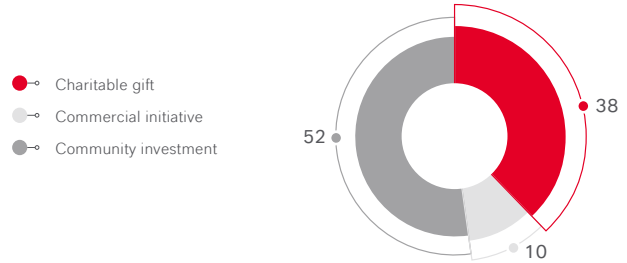
%



1) Number of projects: 175

Social Activities by Type of Investment¹⁾

%



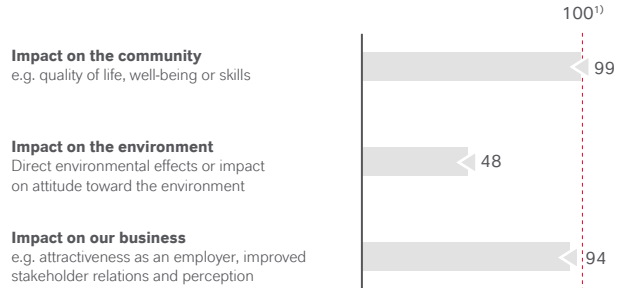
1) Number of projects: 175

We initially assess our projects according to whether they pursue purely charitable ends (“charitable gift”), whether we are investing in the social environment of our sites (“community investment”) or whether we are investing in corporate objectives such as image, sales and income while also generating social value (“commercial initiative”).

In total, more than 100,000 (previous year: more than 233,000) people benefited from our projects. We use a system of performance indicators to measure the social impact of our activities above and beyond the number of people who benefit. For around half of our projects in 2018, we performed an impact assessment, taking into account positive effects in the area around the site and positive environmental effects and impacts on our business. Specific feedback from people who benefit from our projects is a key factor in this context. We regard these indicators as important benchmarks for impact-oriented management of our measures.

Impact dimensions of Evaluated Activities and Projects

%



1) Number of projects: 86



Commitment to education, climate protection, water and culture

2018 again yielded numerous examples of how we put our social commitment into practice: We have been working under the umbrella of the LANXESS education initiative for ten years now and have initiated more than 500 education projects at our sites worldwide in order to get young people interested in the natural sciences at an early age. In the anniversary year, the projects in Germany were devoted to topics including research on water quality and water pollution, and the digital transformation of society. Two-week school vacation courses with natural-science learning content were on the agenda in Korea, while in Japan, children explored the chemical composition and wide-ranging uses of concrete in play-based workshops.

For the fourth consecutive year, we held a research competition in China, entitled "Clean Water for a Better Life". In addition to fostering young academic talent, we also aim to raise public awareness of water problems. Cooperation was a key feature of the competition in the reporting year. For instance, the participating universities were explicitly asked to seek dialog with other faculties, companies or the media in the context of their research projects.

As part of our cultural commitment, we have been sponsoring lit.Cologne as a lead partner since 2010 and the Kölner Philharmonie for several years. The Ozawa International Chamber Music Academy in Japan, which we also support, gives talented young musicians from all over Asia the opportunity of first-class musical training.

Further information on our corporate citizenship activities can be found in the [Corporate Responsibility/Corporate Citizenship section of the LANXESS website](#).



CLIMATE ACTION AND ENERGY EFFICIENCY

With the Paris Climate Agreement, which came into force in November 2016, the international community committed to limiting global warming to less than two degrees Celsius above the pre-industrial level. Accordingly, all signatory nations have set ambitious reduction targets. For instance, in Germany, the "Climate Protection Plan 2050" sets out the interim goal of cutting greenhouse-gas emissions by at least 55% compared with the base year of 1990 by 2030. Industry is expected to contribute towards this with a reduction of between 49% and 51%.

However, a progress report at the U.N. Climate Change Conference in 2018 drew sobering conclusions. Consequently, even more drastic measures to reduce global greenhouse-gas emissions will be required in the decades ahead in order to reach the desired target. The summit also resolved that uniform transparency regulations and standards for recording CO₂ levels are to apply to all states in the future. In view of this, companies must also expect much stricter regulatory requirements for measures and reporting on climate protection in the years ahead.

Along with numerous other European chemicals companies, LANXESS expressly committed to climate protection and the associated obligations ahead of the Paris Climate Change Conference. We have been working continuously to decrease emissions of environmentally harmful greenhouse gases ever since our company was founded – with considerable success: Since 2007, we have roughly halved our global scope 1 emissions. With our sites in Germany, we are already meeting the national cutback requirement set for 2030.

Even so, we are continuing to work intensively throughout the Group to reduce our CO₂ emissions. Back in 2016, we set new long-term targets for CO₂ and VOC emissions and for energy consumption: We aim to cut our specific CO₂ and VOC emissions by 25% by 2025 (base year 2015). At the same time, our energy efficiency is expected to improve by 25% by 2025.



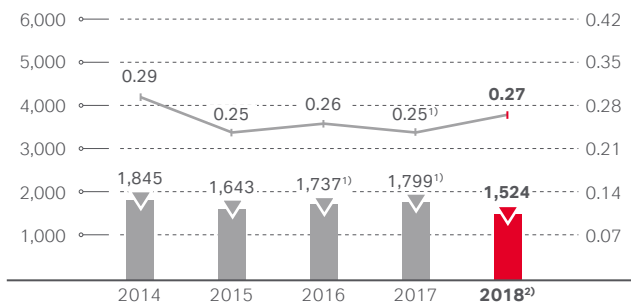
One of the measures at the moment is the new steam co-generation plant at Antwerp harbor (Belgium) that we are using in conjunction with other chemicals companies based there. Hot commissioning of the steam pipeline started in November 2018. The final tests at LANXESS took place in December. Steam is to be finally introduced to the system in January 2019. The pipeline, more than five kilometers long, helps us to reduce our energy costs and reduce CO₂ emissions by around 10,000 metric tons each year. Across all participating companies, CO₂ emissions are likely to be down by around 100,000 metric tons per year.

In Europe, 18 plants and sites (including five belonging to ARLANXEO) are subject to European emissions trading. Trading with CO₂ emissions rights, known as certificates, is intended to reduce emissions of the environmentally harmful gas CO₂ cost-effectively. Because all of our plants covered by emissions trading are state-of-the-art and compete at the international level, we expect to receive enough certificates from free allocation to cover the expected CO₂ emissions by the end of the third trading period in 2020.

Greenhouse Gas Emissions (Scope 1)

in thousand metric tons of CO₂ equivalents in CO₂ equivalents, metric tons per metric ton of product

● Scope 1 (absolute)
— Scope 1 in relation to volumes sold



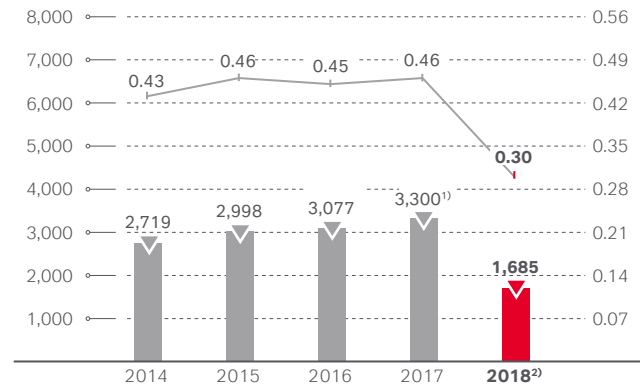
1) Figure restated
2) Continuing operations

In 2018, we reduced our absolute Scope 1 emissions. This is largely attributable to the sale of our remaining interest in ARLANXEO and the associated changes to our portfolio. This positive trend was also thanks to the reduced use of coal in China and increased use of biomass in India and Brazil. At the same time, the ARLANXEO transaction led to higher specific Scope 1 emissions because we generate and use in ongoing operations comparatively more energy from primary energy sources.

Greenhouse Gas Emissions (Scope 2)

in thousand metric tons of CO₂ equivalents in CO₂ equivalents, metric tons per metric ton of product

● Scope 2 (absolute)
— Scope 2 in relation to volumes sold



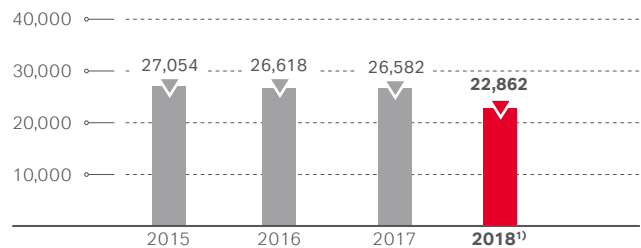
1) Figure restated
2) Continuing operations

Absolute Scope 2 emissions decreased by around a half compared with the previous year. This effect is primarily attributable to the sale of ARLANXEO. A similar trend can also be observed with specific Scope 2 emissions. Compared with the Scope 1 analysis, a reverse effect can be seen here because ARLANXEO uses a higher number of indirect energy sources.

Greenhouse Gas Emissions (Scope 3)

in thousand metric tons of CO₂ equivalents

● Scope 3 (absolute)



1) Continuing operations

The sale of ARLANXEO has also had a positive impact on our Scope 3 emissions.

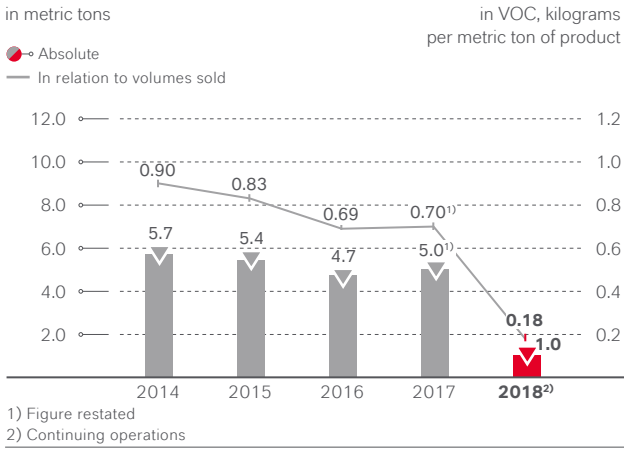




For more than a decade, we have been participating in the international climate protection initiative CDP (formerly the Carbon Disclosure Project), each year sharing data and information on climate protection and the reduction of emissions. We received an “A-” rating in the assessment for 2018, which puts LANXESS among the top 6% of almost 7,000 companies examined by the initiative in 2018. These gratifying results gave us encouragement to continue systematically pursuing our climate protection strategy.

Other atmospheric emissions

VOC Emissions



In fiscal year 2018, both absolute and specific VOC emissions fell by almost 80%. Here, too, the ARLANXEO transaction contributed significantly to this improvement.

Systematic energy management

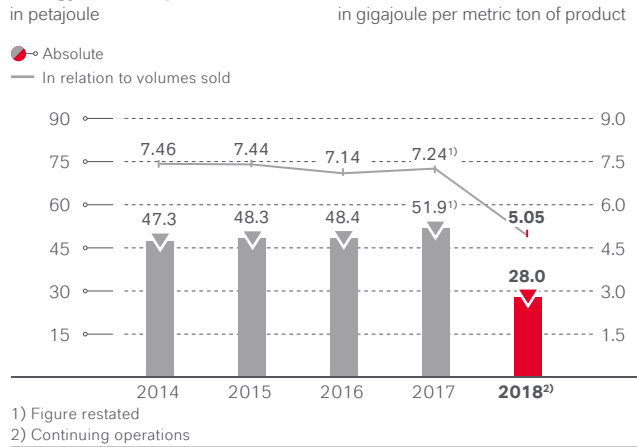
A high level of energy efficiency improves not just our emissions footprint, but also our cost position, thus ultimately making LANXESS more competitive. In Germany, we have established an energy management system in line with the ISO 50001 standard. The validity of the certificate was reconfirmed in 2018. In addition to the Zwijndrecht site, our other Belgium sites were also included in the matrix certificate under ISO 50001 in the reporting year. The Bitterfeld and Bergkamen sites in Germany each hold a local certificate. Outside Germany and Belgium, we are continuing to pursue our strategy of regional and local certifications.

With our Leverkusen, Krefeld-Uerdingen and Dormagen sites in Germany, since the end of 2017, we have been part of the Energy Efficiency Networks Initiative, established by the German federal government and leading industry associations. An Energy Efficiency Network consists of 8 to 15 companies. Once a network is up and running, an experienced energy consultant identifies opportunities to increase energy efficiency at each company. Based on this analysis, each company formulates an individual reduction target and underpins it with measures. In addition, the network as a whole sets an efficiency target for

the duration of its work. At the national level, the networks are expected to help save 75 petajoules of primary energy and reduce greenhouse-gas emissions by 5 million metric tons. With its partners, the network@CHEMPARK, in which our sites are involved, has set a target of making a contribution of 100 gigawatt hours. In the reporting year, we successfully implemented the first two projects, each of which was geared towards more efficient use of hot steam condensate. For instance, the existing steam heating of the supply air of a production building of our Saltigo business unit at the Leverkusen (Germany) site was supplemented by a heat exchanger to use the residual heat from condensed steam. Through this structural measure, we can save approx. 3,000 metric tons of steam per year in the future. In a further project at our Leverkusen site, we are using hot condensate of a network partner in order to pre-heat boiler feed water for our own steam generation. Consequently, we are saving approx. 4,000 metric tons of steam per year.

Furthermore, as an active partner, we have been involved since 2018 in the IN4climate.NRW initiative, a new working platform for industry, science and regional government, the only one of its kind in Germany to date. The aim of the initiative is to devise strategies for how industry in North Rhine-Westphalia can become highly competitive, generate additional growth and play its part in attaining the Paris climate-change targets. Specifically, the partners will work together in innovation teams to address how production processes and value chains can be made climate-neutral on a long-term basis, or what role industry might play in the development of climate-friendly products. Scientific partners will perform the requisite studies, while regional government experts work on creating innovation- and climate-friendly frameworks. Set up for an initial four years, the project is receiving €16 million in funding from the regional government.

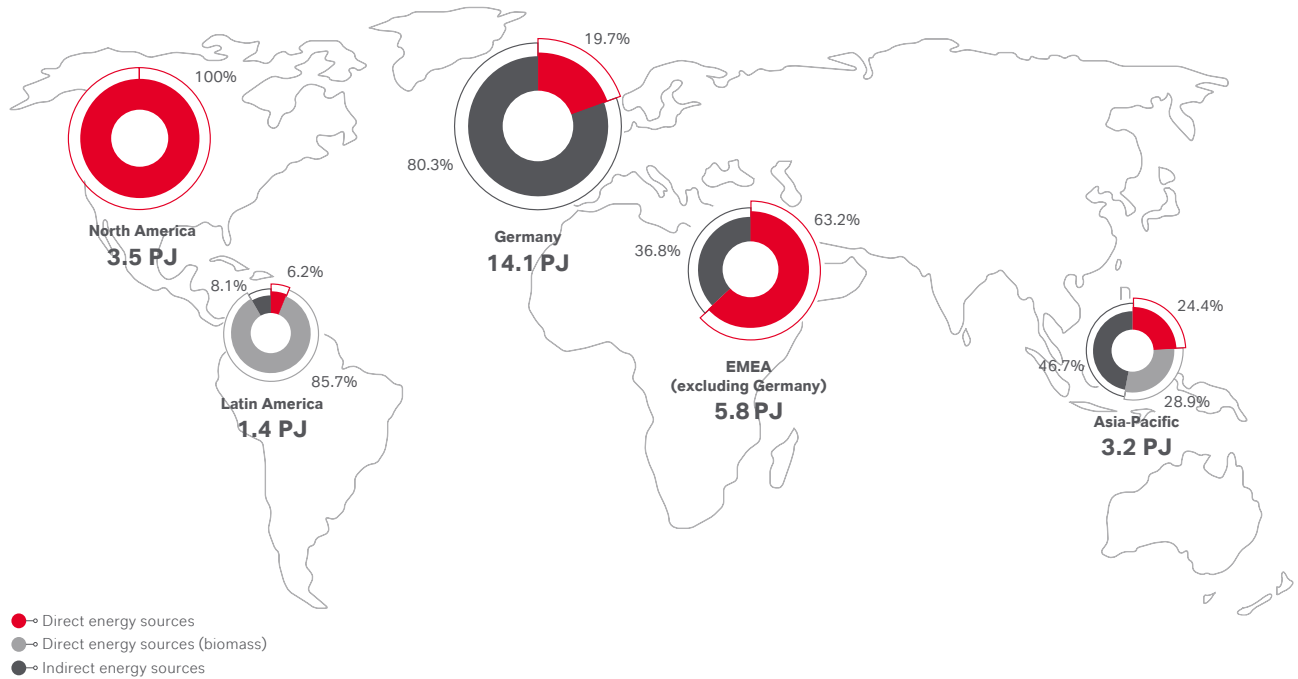
Energy Consumption (Balance Sheet)



Following the sale of our remaining interest in ARLANXEO, our absolute energy consumption in fiscal year 2018 fell significantly. In continuing operations, specific energy consumption improved significantly in the reporting year.

Direct and Indirect Energy Consumption by Region

in petajoule/%



Sustainable logistics

We select our transportation solutions individually worldwide in line with the principles of safety, punctuality and cost-efficiency. In doing so, we also take into account the CO₂ emissions resulting from transportation. In particular, we are eager to step up our use of ships. Furthermore, we are increasingly using comparatively low-emission combined-transport options, where most of the distance involved is covered by train, barge or sea vessel, thus keeping initial and final journeys by road to an absolute minimum. Europe in particular has a strong infrastructure for these types of transportation. However, increased use of rail means that combined transport is even an option for long-distance connections to China.

To transport our rail freight in Germany, we continue to use the TÜV SÜD-tested Eco-Plus service of the logistics company DB Cargo. The power required for transportation is obtained from regenerative energy sources. As a result, we can reduce our CO₂ emissions in national rail transportation by almost 75% compared with conventional options.



SUSTAINABLE PRODUCT PORTFOLIO

In signing the Responsible Care® Global Charter, LANXESS committed itself to comprehensive product responsibility. This initiative launched by the International Council of Chemical Associations (ICCA) made a significant contribution to the development of the “Global Product Strategy” (GPS). It aims to provide basic information and risk assessments of materials in order to minimize harmful effects of chemicals on human health and the environment and to manufacture and distribute products in a way avoids harm to people and the environment. In line with the above obligations, our product responsibility covers the safe handling of chemical materials and products throughout their lifecycle – from research and development, procurement and production, storage and transportation through to marketing, further processing and disposal.

The “Guideline on Product Safety Management at LANXESS” stipulates how product responsibility is to be exercised throughout the Group and ensures collaboration between all of the parties involved. This particularly applies to substances in our product portfolio that are classified as hazardous. With the “Central Product Monitoring” guideline, we systematically manage the global monitoring of our products and their application with regard to possible health and environmental effects. Our product developers and product safety experts incorporate the experience gathered into their assessments. Our guideline “Development of New or Changed Products, Processes and Applications” stipulates that development ideas already have to be examined systematically with regard to their potential economic, environmental and social impact. In this way, we ensure that unsustainable products, processes or applications no longer occur in our development process.

Particularly in the case of consumer applications – for example, use as an additive in food or animal feed, in contact with drinking water or food, or in cosmetic, pharmaceutical, or medical products – it is extremely important to us that our products meet high national and international standards, certificates, and quality seals. We thereby actively support our customers with the authorization of materials to be used in contact with drinking water, for example, or with further processing of our products into certified goods for end consumers. By intensively exchanging information with our customers and suppliers, we achieve greater transparency and safety throughout the whole product lifecycle.

Management of chemicals control regulations

Complying with global chemicals control regulations is an essential prerequisite for the saleability and safe handling of our chemicals and products across the whole value chain.

LANXESS ensures the implementation of binding and voluntary requirements using an electronic safety data system. Safety data sheets in more than 40 languages provide our customers worldwide with data on the materials and inform them of the protective measures required when handling the respective chemicals. We regularly adapt our electronic safety data system to take account of new features in the GHS (Globally Harmonized System of Classification and Labeling of Chemicals) in the different countries. The GHS is a system under the auspices of the United Nations that aims to globally harmonize existing classification and labeling systems from different sectors such as transportation, consumer protection, employee protection, and environmental protection. We take account of regional aspects in the implementation of the GHS, such as the CLP Regulation (Regulation on Classification, Labeling and Packaging of Substances and Mixtures) in Europe.

We explicitly support the goal of the EU chemicals regulation REACH: to ensure a high level of protection for human health and the environment. We have so far pre-registered or registered all relevant materials for LANXESS with the central European Chemicals Agency (ECHA) on schedule. As of the end of the third registration phase on May 31, 2018, around 1,000 materials that we produce in or import to Europe in quantities of more than one metric ton per year had been registered in line with the REACH process. We systematically evaluate all necessary information on our materials and their uses for the registration. In doing so, we consider the whole product lifecycle and determine safe conditions for use. In the context of the German chemical industry’s voluntary commitment to recording and assessing materials (voluntary commitment of the German chemical industry association VCI, 1997), we always determine an informative basic data set based on the REACH Regulation that goes beyond the legal requirements, including for our intermediate products.

Similar chemicals control regulations to those in the EU now also exist in many other countries, and the number of them is still increasing. Before manufacturing or exporting our products, we therefore check their saleability under the applicable chemicals laws in the countries concerned. We register our materials and products in accordance with local requirements. We support the responsible authorities’ material assessment programs by supplying all available information and determining new data where necessary. Here we benefit from our experience from the REACH process. We are currently dealing with increasing requirements particularly in the Republic of Korea, Taiwan, Turkey and the U.S.

Comprehensive analysis of our product portfolio from a sustainability perspective

In order to take effective sustainable action, we need to know the effects of our business activities – both positive and negative – as precisely as possible. With a specially developed assessment system, we have established a strategic management tool that enables us to systematically assess and improve the sustainability performance of our product portfolio with regard to economic, environmental and social aspects. The system analyzes the effects and benefits of our products based on criteria that we consider relevant for our company and for society as a whole.

Criteria for Our Product Portfolio Analysis

Impact on society	Support for development goals Societal acceptance Safety in end use
Ecological impact	Raw material efficiency in production Energy efficiency in production Emissions and waste balance sheet in production Water risks Impact on the environment during use
Economic impact	Registration, evaluation and approval Profitability Demand trend

Based on this list of criteria, we carry out an annual assessment of our entire product portfolio – followed by a review by an internal panel of experts – as part of our strategy process. This process has revealed which of our products satisfy the sustainability requirements we have defined and can help us to deliver solutions for key sustainability challenges.

Evaluation Processes



Throughout the LANXESS Group, we work intensively with the results of this assessment in order to further improve the sustainability performance of our product portfolio. The increased understanding of our products' capabilities can also provide important impetus for innovation. In addition, it also makes it clear which areas still show a need for action – which can lead to specific improvement processes, but can also be aimed at creating acceptance for a certain topic in stakeholder dialog. The following example shows how we derive specific measures from our analysis:

- › With a product line of high-purity polyurethane prepolymers, known as low-free products, our Urethane Systems business unit has once again demonstrated its global technology leadership. Using the new products with very low residual monomer content reduces workers' exposure to potentially carcinogenic materials.



BUSINESS-DRIVEN INNOVATION

By developing innovative processes and products, LANXESS makes a significant contribution to increasing the company's competitiveness. At the same time, we help our customers make their business more sustainable. We often advance product- and application-oriented innovations in cooperation with our customers and suppliers.

In the year under review, our Leather business unit reached an important milestone with regard to its innovative technology for recycling waste products in leather production: The pilot facility in use at the tannery Heller-Leder GmbH & Co. KG in Lower Saxony successfully completed its test operation. It uses chromium-free shavings, trimming waste, and vegetable biomass to produce retanning agents with the brand name "X-Biomer." In the next step, the technology – which won the German Innovation Award for Climate and Environment in 2018 – is to start series production. The Leather business unit is currently planning the construction of the first three production facilities.

We also continuously develop our products in the field of high-tech plastics with regard to the requirements of a sustainable world. For example, this is the case for the continuous fiber-reinforced thermoplastic composites with the brand name Tepex. These are becoming increasingly important in lightweight construction of vehicles and can thus be found in a growing number of series applications – for example, in front-end and bumper supports, brake pedals, load-through systems, and tank reinforcements. The High Performance Materials business unit is currently developing electromagnetically shielding versions of the composite specifically for components in electrified vehicle drive systems. In this way, we can contribute to further increasing the performance efficiency – and thus ultimately the market appeal – of electric mobility.

High-quality lubricants can also make a significant contribution to more climate-friendly mobility. Such lubricants require additives that firstly reduce friction and secondly protect against wear. With Additin® RC3502, our Additives business unit has developed a new product to the stage of marketability which combines these properties and thereby significantly improves its application at the customer. Additin® RC3502 is stable, non-corrosive and free of mineral additives. Thanks to these properties, it makes engines more efficient and long-lasting, as well as reducing the amount of fuel required.

It is not just in our products that we implement targeted developments, but also in our research and development infrastructure. For example, in the third quarter of 2018 we started operations at a new laboratory for application development and technical services in the field of polyurethane dispersions (PUD) in Latina, Italy. This forms part of our existing development center in the Urethane Systems business unit. Sustainability is the driving factor in this case, too, as growing regulatory pressure on the use of chemicals is encouraging applied research into water-based technologies. Therefore, the establishment of an application technology center for this purpose is entirely consistent with our commitment to environmentally friendly technologies.

We also generate impetus for innovation by means of cooperations with universities. In the year under review, Urethane Systems extended and expanded its cooperation with the Center for UMass/Industry Research on Polymers (CUMIRP) at the University of Massachusetts Amherst in the U.S. Since October 2018, the business unit has also been involved in Cluster M, which focuses on research into the mechanics and manufacturing of polymers and composites. The cluster's research areas include innovations in the field of additive manufacturing technologies and next-generation 3D printing formulations. As part of this cooperation, we are introduced to the latest technological developments in the field of 3D printing and additive manufacturing, gain access to unique test equipment, and become part of a powerful industrial network in this area.

In the previous year, we had already gained promising access to the German start-up scene with a financial investment in the "High-Tech Gründerfonds (HTGF) III." This fund pursues the goal of supporting promising start-ups in the technology sector in order to bring inventions to the stage where they are ready for the market. The fund covers a wide variety of topics: robotics, the Internet of Things (IoT), energy, medical and biotechnology, chemistry and software. This investment will help us gain access to new technologies and identify partners for cooperations.

Further information on the topic of research and development can be found in the Combined Management Report on [page 66](#) of this Annual Report.



VALUING CUSTOMER RELATIONSHIPS

Customer satisfaction and customer loyalty are among our most important measures of success. Via a central inquiry management system, customers can obtain information on our products, their applications and potential risks, and product certificates. Critical feedback from customers gives us valuable information on how we can further improve our products and processes. Based on a central CRM system and a uniform complaint management platform, each of our business units has its own market- and customer-oriented complaint management processes. Shared elements of these processes include clear targets, for example in relation to processing times for customer complaints, a corresponding statistical analysis of the complaints received, and structured monthly reporting to the management of the respective business unit.

In the year under review, the majority of the customer complaints that were classified as justified following a review were attributable to logistics and particularly to the packaging of our products. In such cases, we always aim to find a sustainable solution to the problem that occurred together with our customer and the responsible logistics partner. For example, in 2018 we countered corrosion of p-chloride vats in the Additives business unit by using a different type of seal. Meanwhile, the Leather business unit successfully introduced a system for securing pallets in containers in line with customers' needs. This directly resulted in faster and safer unloading and a considerably lower number of complaints.

Regular customer surveys conducted by an external service provider bring us important findings about our customers' loyalty, their expectations, and their perception of our services in comparison to competitors. Each business unit conducts an anonymous online survey once every two years. In the 2017/2018 survey, the customer loyalty index score was 75.1, on a par with the previous year. Based on the results of the customer satisfaction analysis, we will continue to implement targeted measures in the business units in order to at least maintain this very good level of customer satisfaction and keep successfully retaining our customers.



LANXESS

ON THE CAPITAL MARKET

LANXESS on the Capital Market

On January 23, 2018, the LANXESS stock reached a new all-time high of €74.78. At the end of the reporting period, however, the share followed the downward trend on the overall market and marked a significant decline on an annual basis. The sale of the 50% share in ARLANXEO, the joint venture for rubber business, was evaluated positively on the capital market. Due to the improved risk profile, the rating agencies S&P, Moody's and Scope upgraded their credit ratings for LANXESS.

2018 was a challenging year for the German stock market. The DAX ended the year down 18.3% at 10,559 points on December 28. The MDAX, in which the LANXESS stock is listed, showed a comparable development. It ended the stock market year 2018 at 21,588 points, corresponding to a year-on-year decrease of 17.6%. The international, sector-specific benchmark index for LANXESS, the MSCI World Chemicals Index, also suffered losses and ended the year at a closing price of 294 points, down 13.9% as against the previous year.

Our stock reached an all-time high of €74.78 shortly after the beginning of the year on January 23, 2018. In the first half of 2018, the performance of our stock largely followed the fluctuations of the market. Over the rest of the year, the stock price initially marked a stable sideways movement between €60 and €70 before falling significantly in the fourth quarter in step with the overall market and the chemical sector. The LANXESS stock ended the stock market year 2018 at €40.20. Despite a positive or stable performance over large parts of the reporting period, this represents a decrease of 39.4% for the year as a whole.

LANXESS Stock at a Glance

		2015	2016	2017	2018
Capital stock/no. of shares ¹⁾	€/no. of shares	91,522,936	91,522,936	91,522,936	91,522,936
Market capitalization ¹⁾	€ billion	3.91	5.71	6.07	3.68
High/low (intraday) for the period ¹⁾	€	56.50/33.53	63.53/32.90	70.67/59.89	74.78/39.61
Closing price	€	42.68	62.35	66.29	40.20
Earnings per share adjusted for exceptional items and amortization of intangible assets ²⁾	€	2.03	2.69	3.84	4.45
Dividend per share	€	0.60	0.70	0.80	0.90³⁾

1) As of end of year: December 31, 2015; December 31, 2016; December 31, 2017; December 31, 2018

2) Earnings per share pre exceptionals and amortization of intangible assets: earnings per share disregarding exceptional charges and income, amortization of intangible assets and attributable tax effects as well as non-recurring earnings effects of the U.S. tax reform in 2017. The figures shown for 2017 and 2018 relate to continuing operations.

3) Dividend proposal to the Annual Stockholders' Meeting on May 23, 2019

Capital Market Information

Class	No-par shares
ISIN	DE0005470405
WKN (German securities identification number)	547040
Selective indices	MDAX, Dow Jones STOXX 600 Chemicals SM , MSCI Germany Standard, MSCI Germany Mid Cap, Dow Jones Sustainability Index World and Europe, FTSE4Good
Investment grade ratings	Standard & Poor's: BBB (stable) Moody's: Baa2 (stable) Scope: BBB+ (stable)

DIVIDEND POLICY

LANXESS has been pursuing a consistent dividend policy for years. Our goal remains to increase the dividend each year or at least to keep it at a stable level. At the Annual Stockholders' Meeting in Cologne on May 23, 2019, the Board of Management and the Supervisory Board will propose a dividend of €0.90 per share.

STOCKHOLDER STRUCTURE

LANXESS's stockholder structure predominantly consists of institutional investors pursuing a growth- or value-oriented investment strategy. As of the end of 2018, the percentage of such investors in the stockholder structure was still around 92% (previous year: 92%). The remaining roughly 8% of LANXESS stocks are held by private investors.

In 2018, as in the past, the regional focus of our institutional investors in 2018 was in the U.S., Germany and Great Britain. The percentage of U.S. stockholders most recently increased slightly to around 41% (previous year: 39%). As of the reporting date, an unchanged percentage of around 22% (previous year: 22%) of LANXESS stocks were held in Germany, while the holdings of institutional investors from Great Britain decreased slightly to around 12% (previous year: 16%).

The share of institutional investors from elsewhere in Europe was unchanged year-on-year at around 13% (previous year: 13%). By contrast, the share of institutional investors from other regions rose slightly to around 12% (previous year: 11%). An overview of

the institutional investors that are required to report a holding of at least 3% of the outstanding LANXESS stocks to us can be found in the [investor relations section of our website](#).

BONDS

In the fiscal year 2018, we successfully placed a Eurobond in an increasingly restrictive market environment. The €500 million bond has a term of seven years and an annual interest coupon of 1.125%. We used this issue to refinance a Eurobond issued in 2011 that we repaid at the end of its seven-year term in May 2018. This bond has a volume of €500 million and an annual interest coupon of 4.125%.

At present, there are thus four LANXESS bonds and one hybrid bond on the market.

All existing LANXESS Eurobonds are listed on the Luxembourg Stock Exchange. Their respective terms and conditions can be viewed in the [investor relations section of our website](#).

Overview of LANXESS's Main Bonds

ISIN/WKN	Volume	Duration	Coupon
XS1501363425	€500 million	October 7, 2016–October 7, 2021	0.250%
XS0855167523	€500 million	November 21, 2012–November 21, 2022	2.625%
XS1820748538	€500 million	May 16, 2018–May 16, 2025	1.125%
XS1501367921	€500 million	October, 7 2016–October, 7 2026	1.000%

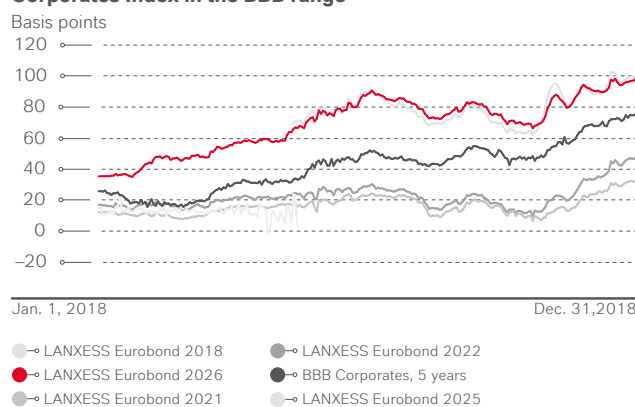
LANXESS Hybrid Bond (Subordinated)¹⁾

ISIN/WKN	Volume	Duration
XS1405763019	€500 million	December 6, 2016–December 6, 2076
Coupon	Redemption options	
4.500% until the first redemption option; subsequent adjustment of interest rate as described in prospectus	First option on June 6, 2023, and thereafter annually; additional redemption rights in defined special circumstances	

1) Simplified description; see prospectus for full conditions of the bond and the associated risks

In addition to the absolute price performance, another important parameter for corporate bonds is the relative measurement of the company-specific credit risk in comparison to a reference interest rate. This credit risk premium is reflected in the credit spread.

LANXESS Eurobond Spreads vs. Corporates Index in the BBB range¹⁾



1) The LANXESS hybrid bond that matures in 2076 is not included in the overview

The development of the LANXESS credit spreads shows investors' increased risk aversion in a second half of 2018 that was characterized by economic and political uncertainty. Nonetheless, the credit spread for the LANXESS bonds highlights our still very competitive access to capital market finance.

RATINGS

Our strategic corporate goal is to maintain an investment-grade rating. LANXESS's creditworthiness has been assessed by the rating agencies Standard & Poor's and Moody's Investors Service for many years already. In 2018, LANXESS was also assessed by a European rating agency, Scope Ratings, for the first time.

Following the announcement of the complete sale of our joint venture in the rubber business, ARLANXEO, as of December 31, 2018, all three rating agencies upgraded LANXESS's credit rating in August 2018 already. Standard & Poor's moved its rating up from "BBB–" to "BBB" due to LANXESS's reduced cyclical and improved risk profile, and kept the outlook at stable. Moody's Investor Service emphasized the increased financial flexibility associated with the ARLANXEO transaction and upgraded its rating from "Baa3" to "Baa2" with an unchanged stable outlook. Scope Ratings praised LANXESS's strengthened financial profile and conservative financial policy and improved its rating from "BBB" to "BBB+," with the outlook remaining stable. This reflects the rating agencies' confidence in the successful implementation of the strategy by the LANXESS management. An overview of the development of LANXESS's ratings and their outlooks since 2014 can be found on [page 82](#) of this Annual Report.

Detailed information, downloadable publications, and contacts are always available in the [investor relations section of the LANXESS website](#).

CORPORATE GOVERNANCE

Corporate Governance Report

The Board of Management and Supervisory Board of LANXESS are committed to the principles of transparent and responsible corporate governance and control. They place high value on the standards of good corporate governance, with a view to strengthening the trust of investors, customers, employees and the public in LANXESS.

The Board of Management and Supervisory Board herein report on corporate governance at LANXESS pursuant to Section 3.10 of the German Corporate Governance Code. Further information about corporate governance can be found in the Board of Management's declaration on corporate governance pursuant to Sections 289f and 315d of the German Commercial Code. This is published in conjunction with the Corporate Governance Report on the [LANXESS website under Investor Relations/Corporate Governance](#).

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IMPLEMENTATION OF THE GERMAN CORPORATE GOVERNANCE CODE

As LANXESS is a stock corporation listed on the German stock exchange, corporate governance at the company is aligned with Germany's securities and capital market legislation, regulations pertaining to codetermination and the German Corporate Governance Code. The latter makes recommendations and suggestions concerning corporate governance. There is no obligation to comply with this code. Pursuant to Section 161 of the German Stock Corporation Act, the Board of Management and Supervisory Board of LANXESS make an annual declaration of compliance, in the past and going forward, with the recommendations and suggestions of the German Corporate Governance Code. The current declaration of compliance of March 13, 2019, and the previous declarations are published on the [LANXESS website under Investor Relations/Corporate Governance](#). Reasons were given for non-compliance with one of the recommendations of the German Corporate Governance Code valid when the current declaration of compliance was issued. In addition, two suggestions were not fully implemented.

CORPORATE CONSTITUTION

LANXESS AG is a stock corporation established under the laws of Germany. One of the fundamental principles of German stock corporation law is the two-tier management system with the governing bodies of management board and supervisory board. This system is characterized by a clear separation between the management board as the body that manages a company and the supervisory board as the body that advises and oversees management. Concurrent membership on both boards is strictly prohibited. The management board and the supervisory board work closely together in a relationship of mutual trust for the benefit of the company.

Board of Management

The Board of Management of LANXESS AG has four members. Information about the members of the Board of Management is available on the [LANXESS website under Investor Relations/Corporate Governance/Board of Management](#).

The Board of Management is appointed to manage and represent the company. It is responsible for conducting business in the company's interests with the goal of creating sustainable value. The principal tasks of the Board of Management include defining the company's goals and strategic alignment, managing and overseeing the operating units, setting human resources policy, arranging the company's financing, and establishing an effective risk management system. The Board of Management has a duty to ensure compliance with legislation, regulatory requirements and the company's internal directives. It is also responsible for preparing the quarterly and half-year financial statements, the financial statements of LANXESS AG, the consolidated financial statements of the LANXESS Group and the management report for LANXESS AG and the LANXESS Group.

The Chairman coordinates the work of the Board of Management. As a rule, Board of Management decisions are adopted with a simple majority. In the event of a tie, the Chairman has the casting vote. Resolutions of the Board of Management are generally passed at regularly held meetings. The rules of procedure for the Board of Management that are enacted by the Supervisory Board contain further regulations concerning the form of cooperation within the Board of Management, the allocation of duties and the matters requiring resolution by the full Board of Management. The Board

of Management has not formed any committees. In deciding the composition of the Board of Management, the Supervisory Board gives consideration to professional suitability, leadership qualities and diversity in line with its regulations. It has defined an age limit for members of the Board of Management.

By way of implementing the law on the equal representation of women and men in management positions in the private and public sectors, which came into force on May 1, 2015, the Supervisory Board has set a new target for the proportion of women on the Board of Management of LANXESS AG for the period starting after June 30, 2017. Accordingly, at least one woman should be appointed to the Board of Management by June 30, 2022.

Supervisory Board

The Supervisory Board of LANXESS AG is composed of twelve members, with equal numbers of stockholder representatives and employee representatives, in accordance with the provisions of the German Codetermination Act of 1976. The stockholder representatives are elected by the Annual Stockholders Meeting, whereas the employee representatives are elected in accordance with the provisions of the Codetermination Act and its electoral regulations. Supervisory Board members normally serve for a five-year term.

Information about the members of the Supervisory Board is available on the [LANXESS website under Investor Relations/Corporate Governance/Supervisory Board](#).

The Supervisory Board's role is to advise the Board of Management in its management of the company and to monitor its conduct of the business. The Supervisory Board discusses the company's business performance and the Board of Management's planning and strategy at regular intervals. Its responsibilities also include appointing the members of the Board of Management as well as reviewing the financial statements of LANXESS AG and the consolidated financial statements of the LANXESS Group. Moreover, it resolves on the Board of Management's proposal for the appropriation of the distributable profit and reports to the Annual Stockholders' Meeting. The Supervisory Board reaches its decisions with a majority of the votes cast unless a different majority is stipulated by law. In the event of a tie, the Chairman of the Supervisory Board has two votes in a second ballot on the resolution, even if this also results in a tie. The German Codetermination Act contains special requirements concerning resolutions. The Chairman of the Supervisory Board coordinates the work in the Supervisory Board, chairs its meetings and represents the concerns of the body externally. Supervisory Board resolutions are usually adopted at regularly held meetings. An overview of the attendance of Supervisory Board members at meetings of the Supervisory Board and its committees in fiscal year 2018 can be found on the [LANXESS website under Investor Relations/Corporate Governance/Supervisory Board](#).

The Supervisory Board has issued its own rules of procedure, which, in addition to defining the tasks and responsibilities of the Supervisory Board and the personal qualifications of its members, establishes the processes for convening, preparing and chairing meetings as well as the procedures for voting.

The Report of the Supervisory Board details the Supervisory Board's work.

Goals for composition and skills profile of the Supervisory Board

According to Paragraph 5.4.1 of the German Corporate Governance Code, the Supervisory Board should state specific goals for its composition and devise a skills profile for the entire body. The state of achievement of the goals and completion of the skills profile should be published in the Corporate Governance Report. At the same time, the Corporate Governance Report should provide information about what the Supervisory Board regards as the appropriate number of independent Supervisory Board members representing stockholders.

Goals for composition, skills profile

The members of the Supervisory Board of LANXESS AG are expected to possess the necessary expertise, skills and professional experience to perform their duties. They autonomously undertake the necessary training required for their tasks and are supported in their efforts by the company. In addition to the requirements applicable to each individual member of the Supervisory Board such as integrity, commitment, professionalism and independence, the entire Supervisory Board should be composed in such a way to ensure that the Board of Management receives qualified supervision by and advice from the Supervisory Board. The Supervisory Board of LANXESS AG has devised a skills profile which stipulates that in-depth specialist knowledge and experience in the following fields are represented; the chemical industry, particularly international industrial chemistry, management of major international companies, corporate governance/compliance, corporate strategies, large-scale investments/M&A, production, marketing and sale of chemical products, key sales markets of LANXESS, research and development, procurement of raw materials, energy and services, HR management/codetermination, capital markets/investor relations, corporate financing, accounting and auditing, risk management and IT/digitalization should be represented. In its current composition, the Supervisory Board fulfills these goals and completes the skills profile. The members of the Supervisory Board possess the professional and personal qualifications regarded as essential. They are all familiar with the sector in which LANXESS operates and possess the knowledge, skills and experience that are crucial to the company. In its proposals to the Annual Stockholders' Meeting for filling vacant positions on the Supervisory Board, the Supervisory Board takes account of the targets for the composition of the Supervisory Board and, at the same time, endeavors to complete the skills profile for the entire body.

Independence

The Supervisory Board of LANXESS AG should ensure the provision of impartial advice and supervision to the Board of Management. All current Supervisory Board members are independent in the sense of Paragraph 5.4.2 of the German Corporate Governance Code. In its assessment of employee representatives, the Supervisory Board also assumes that their ability to act independently is not affected by their status as employees of the company or members of labor unions. No member of the Supervisory Board has a personal or business relationship with the company, its executive bodies, a controlling shareholder or any enterprise affiliated with a controlling shareholder that may cause a material and not merely temporary conflict of interest. No former member of the Board of Management of LANXESS AG is a member of the Supervisory Board. The Supervisory Board also aims for all future members of the Supervisory Board to be independent and free of conflicts of interest.

Age limit and length of membership

The Supervisory Board has defined an age limit for its members, which is contained in the rules of procedure for the Supervisory Board. Supervisory Board members shall not continue to serve after the end of the Stockholders' Meeting following their 80th birthday. This also takes into account the maximum length of membership of the Supervisory Board of generally not more than three full terms of office (15 years) that has been specified by the Supervisory Board.

Diversity

In general, the Supervisory Board should be guided by the principles of diversity in its composition. LANXESS is a global company with a correspondingly wide range of customers and suppliers. LANXESS employees come from many different countries. This is why membership of the LANXESS Supervisory must also be international. By international, we do not mean merely in the sense of a specific nationality. A different cultural background (ethnicity) also plays a role here. Cross-cultural characteristics and experiences, which can also be acquired through education or professional activity, are crucial. The Supervisory Board membership must therefore be characterized by an openness to other cultures and an understanding of international issues and relations. On the basis of their various personal and professional backgrounds, the members of the Supervisory Board contribute a broad spectrum of experience and skills. The global reach of LANXESS AG and the different cultural characteristics of Supervisory Board members have been reflected in the composition of the Supervisory Board thus far and will remain a factor in selecting candidates to be proposed to the Annual Stockholders' Meeting for election to the Supervisory Board. In many cases, the experience and skills of the members of the Supervisory Board have been acquired while working abroad for a long period or in an international field. The company's Supervisory Board contains members from three different countries (Germany, Netherlands, U.S.).

Diversity applies equally to gender. In accordance with the law on the equal representation of women and men in management positions in the private and public sectors, codetermined stock corporations like LANXESS AG are required to appoint at least 30% women and 30% men when filling Supervisory Board positions that become vacant from January 1, 2016. Existing appointments – including those of substitute members – can run until they end regularly. Four of the twelve members currently serving on the LANXESS AG Supervisory Board are women, which represents a proportion of over 30%. The company therefore complies with the legal requirements for gender diversity and will also take these into account when filling positions on the Supervisory Board in future.

Composition and work of the Supervisory Board committees

The Supervisory Board has a Presidial Committee, an Audit Committee, a Committee pursuant to Section 27, Paragraph 3 of the German Codetermination Act and a Nominations Committee formed from among its members. The composition of the Supervisory Board committees is shown on the LANXESS website under Investor Relations/Corporate Governance/Supervisory Board/Work of the Supervisory Board.

The Presidial Committee discusses key issues and prepares the meetings and resolutions of the Supervisory Board. In addition, it makes decisions on transactions requiring approval that are already included in the company's annual planning. The Presidial Committee may also resolve on the exercise of participation rights pursuant to Section 32 of the German Codetermination Act and on transactions requiring approval that cannot be deferred instead of the Supervisory Board. It consults regularly about long-term succession planning for the Board of Management. Furthermore, the Committee also prepares the personnel decisions to be made by the Supervisory Board.

The Audit Committee supports the Supervisory Board in overseeing the conduct of the business and deals with matters relating to the supervision of accounting, the accounting process, effectiveness of the internal control system, the risk management system and the internal auditing system, as well as auditing, including the independence of the auditor and the work additionally performed by the auditor, and compliance. It prepares the Supervisory Board's resolutions concerning the annual financial statements of LANXESS AG and the consolidated financial statements of the LANXESS Group and recommends an auditor who the Supervisory Board then proposes to the Annual Stockholders' Meeting for appointment. Dr. Janssen, the Chairman of the Audit Committee, is an independent financial expert and has specialist knowledge and experience in the field of accounting acquired through his professional activities.

The Committee pursuant to Section 27, Paragraph 3 of the German Codetermination Act performs the tasks described in Section 31, Paragraph 3 of the German Codetermination Act.

The Nominations Committee comprises solely stockholder representatives and proposes candidates for the Supervisory Board to nominate for election as new members of the Supervisory Board by the Annual Stockholders' Meeting.

The respective committee chairmen report regularly to the Supervisory Board on the work of the committees.

STOCKHOLDERS AND STOCKHOLDERS' MEETINGS

The stockholders of LANXESS AG exercise their rights at the Annual Stockholders' Meeting, where they can vote on the resolutions submitted. The Annual Stockholders' Meeting resolves on all matters reserved for its decision by law, with binding effect on the stockholders and the company. Each share confers one vote.

The items resolved on by the Annual Stockholders' Meeting include appropriation of the distributable profit, ratification of the actions taken by the members of the Board of Management and the Supervisory Board, appointment of the auditors and election of the stockholder representatives to the Supervisory Board. The Annual Stockholders' Meeting also resolves on amendments to the articles of association, measures affecting the company's capital and the approval of intercompany agreements. Each year there is an Annual Stockholders' Meeting at which the Board of Management and Supervisory Board give an account of the last fiscal year. The German Stock Corporation Act requires the convening of an Extraordinary Stockholders' Meeting in certain situations.

All stockholders who register in time and prove their eligibility to attend the Annual Stockholders' Meeting and exercise their voting rights shall be allowed to participate in the Annual Stockholders' Meeting. Stockholders may exercise their voting rights at the Annual Stockholders' Meeting in person, through a proxy of their own choosing or through a company-nominated proxy who acts according to their instructions.

COMPENSATION REPORT

The compensation report, which describes the compensation system and the amount of compensation paid to the members of the Board of Management and Supervisory Board for their service in fiscal year 2018, is part of the Combined Management Report for LANXESS AG and the LANXESS Group.

REPORTABLE SECURITIES TRANSACTIONS

Members of the Board of Management and Supervisory Board and persons closely related to them are required to disclose transactions in shares or debt securities of LANXESS AG or associated financial instruments if the total volume of such transactions in any given calendar year equals or exceeds €5,000. Reportable securities transactions are published on the [LANXESS website](#).

The total number of shares of LANXESS AG held by members of the Board of Management and Supervisory Board as of December 31, 2018, was less than 1% of all shares issued by the company.

RISK MANAGEMENT AND COMPLIANCE

Key characteristics of the risk management system and internal control system as well as information on compliance can be found in the Combined Management Report for LANXESS AG and the LANXESS Group.

ACCOUNTING AND AUDITING

LANXESS AG prepares its consolidated financial statements and interim financial statements in line with the International Financial Reporting Standards (IFRS), as applicable in the European Union. The annual financial statements of LANXESS AG are prepared in accordance with the provisions of the German Commercial Code. After being adopted and approved by the Supervisory Board, the annual financial statements and consolidated financial statements of LANXESS AG as well as the combined management report are published within 90 days after the end of the fiscal year. The company's accounting for fiscal year 2018 was audited by the auditor PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft ("PwC"), elected by 2018 Annual Stockholders' Meeting. The condensed financial statements and interim management report included in the 2018 half-year financial report was also reviewed by PwC. PwC was appointed following an external tender procedure, which last took place in 2016. Mr. Jörg Sechser has been the responsible auditor since 2017. The audits are conducted in line with German auditing regulations and in compliance with the German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (IDW). The statutory requirements and rotation obligations in Sections 319 and 319a of the German Commercial Code are fulfilled. The auditor has agreed to immediately inform the Supervisory Board of any possible reasons for disqualification or conflicts that may arise, as well as any material findings or events in the course of the audit.

OFFICES HELD BY BOARD OF MANAGEMENT MEMBERS

Offices held by serving Board of Management members (as of December 31, 2018)

Member of the Board of Management	External offices	Offices within the LANXESS Group
Matthias Zachert Chairman of the Board of Management	<ul style="list-style-type: none"> Member of the Supervisory Board of Siemens AG (joined on January 31, 2018) 	<ul style="list-style-type: none"> Chairman of the Executive Board of LANXESS Deutschland GmbH Chairman of the Shareholders' Committee of ARLANXEO Holding B.V. (until December 31, 2018)
Dr. Hubert Fink Member of the Board of Management		<ul style="list-style-type: none"> Member of the Executive Board of LANXESS Deutschland GmbH Chairman of the Supervisory Board of Saltigo GmbH
Michael Pontzen Chief Financial Officer		<ul style="list-style-type: none"> Member of the Executive Board of LANXESS Deutschland GmbH Member of the Board of Directors of LANXESS Corp. Member of the Shareholders' Committee of ARLANXEO Holding B.V. (until December 31, 2018) Member of the Board of Directors of LANXESS Solutions Korea Inc. Member of the Board of Directors of LANXESS Solutions US Inc.
Dr. Rainier van Roessel Member of the Board of Management and Labor Relations Director	<ul style="list-style-type: none"> Member of the Supervisory Board of CURRENTA Geschäftsführungs-GmbH, Leverkusen 	<ul style="list-style-type: none"> Member of the Executive Board of LANXESS Deutschland GmbH Chairman of the Board of Directors of LANXESS S.A. de C.V. Executive member of the Board of Administration of LANXESS N.V. Chairman of the Board of Directors of LANXESS Hong Kong Ltd. Chairman of the Board of Directors of LANXESS Corp. Chairman of the Board of Directors of LANXESS Chemical (China) Co. Ltd. Chairman of the Board of Directors of LANXESS India Private Ltd. Chairman of the Board of Directors of LANXESS K.K. Chairman of the Board of Directors of LANXESS Pte. Ltd. Member of the Board of Directors of LANXESS Thai Co., Ltd. Member of the Board of Directors of LANXESS Solutions Japan K.K. Member of the Board of Directors of LANXESS Solutions Korea Inc. Member of the Board of Directors of LANXESS Solutions US Inc.

SUPERVISORY BOARD OF LANXESS AG

Serving members

Dr. Matthias L. Wolfruber (Chairman since May 15, 2018)

- Self-employed consultant
- Former Chairman of the Management Board of ALTANA AG

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾ (Chairman since May 15, 2018)
- ALTANA AG, Wesel¹⁾
- Grillo Werke AG, Duisburg¹⁾
- ARDEX GmbH, Witten (Chairman of the Advisory Board)
- Cabot Corporation, Boston, Massachusetts (U.S.)

Birgit Bierther

- Chairwoman of the LANXESS Works Council at the Cologne site

Further offices:

- None

Werner Czaplik

- Chairman of the LANXESS Central Works Council and of the LANXESS Group Works Council
- Member of the LANXESS Works Council at the Leverkusen site

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾

Dr. Hans-Dieter Gerriets

- Chairman of the LANXESS Group Managerial Employees' Committee and Chairman of the LANXESS Managerial Employees' Committee; manager of a production facility in the Advanced Industrial Intermediates business unit of LANXESS Deutschland GmbH

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾

Dr. Heike Hanagarth

- Self-employed management consultant
- Former member of the Board of Management of Deutsche Bahn AG, Berlin

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾
- aichele GROUP GmbH & Co. KG, Bretten (Advisory Board)
- Gilde Buy Out Partners BV, Utrecht, Netherlands

Dr. Friedrich Janssen

- Member of the Supervisory Boards of various commercial enterprises
- Former member of the Board of Management of E.ON Ruhrgas AG, Essen

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾
- National-Bank AG, Essen¹⁾
- Hoberg & Driesch GmbH, Düsseldorf (Chairman of the Advisory Committee)

Pamela Knapp (since May 15, 2018)

- Member of the Boards of Management and Supervisory Boards of various European commercial enterprises
- Former CFO of GfK SE

Further offices:

- NV Bekaert SA, Kortrijk, Belgium (Member of the Board of Directors)
- Panalpina World Transport (Holding) AG, Basel, Switzerland (Member of the Board of Directors)
- Compagnie de Saint-Gobain S.A., Courbevoie, France (Member of the Board of Directors – Conseil d'Administration)
- Peugeot S.A., Rueil-Malmaison, France (Member of the Supervisory Board – Conseil de Surveillance)
- HKP Group AG, Zürich, Switzerland (Member of the Board of Directors)

Serving members

Thomas Meiers

- Secretary to the Board of Directors, Board Division 3 "Digitalization/Labor/Members" of the German Mining, Chemical and Energy Industrial Union (IG BCE), Hanover

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾
- INEOS Deutschland Holding GmbH, Cologne¹⁾
- INEOS Köln GmbH, Cologne¹⁾

Lawrence A. Rosen

- Member of the Supervisory Boards of various commercial enterprises
- Former member of the Board of Management of Deutsche Post AG, Bonn

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾
- Qiagen N.V., Venlo, Netherlands

Ralf Sikorski

- Member of the Executive Committee of the German Mining, Chemical and Energy Industrial Union, Hanover

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾ (Vice Chairman)
- Chemie Pensionsfonds AG, Munich¹⁾ (Chair) (since January 1, 2018)
- RAG AG, Herne¹⁾
- RAG Deutsche Steinkohle AG, Herne¹⁾
- RWE AG, Essen¹⁾
- RWE Power AG, Cologne and Essen¹⁾ (Vice Chairman)
- RWE Generation SE, Essen¹⁾
- KSBG – Kommunale Verwaltungsgesellschaft GmbH, Essen¹⁾ (Vice Chairman)

Manuela Strauch

- Chairwoman of the LANXESS Works Council at the Uerdingen site
- Member of the LANXESS Central Works Council

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾

Theo H. Walthie

- Self-employed consultant
- Former Global Business Group President for the Hydrocarbons & Energy Business of the Dow Chemical Company

Further offices:

- LANXESS Deutschland GmbH, Cologne¹⁾
- NBE Therapeutics AG, Basel, Switzerland (Chairman of the Board of Directors)

¹⁾ Statutory supervisory boards

The information about offices held refers to memberships in other supervisory boards and comparable supervisory bodies of companies in Germany and abroad (as of December 31, 2018).

Report of the Supervisory Board

DEAR STOCKHOLDERS,

LANXESS closed 2018 with a very strong result despite the environment becoming increasingly challenging.

Three of our four segments significantly improved their results. The Specialty Additives segment, which contains a large part of the recently acquired Chemtura businesses, performed particularly strongly. The realization of synergies contributed to the improvement in earnings here. In total, the Group posted a significant increase in EBITDA to €1.016 billion.

In 2018, LANXESS reached a major milestone in its transformation with the severance of its volatile rubber business. The remaining share in the joint venture ARLANXEO was sold for approximately €1.4 billion in cash. Pension assets were increased by €200 million from these funds and debt was reduced as a result. Our stockholders will benefit by a further €200 million from the buyback of treasury shares.

2019 will continue to be influenced by political and economic uncertainties. Nevertheless, we are assuming that business will remain stable. LANXESS now has a stronger balance sheet as a sound platform for further growth. Having achieved a more balanced product portfolio, the Group will further consolidate its business through operational improvement measures and the ongoing investment program.

During the reporting year, the Supervisory Board duly and fully performed the tasks and duties incumbent upon it under the law, the articles of association and the rules of procedure for the Supervisory Board. It regularly advised the Board of Management in its management of the company and monitored its activity. In the process, we were satisfied at all times by the legality, usefulness and propriety of the Board of Management's work. The Supervisory Board spent a particularly significant amount of time dealing with the company's strategic development and the sale of the rubber activities clustered in the joint venture ARLANXEO to the joint venture partner Saudi Aramco Oil Company (Saudi Aramco) in the reporting year.

The Supervisory Board was directly involved in all decisions of fundamental importance for the company. The Board of Management informed us regularly in written and oral reports about business performance, the situation of the Group, including the risk situation and risk management, strategic development, compliance, management development, the Group's digitalization projects and current issues. On the basis of these reports, we discussed significant business transactions in detail. We thoroughly examined the reports and the resolutions proposed by the Board of Management and discussed them at length in meetings of the full Supervisory Board and its committees. If the law, articles of

association or other provisions required the Supervisory Board to approve the actions of the Board of Management, we discussed these actions in detail and adopted resolutions on them.

The chairs of the Supervisory Board/Presidential Committee and Audit Committee and the Board of Management were in regular contact outside of the Supervisory Board's meetings. We discussed the company's current situation and material transactions.

PRINCIPAL TOPICS DISCUSSED BY THE SUPERVISORY BOARD

The Supervisory Board met a total of eight times in the reporting year 2017. We regularly discussed the sales and earnings performance of the Group and its segments, as well as the financial position. Additionally, the Board of Management kept us updated about the overall state of the economy, the situation in the chemical industry, the performance of LANXESS stock, investment and acquisition plans and sustainability issues. The Supervisory Board addressed the following important issues:

The focus of the Supervisory Board meeting held on March 13, 2018, was the review of the annual financial statements and consolidated financial statements for fiscal year 2017 and the proposal for use of the distributable profit. We discussed and approved the non-financial Group report 2017, which shows the sustainability aspects pursued by the company. The Supervisory Board also discussed and passed motions for resolution by the Annual Stockholders' Meeting and reviewed corporate governance matters. The Board of Management then presented the internal control, risk management and auditing systems, and we satisfied ourselves of their efficacy. Lastly, the Supervisory Board decided upon the variable compensation for the Board of Management members for fiscal year 2017 on the basis of the identified target attainment.

At the meeting on May 3, 2018, the Supervisory Board resolved to reappoint Mr. Matthias Zachert as a member of the Board of Management and to make him Chairman for the period from April 1, 2019, to March 31, 2024. The Supervisory Board also resolved to assume the costs of certain security measures for the benefit of the Board of Management. We also adjusted the rules of procedure for the Supervisory Board with regard to sustainability issues. In addition to a full report on environmental protection and occupational and plant safety, which was subsequently discussed by the full Supervisory Board, the Board of Management also presented a divestment project to us.

The meeting immediately before the Annual Stockholders' Meeting on May 15, 2018, served to prepare the Meeting. After the Annual Stockholders' Meeting, a constituting meeting to elect a new Chairman following the departure of the previous Chairman Dr. Rolf Stomberg took place. Dr. Matthias L. Wolfgruber was elected as the new Chairman. The committees were also filled. We also appointed Dr. Rolf Stomberg as the Honorary Chairman of the Supervisory Board.

At the meeting on July 31, 2018, we again dealt with the company's current M&A projects with the Board of Management. Among other things, we discussed the possible sale of all the shares in ARLANXEO, the joint venture for rubber business, to Saudi Aramco. We also addressed the positioning of LANXESS on the capital market and again looked at the assumption of the costs of certain security measures for the benefit of the Board of Management.

In an extraordinary meeting of the Supervisory Board on August 8, 2018, the Board of Management gave us a presentation on the advanced status of negotiations regarding the sale of all shares in ARLANXEO. The reasons for the transaction and all material parameters of the agreements were discussed in depth. As a result, we resolved to approve the sale of the shares in ARLANXEO proposed by the Board of Management to the joint venture partner Saudi Aramco.

At the meeting held on November 8, 2018, the Board of Management first gave us a report on the current occupational safety situation and provided us with information about the general considerations governing the use of the anticipated proceeds of the ARLANXEO transaction. We also discussed the details of the Group's succession planning that we had been given. The results of an employee survey carried out worldwide were also presented to us.

At its meeting on December 6, 2018, the Supervisory Board reviewed in full and approved the corporate planning for 2019 proposed by the Board of Management. We also discussed the company's strategic alignment – including sustainability aspects – and capital expenditure policy. As in previous years, current developments in corporate governance were a topic on the agenda of the December meeting. After reviewing compliance with the recommendations and suggestions of the German Corporate Governance Code (GCGC), we resolved to issue a declaration of compliance. The Supervisory Board defined the conditions for the Board of Management's variable compensation components for fiscal year 2019 and dealt with the preparation of decisions about the membership of the Board of Management.

All members of the Supervisory Board and its committees performed their duties diligently and conscientiously. The attendance at meetings of the Supervisory Board and its committees was a good 97% overall. No member of the Supervisory Board attended half or less than half of the meetings of the Supervisory Board and the committees of which he or she is a member. An overview of the attendance of individual Supervisory Board members at meetings of the Supervisory Board and its committees can be found

on the company's website. The stockholder representatives and employee representatives to the Supervisory Board worked together in a spirit of trust. They regularly held separate meetings at which they prepared the meetings of the full Supervisory Board. The members of the Board of Management attended the Supervisory Board meetings unless the Chairman of the Supervisory Board determined otherwise.

WORK OF THE COMMITTEES

The Supervisory Board has four committees: the Presidial Committee, the Audit Committee, the Nominations Committee and the Committee formed pursuant to Section 27, Paragraph 3 of the German Codetermination Act. The committees are tasked with preparing the topics and resolutions to be discussed at meetings of the full Supervisory Board. They also, at times, exercise decision-making powers conferred on them by the Supervisory Board.

The Presidial Committee convened five times during the reporting year to prepare the meetings of the Supervisory Board and the decisions to be reached by the full Supervisory Board at its meetings concerning human resources measures in the company's Board of Management.

The Audit Committee met four times during the year. It dealt in particular with the annual financial statements of LANXESS AG, the consolidated financial statements and the combined management report for fiscal year 2017, the quarterly statements issued during fiscal year 2018, and the condensed consolidated financial statements and interim management report included in the 2018 half-year financial report. It also reviewed the company's risk management and internal control systems. Another focus of the committee's work was the evaluation of the financial and accounting effects of the sale of the shares in ARLANXEO. The Audit Committee also dealt with the concept for approving non-audit services and the non-financial Group report 2017. Other topics discussed were the significant findings by the internal audit department, corporate planning, compliance and the determination of the principal areas of focus for the audit of the 2018 financial statements. The Committee also found out about the impact of changes to various IFRS standards on LANXESS's accounting, strategies to hedge currency risks and the recent audit of OTC derivatives contracts pursuant to Section 20 of the German Securities Trading Act. The external auditor reported on the auditing activities at two of the four Audit Committee meetings.

The Nomination Committee did not meet in fiscal year 2018. The Committee formed pursuant to Section 27, Paragraph 3 of the German Codetermination Act did not need to convene.

The chairmen of the committees each reported on the meetings and the work of the committees at the meetings of the full Supervisory Board.

CORPORATE GOVERNANCE AND DECLARATION OF COMPLIANCE

In the year under review, the Supervisory Board discussed the GCGC. The joint declarations of compliance made by the Board of Management and Supervisory Board pursuant to Section 161 of the German Stock Corporation Act can be viewed by stockholders at any time on the company's website. As expressed in the declarations, LANXESS AG complies with the GCGC's recommendations and suggestions except in one justified case. No conflicts of interest on the part of Supervisory Board members became known last year. Further information about corporate governance can be found in the Corporate Governance Report and the Board of Management's declaration pursuant to Section 289f of the German Commercial Code.

ANNUAL AND CONSOLIDATED FINANCIAL STATEMENTS

The annual financial statements prepared by the Board of Management of LANXESS AG in accordance with the rules of the German Commercial Code, the consolidated financial statements prepared in accordance with the International Financial Reporting Standards (IFRS) and the combined management report for fiscal year 2018 were audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, the auditor appointed by the Annual Stockholders' Meeting on May 15, 2018, and engaged by the Supervisory Board. The auditor issued an unqualified opinion in each case. The auditor carried out the audit in accordance with Section 317 of the German Commercial Code and Regulation (EU) No 537/2014 of the European Parliament and of the Council of 16 April 2014 on specific requirements regarding statutory audit of public-interest entities and repealing Commission Decision 2005/909/EC according to a selection procedure implemented by the company. The auditor responsible for the audit was Mr. Jörg Sechser.

The Supervisory Board convinced itself of the independence of the auditor and the persons acting on the auditor's behalf.

The audit reports and the documents relating to the financial statements were discussed at length with the Board of Management and the auditor at the Audit Committee meeting held on March 12, 2019. They were also discussed in detail on the basis of the required documents and notes at the Supervisory Board's financial statements meeting held on March 13, 2019. The responsible auditor was present for the discussions concerning the financial statements of LANXESS AG and the consolidated financial statements of the LANXESS Group. He reported on the scope, focus areas and significant findings of the audits and went into particular detail on the key audit matters. He was also available to the Audit Committee and full Supervisory Board to provide additional information.

Based on the recommendation of the Audit Committee as well as on its own review and in-depth discussions about the financial statements of LANXESS AG, the consolidated financial statements of the LANXESS Group, the combined management report and the proposal for appropriation of the profit, the Supervisory Board endorsed the auditor's conclusions and had no objections to raise. The Supervisory Board has approved the annual financial statements of LANXESS AG and the consolidated financial statements of the LANXESS Group, which were prepared by the Board of Management. The Supervisory Board endorsed the Board of Management's proposal for use of the distributable profit after close examination and extensive deliberations that carefully weighed the best interests of the company and the stockholders.

CHANGES IN THE SUPERVISORY BOARD AND BOARD OF MANAGEMENT

At the end of the Annual Stockholders' Meeting on May 15, 2018, the longstanding Chairman Dr. Rolf Stomberg left the Supervisory Board. We have thanked him for his professional management of our Supervisory Board and the mutual trust achieved in working relationships as well as his contribution to the company's success. He had a decisive influence on the work of the Supervisory Board since LANXESS was founded. By resolution of the Annual Stockholders' Meeting of May 15, 2018, Ms. Pamela Knapp was elected as a member of the Supervisory Board until the Annual Stockholders' Meeting in 2023.

At the end of his period in office, which was set at one year, on May 31, 2018, Mr. Stephen C. Forsyth left the Board of Management of the company.

The Supervisory Board thanks the members of the Board of Management, all of the Group's employees around the world and the employee representatives for their commitment and work in fiscal year 2018.

Cologne, March 13, 2019

The Supervisory Board



Dr. Matthias L. Wolfgruber
Chairman

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GROUP STRUCTURE

Legal structure

LANXESS AG is the parent company of the LANXESS Group and functions largely as a management holding company. LANXESS Deutschland GmbH is a wholly owned subsidiary of LANXESS AG and in turn controls the other domestic and foreign subsidiaries and affiliates.

The following are the principal companies wholly owned by LANXESS AG directly or indirectly:

Principal Direct or Indirect Subsidiaries of LANXESS AG

Company Name and Domicile	Function	Segments
LANXESS Deutschland GmbH, Cologne, Germany	Production and sales	Advanced Intermediates/ Specialty Additives/ Performance Chemicals/ Engineering Materials
LANXESS Solutions US Inc., Middlebury, U.S.	Production and sales	Advanced Intermediates/ Specialty Additives/ Engineering Materials
LANXESS Corporation, Pittsburgh, U.S.	Production and sales	Advanced Intermediates/ Specialty Additives/ Performance Chemicals/ Engineering Materials
Saltigo GmbH, Leverkusen, Germany	Production and sales	Advanced Intermediates
LANXESS N.V., Antwerp, Belgium	Production and sales	Advanced Intermediates/ Engineering Materials
LANXESS Sales Netherlands B.V., Amsterdam, Netherlands	Sales organization	Specialty Additives
LANXESS India Private Limited, Thane, India	Production and sales	Advanced Intermediates/ Performance Chemicals/ Engineering Materials
Great Lakes Chemical Corporation, Wilmington, U.S.	Production	Specialty Additives

The 50% interest in ARLANXEO Holding B.V., Maastricht, Netherlands, together with the equity investments it held, was sold on December 31, 2018.

Management and control organization

LANXESS AG has a two-tier management structure consisting of the Board of Management, which manages the company, and the Supervisory Board, which oversees the Board of Management with the support of an Audit Committee formed from among its members to advise on financial matters. The Board of Management shapes Group strategy and manages resource allocation, infrastructure and organization. As the Group management company, LANXESS AG is responsible for financing and for communication with the company's key stakeholders.

BUSINESS ACTIVITIES

Business organization and Group portfolio

On December 31, 2018, LANXESS completed the sale of its 50% interest in ARLANXEO to the Saudi Aramco subsidiary Aramco Overseas Holdings Coöperatief U.A., The Hague, Netherlands, as agreed on August 8, 2018. All relevant antitrust authorities had already cleared the transaction. In connection with the transaction, the 50% interest in ARLANXEO Holding B.V., Maastricht, Netherlands, together with the equity investments it held, was derecognized.

ARLANXEO has been reported as discontinued operations in accordance with IFRS 5 since April 1, 2018. Since then, our reporting has focused on continuing operations without ARLANXEO. While the statement of financial position was not restated for reporting dates before April 1, 2018, prior-year figures were restated in the income statement and earnings from discontinued operations shown in a separate line. In the disclosures below, we generally do not point out that prior-year figures have been restated in this context. In places where this is not the case, this is indicated accordingly.

As a result of the disposal of ARLANXEO, this operation is no longer reported on. In the other four operating segments – Advanced Intermediates, Specialty Additives, Performance Chemicals and Engineering Materials – and their ten business units altogether, there have been no significant changes in the fiscal year 2018.

Our business units conduct their own operations, for which they have global profit responsibility. Group functions support our business units by providing financial, legal, technical and other centralized services. Complementing this global alignment of the business units and Group functions, the country organizations ensure the necessary proximity to markets and provide the organizational infrastructure required.

On February 7, 2018, LANXESS acquired the U.S. phosphorus additives business from the Belgian chemicals group Solvay including its U.S. production site in Charleston. The site manufactures phosphorus additives and numerous derived products such as flame retardant additives and intermediates for agrochemicals. The production facility augments the global production network for phosphorus- and bromine-based flame retardants, especially on the U.S. market. The business was integrated in the Additives business unit in the Specialty Additives segment.

As part of the consolidation of our plant network, we bundled production of lubricant precursors at our Elmira site in Canada and closed the former Chemtura sites Ankerweg in Amsterdam, Netherlands, and Rio Claro, Brazil, in 2018. We sold the production site in Reynosa, Mexico, in the second half of 2018.

Details about the scope of consolidation are provided in the Notes to the Consolidated Financial Statements as of December 31, 2018.

The segments in brief

The business activities that LANXESS combines in its Advanced Intermediates segment make it one of the world's leading suppliers of industrial chemical intermediates and a key player in the custom synthesis and manufacturing of chemical precursors and specialty active ingredients.

Advanced Intermediates

Business units	Advanced Industrial Intermediates Saltigo
Sites	Antwerp, Belgium Liyang (China) Bergkamen, Brunsbüttel, Dormagen, Krefeld-Uerdingen, Leverkusen, Germany Nagda, Jhagadia, India Pyeongtaek, Republic of Korea Baytown, Bushy Park, Mapleton, U.S.
Applications	Agrochemicals Automotive Construction Aromas and flavors Pharmaceuticals Tire chemicals Semiconductors and photovoltaics

Our solutions based on specialty additive chemicals are combined in the Specialty Additives segment.

Specialty Additives

Business units	Additives
Sites	Rhein Chemie Burzaco, Merlo, Argentina Porto Feliz, Brazil Nantong, Qingdao, China Krefeld-Uerdingen, Leverkusen and Mannheim, Germany Epiere, France Trafford Park, Great Britain Jhagadia, India Latina, Italy Toyohashi, Japan Elmira, West Hill, Canada Altamira, Mexico Lipetsk, Russia Kaohsiung, Taiwan Chardon, Charleston, East Hanover, El Dorado, Fords, Greensboro, Little Rock, U.S.
Applications	Polymer additives Phosphorous-based or brominated flame retardants Lubricants

We report our application-oriented process and functional chemicals operations in the Performance Chemicals segment.

Performance Chemicals

Business units	Inorganic Pigments Material Protection Products Leather Liquid Purification Technologies
Sites	Sydney, Australia Porto Feliz, Brazil Changzhou, Shanghai, Ningbo, China Bitterfeld, Dormagen, Krefeld-Uerdingen and Leverkusen, Germany Branston, Sudbury, Great Britain Jhagadia, India Filago, Italy Singapore Vilassar de Mar, Spain Merebank, Newcastle and Rustenburg, South Africa Burgettstown, Memphis, Pittsburgh, U.S.
Applications	Disinfection Protection and preservation of wood, construction materials, coatings and foodstuffs Color pigments Products for leather processing and water treatment

We have combined our engineering plastics activities in the Engineering Materials segment.

Engineering Materials

Business units	High Performance Materials Urethane Systems
Sites	Antwerp, Belgium Porto Feliz, Brazil Nantong, Wuxi, China Brlon, Hamm-Uentrop and Krefeld-Uerdingen, Germany Baxenden, Great Britain Jhagadia, India Latina, Italy Gastonia, Perth Amboy, U.S.
Applications	Automotive Construction Medical equipment Electrical/electronics Mining Tires and wheels Oil and gas Industrial and mechanical goods

STRATEGY

We have successfully developed our core business over the past years and are therefore keeping up our corporate strategy: In our target scenario, LANXESS will be a much more stable specialty chemicals company from 2021 onward, with stronger cash flow and a more balanced and sustainable portfolio than in the past. We will have strengthened our regional presence in North America and Asia, enabling us to participate in the growth of these regions. With regard to our sales markets, we will have achieved a good balance between stability and growth potential. Our businesses will have attained leading position in their respective market segments. Starting from this balanced basis, we will further spur on our profitable growth.

The improved positioning is also to be reflected in LANXESS's financial figures. Starting from fiscal year 2021, we are aiming for an average operating earnings margin – measured in terms of EBITDA pre exceptionals – over the course of a business cycle of between 14% and 18%. At the same time, the margin in any year should move around the average level by no more than two to three percentage points. A sound investment-grade rating will continue to constitute a strict goal of our conservative financial policy.

Transformation progressing rapidly

At the end of the reporting year, we completed the sale of our 50% stake in ARLANXEO to Saudi Aramco. We received a payment of roughly €1.4 billion from Saudi Aramco for our share. Part of the cash inflows will be invested in our organic growth. One focus area is the optimization and expansion of facilities at several sites around the world in order to make them more competitive and therefore more sustainable. A second focus area is our regional growth strategies. Accordingly, we have adjusted our regional organization and adopted investment budgets with a five-year horizon for the North America and Asia-Pacific regions.

Of the total planned cost synergies of €100 million from the integration of Chemtura, another approximately €40 million were generated in fiscal year 2018. We now expect the remaining €30 million to be generated by the end of 2020.

Further activities aim to tap into new income potential for LANXESS. Together with the Canadian company Standard Lithium, our U.S. site in El Dorado is currently examining the technical and economic feasibility of extracting lithium suitable for use in batteries from our brine. The biotech startup IMD Natural Solutions, which we acquired in the previous year, researches and develops natural substances with an antimicrobial effect for the food and beverage industry. We see this as an opportunity to offer our customers a solution based on natural substances complementing our material protection and disinfection portfolio.

Sustainability as a basic requirement

LANXESS aims to be an enduringly successful chemicals company. The basic requirement for this is to think about and practice sustainability in an integrated way in all of its dimensions and in a societal context. The challenge of very deliberately considering the effects of all decisions – including the non-financial dimension – motivates us and is reflected in a large number of specific targets. These relate to topics such as climate protection, constant further development of our processes, continuous investments to keep our sites competitive and sustainable, and regular analysis of our product portfolio – from raw material production through to waste management.

VALUE MANAGEMENT AND CONTROL SYSTEM

To achieve our strategic goals, we need indicators that we can use to measure the outcomes of our activities. The most important indicator of our financial performance – and thus the company's key controlling indicator – is EBITDA (operating earnings before depreciation, amortization, write-downs, and reversals) pre exceptionals. We view other financial performance ratios such as return on capital employed (ROCE), days of sales in inventory (DSI), days of sales outstanding (DSO) and the net financial debt ratio as company-specific leading indicators or as a basis for monitoring.

Value Management and Control System

		2014	2015	2016	2017	2018
EBITDA pre exceptionals	€ million	808	885	995	925 ¹⁾	1,016
EBITDA margin pre exceptionals	%	10.1	11.2	12.9	14.2 ¹⁾	14.1
Capital employed	€ million	5,093	5,043	7,479	7,463	5,204 ²⁾
ROCE	%	7.9	8.4	6.9	9.3	11.4
Days of sales in inventory (DSI)	Days	65.4	67.2	67.2	64.7	68.6
Days of sales outstanding (DSO)	Days	48.0	47.6	51.1	50.7	46.0
Net financial liabilities	€ million	1,336	1,211	2,394	2,252	1,923
Net financial liabilities after deduction of time deposits and securities available for sale	€ million	1,336	1,211	269	2,252	1,381
Net financial debt ratio		1.7x	1.4x	0.3x	1.7x	1.4x
Investment ratio	%	7.7	5.5	5.7	6.1 ¹⁾	6.9

1) Figures restated and as in reporting year 2018 not including ARLANXEO.

2) Capital employed as of December 31, 2018, adjusted. See "Profitability" for details.

Our success is largely reflected by our earning power, hence our control system is focused on steering this metric.

Earning power

The key indicator for steering the earning power of the LANXESS Group and the individual segments is EBITDA pre exceptionals. It is calculated from EBIT by adding back depreciation and impairments of property, plant and equipment as well as amortization and impairments of intangible assets, subtracting reversals of impairment charges on property, plant, equipment and intangible assets, and excluding exceptional items. The latter are effects that, by nature or extent, have a significant impact on the earnings position, but for which inclusion in the evaluation of business performance over several reporting periods does not seem to be appropriate. Exceptional items may include write-downs, reversals of impairment charges or the proceeds from the disposal of assets, certain IT expenses, restructuring expenses and income from the reversal of provisions established in this connection, and reductions in earnings resulting from portfolio adjustments or purchase price allocations. Grants and subsidies from third parties for the acquisition and construction of property, plant and equipment are accounted for as deferred income using the gross method. In this respect, no adjustments other than for gross depreciation and amortization are made when calculating EBITDA pre exceptionals.

Every operational decision or achievement is judged in the short and long term by its sustainable impact on EBITDA pre exceptionals. As part of the annual budget and planning process, targets are set for this benchmark of our company's success, which are then taken into account in determining employees' variable income components.

Simple revenue data such as net sales are not among the Group's controlling parameters because they do not permit any direct conclusions about our profitability. Volatile raw material prices are a hallmark of our industry and their fluctuation throughout the year impacts our selling prices. This influences sales but, other than through short-term alignment effects, generally has no impact on the absolute margins that are significant to our profitability. We therefore set sales targets neither for the short nor medium term.

The earnings margins are calculated from the ratios of the respective earnings indicators to sales. For example, the EBITDA margin (pre exceptionals) is calculated as the ratio of EBITDA (pre exceptionals) to sales and serves as an indicator of relative earning power at Group level and for the individual segments.

Company-specific leading indicators

Leading indicators support the timely identification of material changes in the company's earnings, asset and financial position and the initiation of appropriate measures.

Our annual budget and planning process delivers key values for the Group's earning power and our ability to finance operations from our own funds as the starting point for steering the company. This information is used, for example, to make financing and capital expenditure decisions. To ensure a timely response to changes in market conditions and the competitive environment, we prepare operational forecasts twice each fiscal year as the basis for updating the full-year budget and the associated key values used to control the Group. In addition, regular forecasts of the key values for our earning power are prepared.

Certain parameters used in budgets and forecasts are defined centrally and applied uniformly as they have a major influence on the key values. Strategic raw materials have a crucial role in forecasting. The development of procurement prices is significant to the timely adjustment of selling prices. Even regional differences in the availability of raw materials over a specific period of time may become significant. Given the regional diversification of our production sites and customer markets, exchange rate development also affects the earning power resulting from sales and cost trends, with corresponding repercussions for pricing and hedging strategies. In addition, we draw on continuously updated growth forecasts for our customer industries and the regions where we do business in order to prepare and review sales and capital expenditure decisions.

Profitability

Return on capital employed (ROCE) has been implemented as a profitability ratio at Group level which indicates how efficiently we utilize our capital. This makes it an important criterion in capital expenditure decisions, for example.

$$\text{ROCE} = \frac{\text{EBIT pre exceptionals}}{\text{Capital employed}}$$

$$\text{Capital employed} = \begin{array}{l} \text{Total assets} \\ \text{Less deferred tax assets} \\ \text{Less interest-free liabilities} \end{array}$$

Interest-free liabilities comprise provisions (except those for pensions and other post-employment benefits), income tax liabilities, trade payables and items included under "other non-financial liabilities." In addition, we use a simplified variant of ROCE, called "business ROCE," to evaluate the contribution of our business units.

In the 2018 reporting year, ROCE was 11.4% and thus above our weighted average cost of capital (WACC) after adjustment for comparability. In the previous year, ROCE was 9.3%. The capital employed of fiscal year 2018 was adjusted for an amount of around €1.2 billion. This results from the financial resources received on December 31, 2018, for the sale of the 50% interest in ARLANXEO less the additional pension funding in Germany.

Cost of capital

Borrowing costs are calculated from risk-free interest, i.e. in our case, from the return on a long-term German government bond plus a risk premium for industrial companies in the same risk category as LANXESS. The cost of equity reflects the return expected by investors from an investment in LANXESS shares. Equity investors demand a risk premium because of the greater risk involved in acquiring shares rather than buying risk-free government bonds. This is known as a market risk premium and is calculated using the long-term excess return generated by a stock investment over an investment in risk-free government bonds and adjusted by the beta factor denoting the relative risk of an investment in LANXESS stock compared with that of the market as a whole.

Capital employment

To optimize our working capital at the operational level, we use two key performance indicators: DSO (days of sales outstanding) and DSI (days of sales in inventory). These show receivables and inventories in relation to sales for the previous quarter. In fiscal year 2018, DSI was at 68.6 days (previous year: 64.7 days) and DSO at 46.0 days (previous year: 50.7 days). The development of these performance indicators was influenced by the initial application of IFRS 15 "Revenue from Contracts with Customers" as of January 1, 2018. Due to the contract assets and liabilities shown in this context in the statement of financial position for the first time, the recognized value of inventories was increased and the recognized value of receivables was decreased.

Expenditures for property, plant and equipment are subject to rigorous capital discipline and are systematically aligned with the product areas that show the greatest potential for success. We prioritize investment projects on the basis of financial indicators such as pay-back period, net present value and ROCE. The investment rate is an indicator that describes cash outflows for capital expenditures divided by sales.

Debt

Net financial liabilities are the total of current and non-current financial liabilities less liabilities for accrued interest, cash, cash equivalents and near-cash assets and amounted to €1,923 million. After the further deduction of time deposits and securities available for sale, net financial liabilities as of December 31, 2018, amounted to €1,381 million, compared with €2,252 million at the end of the previous year. The decline resulted primarily from the financial resources received from the sale of the 50% interest in ARLANXEO.

The net financial debt ratio, which we use solely at Group level, is defined as net financial liabilities divided by EBITDA pre exceptionals. On the basis of net financial liabilities after deduction of time deposits and securities available for sale, the net financial debt ratio as of December 31, 2018, decreased to 1.4 from 1.7 at the previous year's reporting date.

At Group level, we also consider provisions for pensions and other post-employment benefits to be components of debt. Compared with the end of 2017, they decreased by €407 million to €1,083 million. Including this additional component of debt, adjusted for related deferred tax assets of €279 million (previous year: €335 million) and reduced by the receivables relating to pension obligations recognized under other non-current assets of €75 million (previous year: €57 million), the total net debt ratio in relation to EBITDA pre exceptionals was 2.1, compared with 2.6 at the previous year's reporting date.

Net Financial Liabilities

€ million	2014	2015	2016	2017	2018
Non-current financial liabilities	1,698	1,258	2,734	2,242	2,686
Current financial liabilities	182	443	78	633	59
Less:					
Liabilities for accrued interest	(26)	(24)	(23)	(35)	(25)
Cash and cash equivalents	(418)	(366)	(355)	(538)	(797)
Near-cash assets	(100)	(100)	(40)	(50)	0
Net financial liabilities	1,336	1,211	2,394	2,252	1,923
less time deposits and securities available for sale	0	0	(2,125)	0	(542)
Net financial liabilities after deduction of time deposits and securities available for sale	1,336	1,211	269	2,252	1,381

BUSINESS PROCESSES AND EMPLOYEES

Procurement

LANXESS uses its centrally managed global procurement organization – Global Procurement & Logistics – to ensure a reliable supply of raw and other materials and services. “Global Categories” closely coordinate with our business units to pool their requirements in the raw materials, technical goods, packaging materials, energy, services and logistics segments. Our worldwide procurement network facilitates purchasing synergies, so that we can move efficiently in the market and exploit price advantages. We avoid delivery bottlenecks or reliance on individual suppliers using strategies like multiple sourcing. In the reporting period, we took various measures to prevent delivery shortfalls or bottlenecks due to the Rhine’s low water levels, so there were no material effects on our business development.

Procuring chemical raw materials is a high priority at LANXESS. Our aim is to secure our supplies on the basis of long-term contracts. The availability of raw materials has always been a crucial factor in facility location decisions. We procure key raw materials and utilities in the form of steam and biomass from the immediate vicinity at several of our production sites. In this way, we not only minimize the costs and environmental impact of our transportation activities, but also reduce the risk of delivery shortfalls caused by transportation issues in particular.

Our biggest suppliers of chemical raw materials in 2018 included Albemarle, BASF, BP, Chevron, Covestro, ExxonMobil, INEOS, Invista, Sasol and Shell Chemicals.

Among the most important strategic raw materials by far for our production operations in 2018 were ammonia, benzene, chlorine, cyclohexane, cyclohexanone, caustic soda and toluene. In all, strategic raw materials accounted for a procurement volume of approximately €1.6 billion in fiscal year 2018 (previous year: approximately €1.5 billion). This equates to around 53% of our total procurement spend for raw materials and goods in 2018, which amounted to approximately €3.1 billion (previous year: €2.7 billion). Our total procurement spend in 2018 was around €5.2 billion (previous year: around €4.6 billion).

Production

LANXESS is one of the world’s major producers of specialty chemicals. Our production facilities make anywhere from very small batches of custom-synthesized products to basic, specialty and fine chemicals as well as polymers in quantities of several ten thousand metric tons.

Our production facilities are organizationally assigned to individual business units. The most important production sites are located in Leverkusen, Dormagen, the Uerdingen district of Krefeld and Bergkamen, Germany; Antwerp, Belgium; Trafford Park, Great Britain; Latina, Italy; Baytown, El Dorado and Perth Amboy, U.S.; Elmira, Canada; Jhagadia and Nagda, India; and Changzhou, Nantong and Ningbo, China. For a detailed breakdown of our production sites by segment, please see [“The segments in brief”](#) in this Combined Management Report.

Sales organization

We sell our products globally, to several thousand customers in around 150 countries across all continents. LANXESS’s longstanding customer base includes leaders in each of its user industries. We have well-established customer relationships in all sales regions. To meet our customers’ needs, we have set up flexible marketing and sales structures. We manage our sales throughout the world through 53 companies owned by LANXESS itself. In countries where we do not yet have our own company, we work with local sales partners.

To keep as close as possible to customers and ensure they receive individual support, each of our business units manages its own sales organization. Another competitive advantage is derived from having 60 of our own production sites in 19 countries. Wherever possible, customers are supplied from production sites in the same region, yielding advantages in terms of time and costs.

Sales markets

Because of our broad offering, we have business relationships with a large number of customers all over the world. These customers need an individualized, well-focused approach, which we are able to provide because our sales organizations are managed through business units.

LANXESS serves the following industries in particular: automotive, chemicals, agrochemicals, construction, electronics, leather products, plastics, pharmaceuticals, food, water treatment and furniture.

Shares of Sales by Industry Sector

%	2018
Chemicals	~ 30
Automotive	~ 20
Construction, electrical/electronics, leather products	~ 20
Agrochemicals	~ 10
Others (cumulative share)	~ 20

In fiscal year 2018, our top ten customers accounted for about 18% (previous year: 18%) of total sales. None of our customers accounted for more than 10% of Group sales. 41 (previous year: 35) customers accounted for annual sales in excess of €20 million. The number of customers in each segment varies widely. The comparatively low sales per customer in the Performance Chemicals segment, as well as its broad customer base, reflect the way in which its business often involves custom-tailored solutions in specialty chemicals. By contrast, the substantially lower numbers of customers in the Engineering Materials segment, which nonetheless generate relatively high sales, are typical of the high-performance plastics business. No segment can be considered dependent on just a few customers.

Research and development

Research and development makes an important contribution toward increasing our competitiveness and expanding our product portfolio through the development of innovative products and processes as well as the ongoing optimization of existing production processes. The sale of the 50% interest in ARLANXEO to Saudi Aramco also included the research units for high-performance rubber.

Organizational focus

Our research programs are aligned with the needs of customers in the end markets. We have therefore consolidated our product innovation activities in the respective business units.

The business units focus their activities on optimizing products and product quality, as well as on developing new products. The Global Technology & Innovation department within our Production, Technology, Safety & Environment Group function supports and complements the business units' research and development activities, with the focus on process innovation. The emphasis here is on planning new processes and integrating new technologies into our existing production processes with the aim of achieving cost and technology leadership. Our main research and development units are at the sites in Leverkusen, Dormagen, the Uerdingen district of Krefeld and Mannheim, Germany, and Naugatuck, U.S. We also operate a center for engineering plastics in Hong Kong. At our research and development sites, we test materials such as innovative flame retardants and engineering plastics for lightweight automotive engineering applications.

Cost trend and employees

Research and development expenses in 2018 totaled €118 million, or 1.6% of sales (previous year: €103 million or 1.6%). The Additives, High Performance Materials, Material Protection Products and Saltigo business units together accounted for the largest share of these expenses. Material Protection Products, Urethane Systems, Liquid Purification Technologies and Saltigo were the business units with the highest research intensity as measured by the ratio of research and development expenses to sales.

Research and Development Expenses

	2014	2015	2016	2017	2018
Research and development expenses (€ million)	160	130	131	103	118
% of sales	2.0	1.6	1.7	1.6	1.6

Figures from 2017 not including ARLANXEO

At the end of 2018, we employed 523 people – against 521 in the previous year – in our research and development laboratories worldwide.

Number of Employees in Research and Development

	2014	2015	2016	2017	2018
Year end	708	585	589	521	523
% of Group employees	4.3	3.6	3.5	3.4	3.4

Figures from 2017 not including ARLANXEO

Fields of activity and patent strategy

We focus our research and development activities on market-driven projects with a short- to medium-term time horizon. The total number of projects in 2018 was 239 after 251 in the previous year, 159 (previous year: 166) of which aimed to develop new products and applications or improve existing ones. The remaining 80 projects (previous year: 85) concerned process technology issues with a view to reducing costs, improving efficiency or increasing capacity.

The results of our activities are protected by patents, where this is possible and expedient. In the course of 2018, we submitted 41 priority applications worldwide. As of December 31, 2018, the full patent portfolio included approximately 800 patent families covering around 5,535 property rights.

Employees

As of December 31, 2018, the LANXESS Group had a total of 15,441 employees, against 19,029 at the closing date of the previous year. Not including the employees attributable to ARLANXEO, the number of employees at the closing date of the previous year was 15,283.

In the EMEA region (excluding Germany), the number of employees as of December 31, 2018, was 2,521, up from 2,582 in the previous year. In Germany, headcount rose from 7,312 to 7,532. The number of employees in the North America region increased to 2,050 from 1,929 as of December 31, 2017, while Latin America saw its workforce decline from 850 at the end of the previous year to 766. At the reporting date, we employed 2,572 people in the Asia-Pacific region, which was 38 fewer than at the closing date of the previous year. The decline in EMEA and Latin America is primarily due to the closure of the former Chemtura sites Ankerweg in Amsterdam, Netherlands, and Rio Claro, Brazil, and to the sale of the production site in Reynosa, Mexico.

Personnel expenses for the Group in fiscal year 2018 totaled €1,328 million (previous year: €1,291 million). Wages and salaries, at €1,066 million (previous year: €1,018 million), accounted for the greater part of this figure. Social security contributions amounted to €159 million (previous year: €177 million), while pension plan expenses were €90 million (previous year: €85 million) and social assistance benefits €13 million (previous year: €11 million).

LEGAL ENVIRONMENT

There were no changes in the legal environment in fiscal year 2018 that would have had a material impact on the earnings, asset and financial position of the LANXESS Group or LANXESS AG.

BUSINESS CONDITIONS

The economic environment

The global economy performed in line with expectations in 2018. While growing populist and protectionist trends such as emerging trade barriers in the U.S. market had a dampening effect in some areas, temporarily increased oil prices failed to curb growth.

The generally positive environment led to global economic growth of 3.0%, with contributions from all regions, particularly Asia-Pacific.

GDP and Chemical Production in 2018

Change vs. prior year in real terms (%)	Gross domestic product	Chemical production
USMCA (formerly NAFTA)	3.0	3.5
Latin America	0.5	(0.5)
EMEA (incl. Germany)	2.0	1.5
Germany	1.5	0.0
Asia-Pacific	4.5	4.0
World	3.0	3.5

Source for 2018 growth rates: IHS Markit

One euro was worth US\$1.15 at the end of 2018. The value of the U.S. currency thus grew by 4.2% on the closing price of US\$1.20 at the end of 2017. At US\$1.18, however, the average price for the year was above the previous year's average of US\$1.13. Due to the regional positioning of our business, a stronger U.S. dollar generally has a positive effect on our earnings. Centralized hedging activities limit any impact that cannot be neutralized by ensuring that production and sales take place in the same currency area.

Compared with the previous year, procurement prices for raw materials rose slightly, both for aromatics and olefins and for organic and inorganic raw materials. The price of toluene and chlorine on the procurement markets rose on average for the year, whereas the prices of other feedstocks such as ammonia and benzene fell slightly.

The chemical industry

Global chemical production was up 3.5%, driven by the Asia-Pacific and USMCA regions.

Evolution of major user industries

Global automobile production was up 1.5% year-on-year in the reporting year. The development in Europe was positive overall despite declining sales figures in Germany. Growth of 1.0% was seen in Asia-Pacific, which is chiefly attributable to the slump in demand in China in the second half of the year. The positive trend in Latin America had little impact on the global trend as this region has comparatively less weight than the others.

Agrochemicals stagnated. Growth in EMEA and the Americas, especially USMCA, was offset by declining performance in the Asia-Pacific economic area and in Germany.

The global construction industry grew by 3.0%. This development stemmed mainly from EMEA and Asia-Pacific.

Overall, development in the customer industries fell short of expectations, especially in the automotive sector and agrochemicals. However, this had no material influence on the LANXESS Group's business.

Evolution of Major User Industries in 2018

Change vs. prior year in real terms (%)	Auto-motive	Agro-chemicals	Con-struction
USMCA (formerly NAFTA)	1.0	4.5	2.5
Latin America	21.5	1.5	1.5
EMEA (incl. Germany)	0.5	1.5	3.0
Germany	(2.5)	(1.5)	4.0
Asia-Pacific	1.0	(1.0)	3.0
World	1.5	0.0	3.0

Source for 2018 growth rates: IHS Markit

KEY EVENTS INFLUENCING THE COMPANY'S BUSINESS

The generally positive business performance was mainly influenced by the operating strength of the Advanced Intermediates and Engineering Materials segments, as well as the new Specialty Additives segment created in the previous year. Higher procurement prices for raw materials and energy were successfully passed on to customers here.

Business development continued to benefit from the successful operational integration of Chemtura. The business units acquired in April 2017 contributed positive portfolio effects on earnings.

Currency effects had an unfavorable effect on earnings.

With the sale of ARLANXEO completed on December 31, 2018, we have taken a further significant step on the way to becoming a much more stable specialty chemicals company.

COMPARISON OF FORECAST AND ACTUAL BUSINESS

Comparison of Forecast and Actual Business 2018

	Forecast for 2018 in Annual Report 2017	Actual 2018
Business development: Group		
EBITDA pre exceptionals	<ul style="list-style-type: none"> Up slightly on the previous year (€925 million) Takes account of expected cost reductions, synergies from the acquisition of Chemtura, earnings contributions of the businesses acquired in 2017 Expected sales growth of the global economy and cost-effectiveness measures initiated in the integration of Chemtura have a positive effect on earnings performance 	<ul style="list-style-type: none"> €1,016 million Realization of additional cost synergies from the Chemtura integration and significant earnings contributions from businesses acquired in the previous year Global economy and chemical production growing in line with expectations; development of customer industries poorer than expected
Business development: segments		
Advanced Intermediates	<ul style="list-style-type: none"> Business development on a par with the previous year Demand from customers in the agricultural industry at a fairly low level 	<ul style="list-style-type: none"> EBITDA pre exceptionals up slightly on the previous year: €359 million (previous year: €335 million) Continued weak demand from the agricultural industry
Specialty Additives	<ul style="list-style-type: none"> EBITDA pre exceptionals well up on the previous year due to the Chemtura businesses acquired in 2017 and synergies 	<ul style="list-style-type: none"> EBITDA pre exceptionals well up on the previous year: €343 million (previous year: €267 million) Development resulted primarily from the successful integration of the acquired Chemtura businesses
Performance Chemicals	<ul style="list-style-type: none"> Business development on a par with the previous year 	<ul style="list-style-type: none"> EBITDA pre exceptionals significantly lower than expected: €187 million (previous year: €252 million) Development primarily driven by deteriorated market environment for leather chemicals and downturn in the construction industry
Engineering Materials	<ul style="list-style-type: none"> Slight improvements in business development 	<ul style="list-style-type: none"> EBITDA pre exceptionals well up on the previous year: €267 million (previous year: €219 million) High-performance plastics business exceeds expectations significantly
Reconciliation	<ul style="list-style-type: none"> Earnings on a par with the previous year 	<ul style="list-style-type: none"> EBITDA pre exceptionals around the previous year's level: minus €140 million (previous year: minus €148 million)
Raw material prices	<ul style="list-style-type: none"> Volatile raw material prices with a moderate increase overall 	<ul style="list-style-type: none"> Still volatile and above the prior-year level
Capital expenditures		
Cash outflows for capital expenditures	<ul style="list-style-type: none"> Around €450 million 	<ul style="list-style-type: none"> €497 million More project investments in nearly all segments

In the Combined Management Report for fiscal year 2017, we predicted that EBITDA pre exceptionals would be slightly higher in 2018 than in the previous year (€925 million). This forecast took the expected cost reductions, synergies from the acquisition of Chemtura and earnings contributions of the businesses acquired in 2017 into account. We specified our expectation over the course of fiscal year 2018 to an increase in EBITDA pre exceptionals at the upper end of a range from 5% to 10% compared to the previous year's figure. The actual result of €1,016 million exceeded the previous year's figure by around 10%.

We had expected net income of LANXESS AG in the reporting year to be substantially higher than in the previous year. Largely due to a sharp rise in income from affiliated companies, which was influenced in particular by effects from the sale of ARLANXEO, net income totaled €85 million after €23 million in the prior-year period.

BUSINESS PERFORMANCE OF THE LANXESS GROUP

- › LANXESS successfully completes sale of its 50% interest in ARLANXEO
- › Strong operating development of the Advanced Intermediates, Specialty Additives and Engineering Materials segments
- › Chemtura business units acquired in the previous year have significantly positive impact on sales and earnings
- › Sales up on previous year, rising by 10.2% to €7,197 million
- › Improvement of EBITDA pre exceptionals by 9.8% to €1,016 million
- › Earnings per share from continuing operations pre exceptionals and amortization of intangible assets increased from €3.84 to €4.45

Key Financial Data

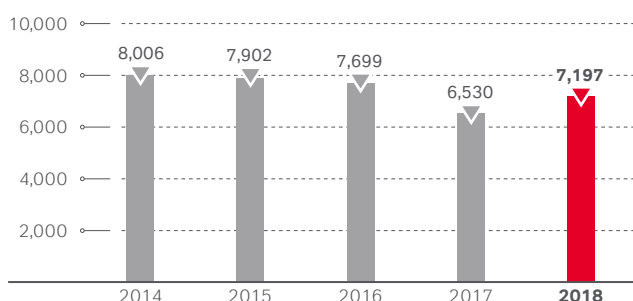
€ million	2017	2018	Change %
Sales	6,530	7,197	10.2
Gross profit	1,734	1,834	5.8
EBITDA pre exceptionals	925	1,016	9.8
EBITDA margin pre exceptionals	14.2%	14.1%	–
EBITDA	709	935	31.9
Operating result (EBIT) pre exceptionals	558	595	6.6
Operating result (EBIT)	299	504	68.6
EBIT margin	4.6%	7.0%	–
Financial result	(80)	(114)	(42.5)
Income before income taxes	219	390	78.1
Net income from continuing operations	60	277	> 100
Net income from discontinued operations	27	154	> 100
Net income	87	431	> 100
Earnings per share (€)	0.95	4.71	> 100
Earnings per share from continuing operations adjusted for exceptional items and amortization of intangible assets (€)	3.84	4.45	15.9

Sales and earnings

In the reporting period, LANXESS Group sales rose by €667 million (10.2%) from €6,530 million in the previous year to €7,197 million. This performance was influenced, in particular, by the sales contribution from the Chemtura businesses acquired in 2017 as well as the contribution from the U.S. phosphorus additives business acquired from the Belgian chemicals group Solvay in February 2018. The adjustment of selling prices driven by raw material prices also had a positive effect on sales. Overall, portfolio effects led to a 7.1% sales increase and higher selling prices to a 4.2% sales increase. By contrast, adverse exchange rate effects in the first half of the year, especially for the U.S. dollar, saw sales decline by 2.0% overall. Increased volumes had a slightly positive impact on sales performance. The initial application of IFRS 15 "Revenue from Contracts with Customers" as of January 1, 2018, had no material effects on sales.

Group Sales

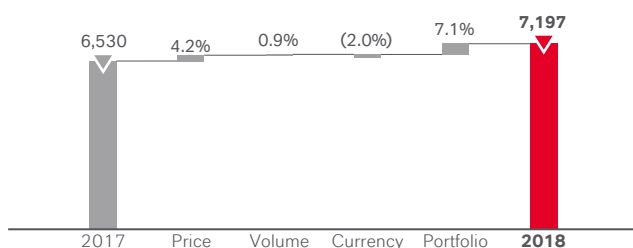
€ million



Figures from 2017 not including ARLANXEO

Effects on Sales

€ million/%

**Sales by Segment**

€ million	2017	2018	Change %	Pro-portion of Group sales %
Advanced Intermediates	1,975	2,207	11.7	30.7
Specialty Additives	1,611	1,980	22.9	27.5
Performance Chemicals	1,439	1,349	(6.3)	18.7
Engineering Materials	1,366	1,576	15.4	21.9
Reconciliation	139	85	(38.8)	1.2
	6,530	7,197	10.2	100.0

Order book status

Most of our business is not subject to long-term agreements on fixed volumes or prices. Instead, our business is characterized by long-standing relationships with customers and revolving master agreements. Our activities are focused on demand-driven orders with relatively short lead times which do not provide a basis for long-term forward-looking statements about our capacity utilization or volumes. The business is managed primarily on the basis of regular Group-wide forecasts of the Group's operating result. For additional information, please see "[Company-specific leading indicators](#)" in this Management Report.

Any disclosure of the Group's order book status at a given reporting date therefore would not be indicative of the Group's short- or medium-term earning power. For this reason, no such disclosure is made in this report.

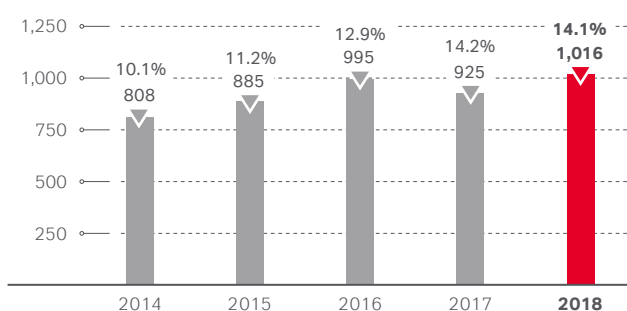
Gross profit

The cost of sales increased by 11.8%, to €5,363 million, which was slightly disproportionate compared with sales. The integration of the Chemtura businesses acquired in 2017 and of the U.S. phosphorous chemicals business acquired from Solvay in February 2018 meant an absolute increase in the cost of sales. In addition, higher procurement prices for raw materials and energy as well as higher volumes led to higher costs. By contrast, the movement in exchange rates, particularly of the U.S. dollar, had a positive effect on our manufacturing costs. Capacity utilization of 82% was on a par with the previous year.

Gross profit was €1,834 million, up by €100 million or 5.8% against the previous year. This increase resulted in particular from the acquired Chemtura businesses and phosphorous chemicals business. Higher procurement prices for raw materials and energy were also successfully passed on to the market by adjusting selling prices. The change in exchange rates had an inverse impact on earnings performance. The gross profit margin was accordingly lower at 25.5% compared to 26.6%.

EBITDA pre exceptionals and operating result (EBIT)**EBITDA and EBITDA Margin Pre Exceptionals**

€ million



Figures from 2017 not including ARLANXEO

Our operating result before depreciation, amortization, write-downs and reversals (EBITDA) pre exceptionals increased by €91 million, or 9.8%, to €1,016 million in fiscal year 2018, after €925 million in the previous year. Higher procurement prices for raw materials and energy were successfully and promptly passed on to customers in all segments except Performance Chemicals by adjusting selling prices. The positive overall earnings performance at Group level primarily benefited from the operating strength of the Advanced Intermediates and Engineering Materials segments. The earnings of Specialty Additives were significantly improved by the successful integration of Chemtura. In contrast, earnings in the Performance Chemicals segment were diminished by the weak chrome ore business, lower sales volumes due to strikes in South Africa and as a result of the closure of Zárate. Earnings performance was also curbed by lower sales volumes in the Inorganic Pigments business unit, which supplies the construction industry, and the sale of the subsidiary International Dioxide Inc., North Kingstown, U.S., in the previous year. The significant change in exchange rates had a negative impact on earnings in all segments. Owing especially to portfolio effects and higher freight rates, selling expenses rose by 8.5% to €826 million. Research and development expenses increased to €118 million after €103 million in the previous year, largely due to portfolio effects. General administration expenses fell by €19 million to €307 million due primarily to the reclassification of proceeds and equally high costs in connection with administrative services for ARLANXEO to other operating income and expenses. The Group EBITDA margin pre exceptionals came in at 14.1%, against 14.2% in the previous year.

EBITDA Pre Exceptionals by Segment

€ million	2017	2018	Change %
Advanced Intermediates	335	359	7.2
Specialty Additives	267	343	28.5
Performance Chemicals	252	187	(25.8)
Engineering Materials	219	267	21.9
Reconciliation	(148)	(140)	5.4
	925	1,016	9.8

The reconciliation of EBITDA pre exceptionals to the operating result (EBIT) was as follows:

Reconciliation of EBITDA Pre Exceptionals to Operating Result (EBIT)

€ million	2017	2018	Change %
EBITDA pre exceptionals	925	1,016	9.8
Depreciation and amortization/reversals of impairment charges	(410)	(431)	(5.1)
Exceptional items in EBITDA	(216)	(81)	62.5
Operating result (EBIT)	299	504	68.6

The operating result (EBIT) of the Group totaled €504 million compared with €299 million in the previous year. The increase is primarily attributable to the considerable €168 million decline in exceptionals to €91 million (previous year: €259 million). Depreciation, amortization and write-downs on intangible assets and property, plant and equipment amounted to €432 million (previous year: €411 million) and included depreciation and amortization of the former Chemtura business units and the new production lines of the Saltigo business unit commissioned in January 2018 and write-downs of €15 million, €10 million of which were exceptional items relating to the intended closure of pigment production at the Jinshan site in Shanghai, China. Write-downs for the previous year amounted to €49 million, €43 million of which were exceptional items, mainly relating to the discontinuation of additive production at the Ankerweg site in Amsterdam, Netherlands. On the other hand, reversals of write-downs totaling €1 million (previous year: €1 million) were recognized.

Other operating result, which is the balance between other operating income and expenses, amounted to minus €79 million compared with minus €245 million in the previous year. Adjusted for exceptional items, it came to €12 million, which was €2 million lower than in the previous year.

There were net negative exceptional items of €91 million in the reporting year. They resulted from negative exceptional items of €107 million and positive exceptional items of €16 million, with €1 million not impacting EBITDA. The negative exceptional items, of which €96 million impacted EBITDA and €11 million did not impact EBITDA, largely related to expenses in connection with the strategic realignment of the LANXESS Group, digitalization projects, and the intended closure of production at the Jinshan site in Shanghai, China. The positive exceptional items were primarily in connection with the discontinuation of production at the Ankerweg site in Amsterdam, Netherlands. In the previous year, net negative exceptional items of €259 million resulted from negative exceptional items of €267 million and positive exceptional items of €8 million. The exceptional items mainly related to the strategic realignment of the Group and the optimization of the production network.

Please see “Notes on EBIT and EBITDA (Pre Exceptionals)” for details about exceptional items.

Reconciliation of EBIT to Net Income

€ million	2017	2018	Change %
Operating result (EBIT)	299	504	68.6
Income from investments accounted for using the equity method	0	0	–
Net interest expense	(80)	(69)	13.8
Other financial income and expense	0	(45)	< (100)
Financial result	(80)	(114)	(42.5)
Income before income taxes	219	390	78.1
Income taxes	(159)	(118)	25.8
Income after income taxes from continuing operations	60	272	> 100
Income after income taxes from discontinued operations	64	251	> 100
Income after income taxes	124	523	> 100
Income attributable to non-controlling interests	37	92	> 100
Net income from continuing operations	60	277	> 100
Net income from discontinued operations	27	154	> 100
Net income	87	431	> 100

Financial result

The financial result came in at minus €114 million in fiscal year 2018, compared with minus €80 million for the previous year. Primarily due to the refinancing of a bond that matured in May 2018 on more favorable terms, net interest result improved by €11 million year-on-year to minus €69 million. As in the previous year, companies accounted for using the equity method did not generate an earnings contribution. The other financial result was minus €45 million, compared with €0 million in the previous year. The reduction in earnings primarily resulted from the payment of a reduced profit distribution by Currenta GmbH & Co. OHG, Leverkusen, Germany.

Income before income taxes

Due to the development of the operating result, income before income taxes improved by €171 million to €390 million.

Income taxes

In fiscal year 2018, tax expense amounted to €118 million, compared with €159 million the year before. The Group's tax rate was 30.3%, after 72.6% in the previous year. The high tax

rate of the previous year largely resulted from the U.S. tax reform legislation passed in December 2017, especially the one-off taxation of retained earnings of foreign investments held by our U.S. companies.

Net income

Net income for the reporting year amounted to €431 million, of which €277 million was attributable to continuing operations. Of the net income for the previous year of €87 million, €60 million was allocated to continuing operations. The previous year was influenced significantly by exceptional items associated with the acquisition of Chemtura, the centralization of the Group's international chrome value chain in South Africa, the related closure of the Zárate production site in Argentina, and the intended discontinuation of production at the Ankerweg site in Amsterdam, Netherlands. In 2018, €92 million of net income was attributable to non-controlling interests, compared with €37 million in the previous year, which resulted almost exclusively from Saudi Aramco's interest in ARLANXEO. Net income from discontinued operations increased from €27 million to €154 million and resulted mainly from the accounting in accordance with IFRS 5, according to which the intangible assets and property, plant and equipment of ARLANXEO are not subject to any further amortization or depreciation. In addition, a positive impact was made by the gain from the sale of the 50% interest in ARLANXEO of €90 million.

Earnings per share (from continuing operations)/earnings per share from continuing operations adjusted for exceptional items and amortization of intangible assets

Earnings per share (or earnings per share from continuing operations) are calculated by dividing net income (or net income from continuing operations) by the weighted average number of LANXESS shares in circulation during the reporting period. Earnings per share were €4.71, well above the €0.95 recorded in the previous year. Earnings per share from continuing operations were €3.03 against €0.66 in the previous year.

We also calculate earnings per share from continuing operations pre exceptionals and amortization of intangible assets, which are not defined by International Financial Reporting Standards. This value was calculated from the earnings per share from continuing operations adjusted for exceptional items, amortization of intangible assets and attributable tax effects.

Earnings per share from continuing operations adjusted for exceptional items and amortization of intangible assets were €4.45 against €3.84 in the previous year.

Reconciliation to Earnings per Share from Continuing Operations Adjusted for Exceptional Items and Amortization of Intangible Assets

€ million	2017	2018
Net income from continuing operations	60	277
Exceptional items ¹⁾	259	91
Amortization of intangible assets/ reversal of impairment charges ¹⁾	63	85
Income taxes ¹⁾	(31)	(46)
Net income from continuing operations adjusted for exceptional items and amortization of intangible assets	351	407
Number of shares outstanding	91,522,936	91,522,936
Earnings per share from continuing operations adjusted for exceptional items and amortization of intangible assets (€)	3.84	4.45

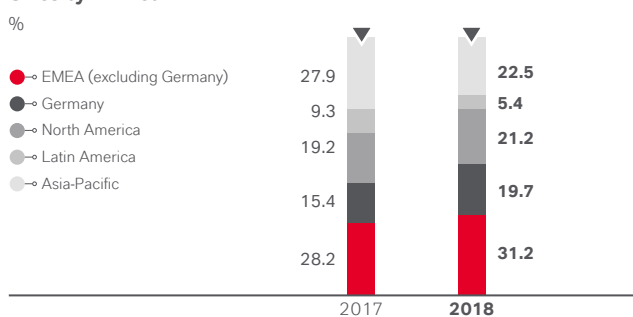
1) Excluding items attributable to non-controlling interests

BUSINESS TRENDS BY REGION

Sales by Market

	2017		2018		Change	
	€ million	%	€ million	%		%
EMEA (excluding Germany)	2,043	28.2	2,245	31.2	9.9	
Germany	1,249	15.4	1,414	19.7	13.2	
North America	1,292	19.2	1,524	21.2	18.0	
Latin America	405	9.3	392	5.4	(3.2)	
Asia-Pacific	1,541	27.9	1,622	22.5	5.3	
	6,530	100.0	7,197	100.0	10.2	

Sales by Market



In the reporting period, portfolio effects resulted primarily from the Chemtura businesses acquired in 2017 and to a lesser extent from the acquisition of the U.S. phosphorus additives business from the Belgian chemicals group Solvay in February 2018.

EMEA (excluding Germany)

Sales in the EMEA region (excluding Germany) rose by €202 million, or 9.9%, to €2,245 million. After adjustment for minor currency and portfolio effects, sales were up by 4.7%. The Engineering Materials segment reported growth in sales in the low-double-digit-percentage range. The Advanced Intermediates segment likewise achieved a sales increase, more than offsetting the decline in the Specialty Additives segment. The Performance Chemicals segment achieved the same sales level as in the previous year. The positive development in the region resulted from the business performance in Switzerland, Belgium and Spain. Slightly countervailing was the demand trend in the Netherlands, Italy and France.

Germany

In Germany, the Group generated sales of €1,414 million in fiscal year 2018, up by €165 million, or 13.2%, on the previous year. After adjustment for minor currency effects and portfolio effects, sales were up by 10.8%. All segments saw positive business development, which was driven by Advanced Intermediates and Performance Chemicals.

North America

Sales in this region came to €1,524 million, up by €232 million, or 18.0%, on the previous year. After adjustment for currency effects and appreciable portfolio effects, sales were up by 7.3%. All segments saw positive business development, which was driven by Specialty Additives and Advanced Intermediates.

Latin America

In the Latin America region, sales fell by €13 million, or 3.2%, to €392 million. After adjustment for minor currency and portfolio effects, the decline was 2.0%. This business performance was mainly driven by the Performance Chemicals segment, which posted a percentage fall in sales in the low double-digits. The Specialty Additives segment also posted a sales decline. The business performance of the two other segments could not compensate for this negative trend. This situation in the region was hampered by the development in Brazil and Argentina, while Mexico provided positive impetus.

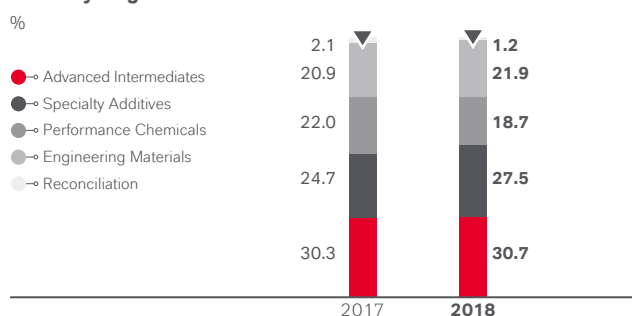
Asia-Pacific

Sales in the Asia-Pacific region increased by €81 million, or 5.3%, to €1,622 million in fiscal year 2018. Adjusted for portfolio and currency effects, sales rose by 1.1%. This business performance was mainly driven by the Advanced Intermediates segment, which posted a rise in sales in the low double-digits. In contrast, business declined in the Performance Chemicals segment in particular. India and Japan made significant positive contributions in this region, largely offset by the development in China and Singapore.

SEGMENT INFORMATION

- Advanced Intermediates: Strong operating business performance despite a still challenging market environment for agrochemicals
- Specialty Additives: Significant sales and earnings increase from the successful integration of the additives business acquired in the previous year
- Performance Chemicals: Sales and earnings fall short of a strong previous year due to weak leather and construction industries
- Engineering Materials: Significant improvement in earnings as a result of profitable business with plastics for lightweight solutions

Sales by Segment



Advanced Intermediates

Overview of Key Data

	2017		2018		Change %
	€ million	Margin %	€ million	Margin %	
Sales	1,975		2,207		11.7
EBITDA pre exceptionals	335	17.0	359	16.3	7.2
EBITDA	328	16.6	359	16.3	9.5
Operating result (EBIT) pre exceptionals	218	11.0	232	10.5	6.4
Operating result (EBIT)	211	10.7	232	10.5	10.0
Cash outflows for capital expenditures	146		155		6.2
Depreciation and amortization	117 ¹⁾		127		8.5
Employees as of Dec. 31	3,661		3,687		0.7

1) Net of reversals of write-downs of €1 million

Our Advanced Intermediates segment recorded sales of €2,207 million in fiscal year 2018, 11.7% or €232 million more than in the previous year. In both of the segment's business units, higher selling prices were realized than in the previous year and led to a 7.8% increase in sales overall. Higher volumes raised sales by 3.6%. This was especially due to the good demand in nearly all end markets in the Advanced Industrial Intermediates business unit. Sales volumes in the Saltigo business unit were at prior-year level as a result of continued weak demand from the agrochemical industry. In addition, the integration of the organometallics operations acquired in the previous year into the Advanced Industrial Intermediates business unit had a positive effect of 2.2% on sales. Exchange rate movements had a negative impact on sales at 1.9%. Sales in all regions were above prior-year levels.

EBITDA pre exceptionals in the Advanced Intermediates segment was €359 million, €24 million, or 7.2%, above the prior-year level. The Advanced Industrial Intermediates business unit successfully passed on increased procurement prices for raw materials and energy to customers by adjusting selling prices. In addition, higher sales volumes, especially in this business unit, had a positive effect on earnings. The integration of the organometallics business acquired in the previous year into the Advanced Industrial Intermediates business unit had only a minor effect on earnings. Disadvantageous exchange rate developments had a negative impact on earnings. The EBITDA margin pre exceptionals was 16.3%, down from 17.0% in the previous year.

No exceptional items were recorded in the segment in fiscal year 2018. In the previous year, negative exceptional items of €7 million were incurred, which fully impacted EBITDA. Please see “Notes on EBIT and EBITDA (Pre Exceptionals)” for details.

Specialty Additives

Overview of Key Data

	2017		2018		Change %
	€ million	Margin %	€ million	Margin %	
Sales	1,611		1,980		22.9
EBITDA pre exceptional	267	16.6	343	17.3	28.5
EBITDA	192	11.9	340	17.2	77.1
Operating result (EBIT) pre exceptional	167	10.4	207	10.5	24.0
Operating result (EBIT)	56	3.5	204	10.3	> 100
Cash outflows for capital expenditures	83		141		69.9
Depreciation and amortization	136		136 ¹⁾		0.0
Employees as of Dec. 31	2,936		2,953		0.6

1) Net of reversals of write-downs of €1 million

Our Specialty Additives segment recorded sales of €1,980 million in fiscal year 2018, 22.9% or €369 million more than in the previous year. The increase in sales was mainly attributable to the integration of the additives business acquired from Chemtura in the previous year. The U.S. phosphorus additives business acquired from the Belgian chemicals group Solvay in the first quarter of 2018 also made a positive sales contribution. Overall, portfolio effects led to an increase in sales of 23.2%. Higher selling prices also added 2.5% to the rise in sales, with contributions from both business units. The negative exchange rate trend in both business units decreased sales in this segment by 2.1%. Sales decreased by 0.7% as a result of lower volumes. The sales volumes of both business units were down slightly on the previous year, with positive volume development in the Additives business unit being more than outweighed by effects from the closure of former Chemtura sites. Sales in all regions were above prior-year levels.

EBITDA pre exceptional for the Specialty Additives segment was €343 million, a significant €76 million, or 28.5%, above the prior-year level. This strong earnings performance was primarily the result of the successful integration of the additives business acquired in the previous year and an earnings contribution from the phosphorus additives business acquired in the first quarter. Higher procurement prices for raw materials and energy were also successfully passed on to the customers by adjusting selling prices. By contrast, adverse currency effects and lower sales volumes in both business units resulted in an earnings decline. The EBITDA margin pre exceptional improved from 16.6% in the previous year to 17.3%.

In fiscal year 2018, net negative exceptional items amounted to €3 million, resulting from negative exceptional items of €15 million and positive exceptional items of €12 million. Of the negative exceptional items, which mainly related to the strategic realignment of the LANXESS Group, €14 million impacted EBITDA and €1 million did not. Of the positive exceptional items, which related to the discontinuation of production at the Ankerweg site in Amsterdam, Netherlands, €11 million impacted EBITDA and €1 million did not. In the previous year, negative exceptional items in the segment totaled €111 million, of which €75 million impacted EBITDA and €36 million did not. Please see “Notes on EBIT and EBITDA (Pre Exceptionals)” for details.

Performance Chemicals

Overview of Key Data

	2017		2018		Change %
	€ million	Margin %	€ million	Margin %	
Sales	1,439		1,349		(6.3)
EBITDA pre exceptional	252	17.5	187	13.9	(25.8)
EBITDA	190	13.2	184	13.6	(3.2)
Operating result (EBIT) pre exceptional	176	12.2	112	8.3	(36.4)
Operating result (EBIT)	108	7.5	99	7.3	(8.3)
Cash outflows for capital expenditures	74		76		2.7
Depreciation and amortization	82		85		3.7
Employees as of Dec. 31	3,880		3,786		(2.4)

Sales in the Performance Chemicals segment amounted to €1,349 million, 6.3% below the prior-year figure. Shifts in exchange rates had a negative effect on all business units of the segment and diminished sales by 2.8% in total. The sale of the subsidiary International Dioxide Inc., North Kingstown, U.S., of the Material Protection Products business unit in the previous year also had a negative effect of 1.9% on sales. In particular due to the shutdown of production of the Leather business unit in Argentina at the end of 2017, the strikes in our chrome ore mine in South Africa in the second half of 2018 and lower sales volumes in the Inorganic Pigments business unit, which supplies the construction industry, sales decreased by 1.7% as a result of volumes. The Liquid Purification Technologies and Material Protection Products business units recorded higher volumes. The selling prices of the Material Protection Products business unit were slightly above, the selling prices of the Inorganic Pigments business units slightly below the level of the previous year and had next to no influence on sales overall. While higher sales were achieved in Germany, the segment posted constant or lower sales in all other regions.

The Performance Chemicals segment generated EBITDA pre exceptionals of €187 million, a decrease of €65 million or 25.8% on the previous year. Increased raw material and energy costs reduced the segment's earnings. Earnings were also diminished by the weak chrome ore business in the Leather business unit, lower sales volumes in the Inorganic Pigments business unit and the sale of International Dioxide Inc. in the previous year. The trend in earnings was intensified by disadvantageous currency effects. Earnings were improved by higher volumes in our Liquid Purification Technologies and Material Protection Products business units. The EBITDA margin pre exceptionals came in at 13.9%, against 17.5% a year ago.

In the reporting year, negative exceptional items totaling €13 million were attributable to the segment, of which €3 million impacted EBITDA and €10 million did not impact EBITDA. They primarily related to the planned closure of the Inorganic Pigments business unit's production line at the Jinshan site in Shanghai, China. In the previous year, net negative exceptional items of €68 million resulted from negative exceptional items of €74 million and positive exceptional items of €6 million, with the latter fully impacting EBITDA. Of the negative exceptional items, €68 million impacted EBITDA and €6 million did not impact EBITDA. Please see "[Notes on EBIT and EBITDA \(Pre Exceptionals\)](#)" for details.

Engineering Materials

Overview of Key Data

	2017		2018		Change %
	€ million	Margin %	€ million	Margin %	
Sales	1,366		1,576		15.4
EBITDA pre exceptionals	219	16.0	267	16.9	21.9
EBITDA	207	15.2	266	16.9	28.5
Operating result (EBIT) pre exceptionals	164	12.0	206	13.1	25.6
Operating result (EBIT)	151	11.1	205	13.0	35.8
Cash outflows for capital expenditures	68		76		11.8
Depreciation and amortization	56		61		8.9
Employees as of Dec. 31	1,976		2,105		6.5

Sales in our Engineering Materials segment increased by 15.4% year-on-year to €1,576 million in fiscal year 2018. Higher selling prices and increased volumes added 5.9% and 5.3% respectively to the rise in sales, contributed by the High Performance Materials business unit in particular. In addition, the increase in sales was the result of the contribution from the urethanes business acquired in the previous year, which resulted in a 5.6% rise in sales. Exchange rates had a negative impact on sales of 1.4%. Sales in all regions were above prior-year levels.

EBITDA pre exceptionals in the Engineering Materials segment rose by a significant €48 million, or 21.9%, to €267 million. Especially in the High Performance Materials business unit, higher procurement prices for raw materials were successfully passed on to customers by adjusting selling prices. The improvement in earnings was also due to the contribution from the urethanes business acquired in the previous year and higher volumes. However, the change in exchange rates had a negative impact on earnings. The EBITDA margin pre exceptionals for the segment improved from 16.0% to 16.9%.

In fiscal year 2018, negative exceptional items in the segment that impacted EBITDA amounted to €1 million. In the previous year, negative exceptional items incurred in the segment totaled €13 million, of which €12 million impacted EBITDA and €1 million did not. Please see "[Notes on EBIT and EBITDA \(Pre Exceptionals\)](#)" for details.

Reconciliation

Overview of Key Data

€ million	2017	2018	Change %
Sales	139	85	(38.8)
EBITDA pre exceptionals	(148)	(140)	5.4
EBITDA	(208)	(214)	(2.9)
Operating result (EBIT) pre exceptionals	(167)	(162)	3.0
Operating result (EBIT)	(227)	(236)	(4.0)
Cash outflows for capital expenditures	26	49	88.5
Depreciation and amortization	19	22	15.8
Employees as of Dec. 31	2,830	2,910	2.8

EBITDA pre exceptionals for the reconciliation came to minus €140 million, compared with minus €148 million in the previous year. This change was mainly due to results from hedging currency risks. There were net negative exceptional items of €74 million in the reconciliation in the reporting year, which fully impacted EBITDA. They resulted from negative exceptional items of €78 million and positive exceptional items of €4 million. The exceptional items largely resulted from expenses relating to the strategic realignment of the LANXESS Group and digitalization projects. In the previous year, net negative exceptional items of €60 million, which fully impacted EBITDA, resulted from negative exceptional items of €62 million and positive exceptional items of €2 million. Please see "Notes on EBIT and EBITDA (Pre Exceptionals)" for details.

NOTES ON EBIT AND EBITDA (PRE EXCEPTIONALS)

In order to better assess our operational business and to steer earning power at Group level as well as for the individual segments, we additionally calculate the earnings indicators EBITDA, and EBITDA and EBIT pre exceptionals, none of which are defined by International Financial Reporting Standards. These indicators are viewed as supplementary to the data prepared according to IFRS; they are not a substitute.

Reconciliation to EBIT/EBITDA

€ million	EBIT 2017	EBIT 2018	EBITDA 2017	EBITDA 2018
EBIT/EBITDA pre exceptionals	558	595	925	1,016
Advanced Intermediates	(7)	0	(7)	0
Strategic realignment ¹⁾	(4)	0	(4)	0
Other	(3)	0	(3)	0
Specialty Additives	(111)	(3)	(75)	(3)
Strategic realignment ¹⁾	(63)	(11)	(56)	(10)
Optimization of the production network ²⁾	(48)	8	(19)	7
Performance Chemicals	(68)	(13)	(62)	(3)
Optimization of the production network ³⁾	(73)	(13)	(67)	(3)
Other	5	0	5	0
Engineering Materials	(13)	(1)	(12)	(1)
Strategic realignment ¹⁾	(13)	(1)	(12)	(1)
Reconciliation	(60)	(74)	(60)	(74)
Strategic realignment	(28)	(17)	(28)	(17)
Digitalization, M&A expenses and other	(32)	(57)	(32)	(57)
Total exceptional items	(259)	(91)	(216)	(81)
EBIT/EBITDA	299	504	709	935

1) The exceptional items mainly related to the integration of Chemtura. The exceptional items of the previous year also related to the purchase price allocation of Chemtura.

2) The exceptional items essentially related to the consolidation of the production of lubricant precursors and the discontinuation of production at the Ankerweg site in Amsterdam, Netherlands.

3) The exceptional items essentially related to the intended closure of production at the Jinshan site in Shanghai, China. The exceptional items of the previous year were connected to the bundling of the Group's international chromium value chain in South Africa and the closure of the Zárate site in Argentina in the fourth quarter of 2017.

EBITDA is calculated from the operating result (EBIT) by adding back depreciation and impairments of property, plant and equipment as well as amortization and impairments of intangible assets and subtracting reversals of impairment charges on property, plant, equipment and intangible assets.

EBIT pre exceptionals and *EBITDA pre exceptionals* are EBIT and EBITDA before exceptional items.

STATEMENT OF FINANCIAL POSITION AND FINANCIAL CONDITION

Assets and liabilities

- › Total assets decreased due primarily to the sale of the 50% interest in ARLANXEO
- › Significant decline in net financial liabilities after deduction of time deposits and securities available for sale of €2,252 million to €1,381 million
- › Equity ratio down from 32.8% to 31.9%

Structure of the Statement of Financial Position

	Dec. 31, 2017		Dec. 31, 2018		Change
	€ million	%	€ million	%	
ASSETS					
Non-current assets	6,454	62.0	4,786	55.1	(25.8)
Current assets	3,957	38.0	3,901	44.9	(1.4)
Total assets	10,411	100.0	8,687	100.0	(16.6)
EQUITY AND LIABILITIES					
Equity (including non-controlling interests)	3,413	32.8	2,773	31.9	(18.8)
Non-current liabilities	4,540	43.6	4,395	50.6	(3.2)
Current liabilities	2,458	23.6	1,519	17.5	(38.2)
Total equity and liabilities	10,411	100.0	8,687	100.0	(16.6)

Prior-year figures restated. For background information, please see the "Restatement of prior-year figures" section of the Notes to the Consolidated Financial Statements.

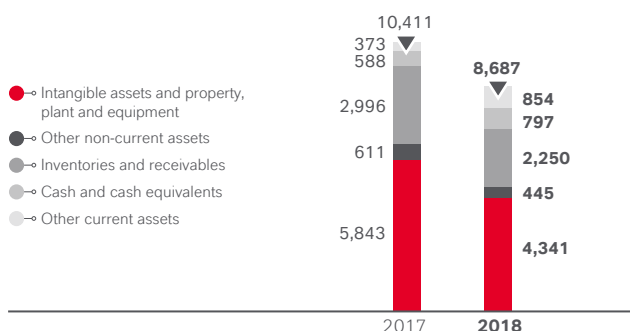
Structure of the statement of financial position

As of December 31, 2018, the LANXESS Group's total assets stood at €8,687 million, €1,724 million or 16.6% less than at the end of the previous year. This development was attributable in particular to the deconsolidation of ARLANXEO.

Non-current assets decreased by €1,668 million to €4,786 million. Intangible assets and property, plant and equipment fell by €1,502 million to €4,341 million here. The latter declined chiefly as a result of the deconsolidation of ARLANXEO. For further information, please see the "Companies consolidated" section of the Notes.

Structure of the Statement of Financial Position – Assets

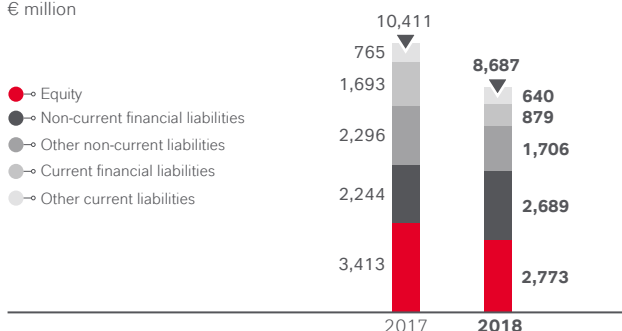
€ million



Prior-year figures restated. For background information, please see the "Restatement of prior-year figures" section of the Notes to the Consolidated Financial Statements.

Structure of the Statement of Financial Position – Equity and Liabilities

€ million



Prior-year figures restated. For background information, please see the "Restatement of prior-year figures" section of the Notes to the Consolidated Financial Statements.

Cash outflows for purchases of property, plant and equipment and intangible assets amounted to €497 million, up on the prior-year figure of €397 million. Net of reversals of write-downs of €1 million (previous year: €1 million), depreciation rose by €21 million from the previous year's figure of €410 million to €431 million. The carrying amount of investments accounted for using the equity method was €0 million, the same as in the previous year. At €287 million, deferred tax assets were down €155 million on the previous year. The ratio of non-current assets to total assets decreased from 62.0% to 55.1% on December 31, 2018.

Current assets decreased by €56 million, or 1.4%, compared with December 31, 2017, to €3,901 million. This was due among other reasons to the decline in trade receivables by €413 million, or 31.4%, to €903 million. At 46.0, days of sales outstanding (DSO) were below the previous year's figure of 50.7 days. The decline in receivables was influenced on the one hand by the disposal of ARLANXEO and on the other hand by the application of IFRS 15 from January 1, 2018. Inventories were down by €333 million, or 19.8%, to €1,347 million. At 68.6, days of sales in inventory (DSI) were above the previous year's figure of 64.7 days. The decline in inventories was driven by the disposal of ARLANXEO, with an opposite effect from the application of IFRS 15. The base effects in working capital that arose as a result of IFRS 15 had corresponding effects on the key performance indicators DSI and DSO. Current financial assets rose from €7 million to €598 million in the reporting period. The rise was due to the investment of the cash funds from the sale of the 50% interest in ARLANXEO in time deposits and securities available for sale. Cash and cash equivalents increased from €538 million to €797 million, primarily due

to the investment in time deposits. The disposal of ARLANXEO's cash and cash equivalents had the opposite effect. Near-cash assets amounted to €0 million at the end of the reporting year, compared with €50 million at the end of the previous year. The ratio of current assets to total assets was 44.9%, compared with 38.0% on December 31, 2017.

Equity fell by €640 million, or 18.8%, to €2,773 million compared with December 31, 2017. The decline resulted primarily from effects from the deconsolidation of ARLANXEO and dividend payments, which were offset by positive comprehensive income. The ratio of equity to the Group's total assets was 31.9% as of December 31, 2018, compared with 32.8% as of December 31, 2017.

Non-current liabilities fell by €145 million to €4,395 million as of December 31, 2018. Compared with the end of 2017, provisions for pensions and other post-employment benefits decreased by €407 million to €1,083 million. The decline resulted primarily from the sale of the 50% interest in ARLANXEO. In addition, the German pension assets were increased by €200 million, which further reduced the recognized value of the pension obligations. Moreover, other non-current provisions fell from €460 million to €337 million. The increase in other non-current financial liabilities

by €444 million to €2,686 million as of December 31, 2018, was mainly due to the issue of a new bond of €500 million maturing in May 2025. The ratio of non-current liabilities to total assets was 50.6%, compared with 43.6% as of December 31, 2017.

Current liabilities came to €1,519 million, down by €939 million, or 38.2%, compared with December 31, 2017. Other current financial liabilities fell from €633 million to €59 million, primarily due to the repayment of a bond that matured in May 2018 in the amount of €500 million. In addition, other current provisions fell by €60 million to €465 million. Trade payables declined by €253 million to €795 million. This decline was primarily attributable to the deconsolidation of ARLANXEO. The ratio of current liabilities to total assets was 17.5% as of December 31, 2018, after 23.6% at the end of 2017.

At €1,923 million, net financial liabilities were down on the figure as at December 31, 2017, of €2,252 million. After deduction of time deposits and securities available for sale, they declined to €1,381 million. The funds invested in time deposits and securities came from the purchase price payment received from Saudi Aramco for the 50% interest in ARLANXEO.

The Group's key ratios developed as follows:

Ratios

%		2014	2015	2016	2017 ²⁾	2018
Equity ratio	Equity ¹⁾ Total assets	29.8	32.2	37.7	32.8	31.9
Non-current asset ratio	Non-current assets Total assets	56.6	57.9	45.8	62.0	55.1
Asset coverage I	Equity ¹⁾ Non-current assets	52.7	55.6	82.5	52.9	57.9
Asset coverage II	Equity ¹⁾ and non-current liabilities Non-current assets	136.7	125.8	182.4	123.2	149.8
Funding structure	Current liabilities Total liabilities	32.3	40.0	26.6	35.1	25.7

1) Equity includes non-controlling interests.

2) Figures restated. For background information, please see the "Restatement of prior-year figures" section of the Notes to the Consolidated Financial Statements.

Capital expenditures

In 2018, our capital expenditures for property, plant and equipment and intangible assets amounted to €517 million, against €409 million in the previous year. Cash outflows made up €497 million of this total (previous year: €397 million). In the same period, depreciation and amortization totaled €432 million (previous year: €411 million), with depreciation and amortization being mitigated by reversals of write-downs of €1 million (previous year: €1 million). In addition, the figure for depreciation and amortization in 2018 included write-downs of €15 million (previous year: €49 million).

In the reporting year, capital expenditures focused on the following areas:

- › Expansion and maintenance of existing facilities, construction of new facilities
- › Measures to increase plant availability
- › Projects to improve plant safety, enhance quality and comply with environmental protection requirements

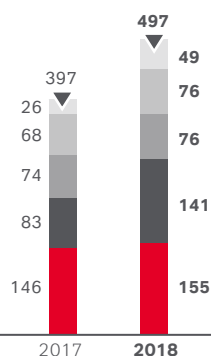
More than one-third of the capital expenditures in 2018 went toward expansion or efficiency improvement measures, while the rest went to maintain existing facilities.

In regional terms, 54% of our capital expenditures in the reporting period were made in Germany, 23% in North America, 15% in the EMEA region (excluding Germany), 6% in Asia-Pacific and 2% in Latin America. Capital expenditures in Germany mostly comprised our investments to increase capacity and modernize facilities in all segments, especially investments in the Saltigo and Advanced Industrial Intermediates business units. Some of the capital expenditures made in the EMEA region (excluding Germany) were used at the site in Antwerp, Belgium, to further optimize production in the context of realignment to improve operational competitiveness. A portion of the capital expenditures in the Asia-Pacific region related to the construction of a new plant for high-performance plastics at the site in Changzhou, China.

Cash Outflows for Capital Expenditures by Segment

€ million

- Advanced Intermediates
- Specialty Additives
- Performance Chemicals
- Engineering Materials
- Reconciliation



Capital expenditures in the Advanced Intermediates segment amounted to €168 million (previous year: €156 million). At €155 million (previous year: €146 million), cash outflows exceeded depreciation and amortization of €127 million (previous year: €117 million). These included cash outflows in connection with the capacity expansion of special-amine production in the Advanced Industrial Intermediates business unit at the Leverkusen site in Germany. In addition, capital expenditures were made in the Advanced Industrial Intermediates business unit at the site in the Uerdingen district of Krefeld, Germany, in order to expand the production of hexanediol.

Capital expenditures of €144 million were made in the Specialty Additives segment (previous year: €84 million). Cash outflows made up €141 million of this total (previous year: €83 million). By contrast, depreciation and amortization stood at €136 million (previous year: €136 million). A significant portion of the capital expenditures went toward the production network for flame retardants in the Additives business unit. In addition, the Rhein Chemie business unit invested in the capacity expansion for dyes of the Macrolex brand. The additional production capacity will be available from the second quarter of 2019.

In the Performance Chemicals segment, capital expenditures came to €79 million (previous year: €75 million), €76 million (previous year: €74 million) of which were cash outflows. By contrast, depreciation and amortization stood at €85 million (previous year: €82 million). For example, the capital expenditures related to the Liquid Purification Technologies business unit's ion exchanger production. There were also various smaller investment projects in the Inorganic Pigments business unit.

In the Engineering Materials segment, capital expenditures totaled €77 million (previous year: €68 million), €76 million (previous year: €68 million) of which were cash outflows. Depreciation and amortization came to €61 million (previous year: €56 million). Some of the capital expenditures in this segment were used in the High Performance Materials business unit for the construction of a new plant for high-performance plastics of the Durethan and Pocan brands at the Changzhou site, China. This compounding facility is set to start production in mid-2019. In addition, the High Performance Materials business unit is investing in a further compounding facility at the site in the Uerdingen district of Krefeld, Germany. From the second half of 2019, it will likewise produce engineering plastics of the Durethan and Pocan brands. The Urethane Systems business unit is also investing in production capacity for pre-polymers at the Porto Feliz site in Brazil.

Financial condition

- › Operating cash flow influenced by increase in net working capital
- › Purchase price from the sale of the 50% interest in ARLANXEO of €1.4 billion received
- › Net cash used in financing activities of €160 million after €545 million in the previous year
- › Liquidity position remains solid

The statement of cash flows shows inflows and outflows of cash and cash equivalents by type of business operation.

Cash Flow Statement

€ million	2017	2018	Change
Income before income taxes	219	390	171
Depreciation and amortization/ reversals of impairment charges	410	431	21
Other items	5	(184)	(189)
Net cash provided by operating activities – continuing operations before change in net working capital	634	637	3
Change in net working capital	(66)	(165)	(99)
Net cash provided by operating activities – continuing operations	568	472	(96)
Net cash (used in) provided by investing activities – continuing operations	(22)	65	87
Net cash used in financing activities – continuing operations	(545)	(160)	385
Change in cash and cash equivalents from continuing operations	1	377	376
Change in cash and cash equivalents from discontinued operations	192	(112)	(304)
Cash and cash equivalents as of December 31	538	797	259
of which continuing operations	266	797	531
of which discontinued operations	272	0	(272)

The following comments on the statement of cash flows relate to LANXESS's continuing operations.

Cash provided by operating activities, before changes in net working capital, increased by €3 million to €637 million in fiscal year 2018. The starting point was income before income taxes of €390 million, which was up €171 million year-on-year. Net of reversals of write-downs, the depreciation and amortization of €431 million were up €21 million on the previous year's figure of €410 million. The other items in the reporting year included tax payments, effects from currency hedging of intercompany loans, and cash outflows for variable compensation as well as restructuring measures.

The change in net working capital against December 31, 2017, resulted in a cash outflow of €165 million after €66 million in the previous year. The outflow in the reporting period resulted in particular from the increase in inventories and trade receivables, while the rise in trade payables had a countervailing effect. Therefore, the net cash provided by operating activities totaled €472 million, down on the previous year's figure of €568 million.

Investing activities resulted in a cash inflow of €65 million in fiscal year 2018, compared with a cash outflow of €22 million in the prior-year period. A significant effect resulted from the financial resources of €1,427 million received from the sale of the 50% interest in ARLANXEO less divested cash and cash equivalents of €123 million. This was countered by the investment in time deposits and securities available for sale. In the previous year, the outflow was influenced by the purchase price payment for Chemtura and the returns from money market investments. Cash outflows for purchases of intangible assets and property, plant and equipment amounted to €497 million, up on the prior-year figure of €397 million. In addition, the addition to German pension assets led to cash outflow of €200 million. Interest and dividends received totaled €15 million, down €36 million on the previous year's figure, driven primarily by the payment of a reduced profit distribution by Currenta GmbH & Co. OHG, Leverkusen, Germany. At €3 million, cash inflows from the sale of intangible assets and property, plant and equipment were above the prior-year level of €2 million.

Net cash used in financing activities came to €160 million, against €545 million the year before. One significant effect in the reporting year was the placement of a new Eurobond with a volume of €500 million. The repayment of borrowings had a significant effect on cash outflow in both the previous year and the reporting year. Interest payments and other financial disbursements of €77 million were on a par with the previous year. An outflow of €74 million was accounted for by the dividend paid to the stockholders of LANXESS AG for fiscal year 2017, after €64 million in the previous year.

The net increase in cash and cash equivalents from continuing operations in fiscal year 2018 was €377 million, after €1 million the previous year. After taking into account currency-related and other changes in cash and cash equivalents of €6 million, cash and cash equivalents at the closing date amounted to €797 million, against €538 million at the previous year's closing date. On December 31, 2018, the Group continued to have a solid liquidity position.

Free cash flow – the difference between the cash inflows from operating activities and the cash used for capital expenditures for property, plant and equipment and intangible assets – decreased by €196 million to minus €25 million.

Principles and objectives of financial management

LANXESS pursues a conservative financial policy characterized by the forward-looking management of financial risks. Our aim is to be able to provide sufficient liquidity to our business operations at all times, regardless of cyclical fluctuations in the real economy or financial markets. The debt level is largely aligned with the ratio systems of the leading rating agencies for

investment-grade companies and, along with free cash flow, is the focus of financial management. In addition to liquidity risk, financial management also covers other financial risks, such as interest and foreign exchange risks. Here too, we aim to mitigate the financial risks that arise and thereby increase planning reliability, partly by using derivative financial instruments. Detailed information about the management of these risks is contained in the "[Opportunity and risk report](#)."

LANXESS Group ratings

Access to the capital markets and good relations with German and international commercial banks are essential for achieving our

financial management objectives. Accordingly, ongoing dialog and communication with banks, investors and rating agencies are of crucial importance. In light of the announced sale of the 50% interest in ARLANXEO in August 2018, the rating agencies Standard & Poor's, Moody's and Scope Ratings increased LANXESS's credit rating. Standard & Poor's raised the rating from "BBB-" to "BBB" and left the outlook at "stable." Moody's improved its assessment of the credit rating from "Baa3" to "Baa2" and likewise left the outlook at "stable." The agency Scope Ratings raised the rating from "BBB" to "BBB+" over the course of the year and confirmed the "stable" outlook.

Development of LANXESS Ratings and Rating Outlook Since 2014

	2014	2015	2016	2017	2018
Standard & Poor's	BBB-/stable May 19, 2014	BBB-/positive Sept. 24, 2015	BBB-/negative Sept. 26, 2016	BBB-/stable July 31, 2017	BBB/stable Oct. 16, 2018
Moody's Investors Service	Baa3/stable June 20, 2014	Baa3/stable July 2, 2015	Baa3/stable Sept. 26, 2016	Baa3/stable Oct. 20, 2017	Baa2/stable Aug. 23, 2018
Scope Ratings					BBB+/stable Aug. 15, 2018

Financing analysis

In fiscal year 2018, LANXESS retained a balanced financing structure and a solid liquidity position. A bond that matured in May 2018 was refinanced with a new bond with a volume of €500 million and a term of seven years. As of December 31, 2018, we successfully completed the full sale of the shares in ARLANXEO. LANXESS thus received cash and cash equivalents of around €1.4 billion as of the end of 2018.

The existing debt issuance program allows the very flexible placement of bonds on the capital market. As of December 31, 2018, just under €2.2 billion of the €5 billion financing facility had been utilized to issue bonds and private placements. The volume of the debt issuance program can be adjusted flexibly in line with future requirements so as to ensure financial headroom. Capital market financing is a central component in LANXESS's financing mix, which is subject to regular review to ensure the adequate diversification of our financing sources and our strategic alignment.

Current financial liabilities decreased from €633 million in the previous year to €59 million as of December 31, 2018. The decline is primarily the result of the bond of €500 million that matured in May 2018. We made only limited use of finance leases, which are reported as financial liabilities in the statement of financial position. As of December 31, 2018, the financial liabilities from finance leases were down to €17 million from €61 million in the previous year. The LANXESS Group uses operating leases mainly for operational reasons and not as a means of financing. Minimum

non-discounted future payments relating to operating leases fell to €176 million against €193 million in the previous year. The reduction mainly results from the disposal of ARLANXEO.

As of December 31, 2018, LANXESS had no material financing items off statement of financial position in the form of factoring, asset-backed structures or project financing, for example.

The Group's total financial liabilities, net of accrued interest, decreased from €2,840 million in 2017 to €2,720 million as of December 31, 2018. Net financial liabilities – defined as total financial liabilities net of cash, cash equivalents, accrued interest and near-cash assets – amounted to €1,923 million at the end of the reporting year, down from €2,252 million as of December 31, 2017. As of December 31, 2018, moreover, time deposits and securities available for sale were held totaling €542 million. Net financial liabilities after deduction of time deposits and securities available for sale amounted to €1,381 million at the end of 2018. Of the total financial liabilities, almost 100% bear a fixed interest rate over the term of the financing, which is unchanged from the previous year. Interest rate changes do not have a material effect on LANXESS's financial condition considering the current financing structure. The proportion of loans and bonds denominated in euro averaged 99% in the reporting year, up slightly on the prior-year level of 97%. The weighted average interest rate for our financial liabilities in euro was 2.0% at year-end 2018, down on the prior-year figure of 2.7%.

The following overview shows LANXESS's financing structure as of December 31, 2018, in detail, including its principal liquidity reserves.

Financing Structure

Instrument	Amount € million	Term	Interest rate %	Financial covenant
Eurobond 2016/2021 (€500 million)	497	October 2021	0.250	no
Eurobond 2012/2022 (€500 million)	497	November 2022	2.625	no
Eurobond 2018/2025 (€500 million)	492	May 2025	1.125	no
Eurobond 2016/2026 (€500 million)	494	October 2026	1.000	no
Hybrid bond 2016/2076 (€500 million)	490	December 2076	4.500	no
Private placement 2012/2022 (€100 million)	100	April 2022	3.500	no
Private placement 2012/2027 (€100 million)	99	April 2027	3.950	no
Other loans	34	n/a		no
Finance lease	17	n/a		no
Total financial liabilities	2,720			
Cash and cash equivalents	797	≤ 3 months		
Near-cash assets	0	≤ 3 months		
Total liquidity	797			
Net financial liabilities	1,923			
Time deposits and securities available for sale	542			
Net financial liabilities after deduction of time deposits and securities available for sale	1,381			

The other loans related mainly to the use of credit facilities by subsidiaries in China, which are extended on a regular basis. No refinancing risks existed at the time these financial statements were prepared.

Liquidity analysis

Around 95% of our cash and cash equivalents of €797 million are held in Group companies in countries with no restrictions on foreign exchange and capital transfers. The remaining approximately 5% are held in companies in regulated capital markets where cash transfers are restricted. In addition to cash and cash equivalents, LANXESS holds time deposits and securities available

for sale of €542 million. There are also additional liquidity reserves in the form of undrawn credit lines. Money market investments are largely made in bilateral instruments at banks and money market funds.

Thanks to our good liquidity position, our solvency was assured at all times in fiscal year 2018.

By far the most important of LANXESS's credit lines is the syndicated credit facility of €1.25 billion with a term until May 2023. The term was extended by one year on the basis of a contract option.

The credit facility remains largely undrawn to date. It is designed as an operating line of credit and to provide funds for capital investment, and complies with the market requirements of the European syndicated loan market for investment-grade companies with a BBB rating. None of our major loan agreements contains a financial covenant. In total, we had undrawn credit facilities of around €1.3 billion as of December 31, 2018, as in the previous year.

The total of liquid assets and undrawn credit lines gives us available liquidity of around €2.1 billion.

MANAGEMENT'S SUMMARY OF BUSINESS DEVELOPMENT AND THE FISCAL YEAR

In the reporting period, LANXESS Group sales climbed by 10.2% from €6,530 million in the previous year to €7,197 million. The increase in sales resulted largely from the Chemtura business units acquired in 2017 and from higher sales due to raw material prices and volumes in the existing operating business of the Advanced Intermediates and Engineering Materials segments. In addition, the U.S. phosphorus additives business acquired from the Belgian chemicals group Solvay in February 2018 had a pleasing portfolio effect on sales. The adverse development of exchange rates had a negative impact on sales performance.

EBITDA pre exceptionals in 2018 increased by €91 million from €925 million to €1,016 million. This development resulted in particular from the operating strength of the Advanced Intermediates, Specialty Additives and Engineering Materials segments as well as the successful integration of Chemtura.

Net income and earnings per share improved considerably year-on-year from €87 million to €431 million and from €0.95 to €4.71, respectively. The improvement resulted mainly from the development of continuing operations. Positive net income also resulted from discontinued operations. This resulted mainly from the accounting in accordance with IFRS 5, according to which the intangible assets and property, plant and equipment of ARLANXEO are not subject to any further amortization or depreciation. In addition, a positive impact was made by the gain from the sale of the 50% interest in ARLANXEO of €90 million.

We view the development of earnings as positive overall.

We upheld our conservative accounting and financing policy in 2018 as well. In accordance with the consistency principle, we essentially applied the same measurement methods and exercised the same discretion as in the previous year. The equity ratio fell from 32.8% to 31.9%. Total assets decreased from €10,411 million to €8,687 million, largely as a result of the sale of our 50% interest in ARLANXEO.

Our statement of financial position shows that our liquidity position remains solid. Additional substantial liquidity reserves in the form of undrawn credit lines are also available. Of the total financial liabilities, almost 100% bear a fixed interest rate over the term of the financing, which is unchanged from the previous year. Our financial liabilities are free of financial covenants.

Our net financial liabilities declined after deduction of time deposits and securities available for sale by €871 million to €1,381 million. In fiscal year 2018, the rating agencies Standard & Poor's, Moody's and Scope Ratings raised their assessments of our credit rating. Standard & Poor's upgraded its rating from "BBB-" to "BBB," Moody's raised the rating from "Baa3" to "Baa2" and Scope Ratings improved the rating from "BBB" to "BBB+." All three rating agencies continue to assume a stable outlook.

We continue to regard our business situation as positive. With the sale of our 50% interest in ARLANXEO, we have taken another step towards becoming a much more stable specialty chemicals company with a stronger cash flow and a more balanced, more sustainable portfolio.

KEY BUSINESS DATA – MULTI-PERIOD OVERVIEW

Indicators

€ million	2014	2015	2016	2017	2018
Earnings performance					
Sales	8,006	7,902	7,699	6,530	7,197
EBITDA pre exceptionals	808	885	995	925	1,016
EBITDA margin pre exceptionals	10.1%	11.2%	12.9%	14.2%	14.1%
EBITDA	644	833	945	709	935
Operating result (EBIT) pre exceptionals	402	422	514	558	595
Operating result (EBIT)	218	415	464	299	504
EBIT margin	2.7%	5.3%	6.0%	4.6%	7.0%
Net income	47	165	192	87	431
Earnings per share (€)	0.53	1.80	2.10	0.95	4.71
Financial position					
Cash flow from operating activities	797	692	689	568	472
Depreciation and amortization/ reversals of impairment charges	426	418	481	410	431
Cash outflows for capital expenditures	614	434	439	397	497
Net financial liabilities	1,336	1,211	2,394	2,252	1,923
Net financial liabilities after deduction of time deposits and securities available for sale	1,336	1,211	269	2,252	1,381
Assets and liabilities					
Total assets	7,250	7,219	9,877	10,411 ¹⁾	8,687
Non-current assets	4,101	4,180	4,519	6,454 ¹⁾	4,786
Current assets	3,149	3,039	5,358	3,957	3,901
Net working capital	1,600	1,526	1,628	1,948	1,455
Equity (including non-controlling interests)	2,161	2,323	3,728	3,413	2,773
Pension provisions	1,290	1,215	1,249	1,490	1,083
Indicators					
ROCE	7.9%	8.4%	6.9%	9.3%	11.4% ²⁾
Equity ratio	29.8%	32.2%	37.7%	32.8%	31.9%
Non-current asset ratio	56.6%	57.9%	45.8%	62.0%	55.1%
Asset coverage I	52.7%	55.6%	82.5%	52.9%	57.9%
Net working capital/sales	20.0%	19.3%	21.1%	20.2%	20.2%
Employees (as of December 31)	16,584	16,225	16,721	19,029	15,441

Figures from 2017 not including ARLANXEO, except statement of financial position items as of December 31, 2017, and key figures for 2017 on this basis.

1) Prior-year figures restated. For background information, please see the "Restatement of prior-year figures" section of the Notes to the Consolidated Financial Statements.

2) Underlying capital employed as of December 31, 2018, adjusted. See "Value Management and Control System" for details.

EARNINGS, ASSET AND FINANCIAL POSITION OF LANXESS AG

LANXESS AG serves primarily as the management holding company for the LANXESS Group. The principal management functions for the entire Group are performed by the Board of Management. The Board of Management shapes Group strategy and manages resource allocation, infrastructure and organization. The Group management company is also responsible for financing and communication with LANXESS's key stakeholders. The economic performance of LANXESS AG depends principally on the operating business entities in the LANXESS Group and on the development of the chemical industry. The balance of income and losses from investments in affiliated companies resulting from profit or loss transfers and dividends from affiliated companies is of key importance for the future ability of LANXESS AG to pay a dividend. Therefore, especially the statements made in the "Opportunity and risk report" in this Management Report apply in principle to LANXESS AG as well.

The financial statements of LANXESS AG are prepared in accordance with the German Commercial Code (HGB) and the German Stock Corporation Act (AktG).

Sales and earnings of LANXESS AG

LANXESS AG Income Statement in Accordance with the German Commercial Code (HGB) – Abridged

€ million	2017	2018	Change %
Sales	6	7	16.7
Cost of sales	(6)	(7)	(16.7)
Gross profit	0	0	-
General administration expenses	(46)	(48)	(4.3)
Other operating income	1	2	100.0
Other operating expenses	(1)	0	100.0
Operating result	(46)	(46)	0.0
Income from investments in affiliated companies	194	318	63.9
Income from loans held as financial assets	9	9	0.0
Net interest expense	(65)	(69)	(6.2)
Write-downs on securities classified as current assets	0	(1)	<(100)
Other financial income and expenses – net	(10)	(17)	(70.0)
Financial result	128	240	87.5
Income (loss) before income taxes	(59)	(109)	(84.7)
Income taxes	23	85	> 100
Net income	23	85	> 100
Carryforward to new account	93	42	(54.8)
Withdrawal from other retained earnings	0	0	-
Distributable profit	116	127	9.5

The earnings of LANXESS AG are largely determined by profit or loss transfers from LANXESS Deutschland GmbH, net interest and general administration expenses.

Sales at LANXESS AG stood at €7 million, which was higher than in the previous year. They related mainly to services provided to LANXESS Deutschland GmbH. A balanced result remained after deducting the cost of sales, which consisted mostly of personnel expenses and appropriate shares of the general administration expenses.

General administration expenses increased year-on-year by €2 million, or 4.3%, to €48 million. They principally comprised personnel and other business expenses not directly related to the services provided to Group companies. The operating result amounted to minus €46 million, as in the previous year.

The financial result, which comprises the balance of income and losses from investments in affiliated companies, the net interest position, income from loans included in financial non-current assets, write-downs on securities classified as current assets, and other financial income and expense, rose from €128 million to €240 million. This change was primarily due to the profit transfer of €318 million from LANXESS Deutschland GmbH, which was €124 million higher than in the previous year. The financial result was negatively influenced by the €4 million deterioration in the net interest position to minus €69 million.

Income taxes resulted in expenses of €109 million. These were comprised of tax expenses of €44 million for the reporting period and €65 million for previous years. Net income for fiscal year 2018 was €85 million after €23 million in the previous year.

As of December 31, 2018, the company reported a distributable profit of €127 million taking into account the profit carry-forward of €42 million. In the previous year, a distributable profit of €116 million was posted.

Asset and capital structure of LANXESS AG

LANXESS AG Statement of Financial Position in Accordance with the German Commercial Code (HGB) – Abridged

	Dec. 31, 2017		Dec. 31, 2018		Change %
	€ million	%	€ million	%	
ASSETS					
Financial assets	980	19.3	997	18.3	1.7
Non-current assets	980	19.3	997	18.3	1.7
Receivables from affiliated companies	3,849	75.8	3,061	56.3	(20.5)
Other assets	51	1.0	245	4.5	> 100
Liquid assets and securities	174	3.4	1,103	20.3	> 100
Current assets	4,074	80.2	4,409	81.1	8.2
Prepaid expenses	26	0.5	31	0.6	19.2
Total assets	5,080	100.0	5,437	100.0	7.0
EQUITY AND LIABILITIES					
Equity	2,000	39.4	2,011	37.0	0.6
Provisions	124	2.4	167	3.1	34.7
Bonds	2,700	53.2	2,700	49.7	0.0
Liabilities to banks	34	0.7	29	0.5	(14.7)
Payables to affiliated companies	220	4.3	527	9.7	> 100
Other liabilities	2	0.0	3	0.0	50.0
Liabilities	2,956	58.2	3,259	59.9	10.3
Total assets	5,080	100.0	5,437	100.0	7.0

In view of its function as a strategic holding company, the statement of financial position of LANXESS AG is dominated by financial assets and liabilities and by receivables from, and payables to, subsidiaries.

LANXESS AG had total assets of €5,437 million as of December 31, 2018, which was €357 million, or 7.0%, above the prior-year figure. Non-current assets were €997 million and primarily included the carrying amount of the investment in LANXESS Deutschland GmbH, which stands at €739 million, and loans to subsidiaries of €198 million. The share of non-current assets in total assets decreased from 19.3% to 18.3%. Current assets increased by €335 million, or 8.2%, to €4,409 million and accounted for 81.1% of total assets, compared with 80.2% in the previous year. Receivables from subsidiaries accounted for 56.3% of total assets, compared to 75.8% in the previous year, and related principally to short-term loans, financial transactions and claims to profit or loss transfers. Other receivables largely consisted of non-disposable time deposits and accounted for 4.5% of total assets compared with 1.0% in the previous year. The share of bank balances and securities in total assets increased from 3.4% to 20.3%.

Equity increased by €11 million to €2,011 million, largely due to net income of €85 million. This was partly offset by the dividend payment for 2017. The equity ratio was 37.0%, after 39.4% at the end of 2017.

The provisions increased by €43 million to €167 million and related in particular to commitments to employees and to statutory and contractual obligations. Liabilities increased by €303 million to €3,259 million. This was mainly because of the increase in payables to affiliated companies, which were down by €307 million on the previous year at €527 million.

COMPENSATION REPORT

Compensation of the Board of Management

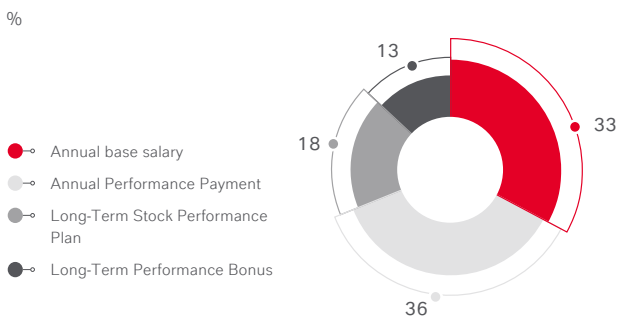
The structure of the compensation system and the level of compensation for the members of the Board of Management are determined by the Supervisory Board, after preparation by the Presidial Committee. The appropriateness of the compensation is regularly reviewed by an external personnel consulting company. The criteria for determining the appropriateness of the compensation for an individual Board of Management member include, in particular, his duties, his personal performance, the economic situation, and the success and sustainable growth of the LANXESS Group. In addition, consideration is also given to compensation at comparable companies and the company's overall compensation structure with regard to the ratio between the compensation of the Board of Management and that of LANXESS's senior executives and the rest of the workforce, both overall and in terms of time. The compensation structure is also designed to be competitive in the international market for highly qualified executives and provide the motivation to successfully work toward sustainable corporate development. Two of the three variable components are measured according to corporate performance over several years, and thus set long-term incentives.

The compensation system that was introduced for members of the Board of Management in 2010 was approved by the Annual Stockholders' Meeting of LANXESS AG on May 28, 2010, with a majority of 99.10% of the capital represented. The company intends to allow the 2020 Annual Stockholders' Meeting to vote on the compensation system after the ongoing legislative procedure regarding the Second Shareholder Rights Directive Implementation Act (ARUG II) is complete and the new version of the German Corporate Governance Code (GCGC) is adopted.

The components of the compensation for members of the Board of Management are the base salary; the short-term and long-term variable components, which are the Annual Performance Payment (APP), the Long-Term Stock Performance Plan (LTSP) and the Long-Term Performance Bonus (LTPB); and a retirement pension. The three variable components APP, LTSP and LTPB are linked to LANXESS's annual performance and performance over a number of years. The average compensation mix of 33% annual base salary and 67% variable compensation components, assuming 100% target attainment, is strongly aligned with the company's performance and long-term value creation. The present service contracts for members of the Board of Management set out the annual base salary and caps on the amounts for the variable compensation components. Currently, the contracts do not provide for a separate cap, exceeding the aforementioned, on total compensation, even taking into account a possible discretionary bonus.

Changes to the existing Board of Management contracts are planned in the near future. Please see "Other" in this compensation report for details.

Compensation Mix for Members of the Board of Management



Fixed compensation

The fixed compensation comprises the annual base salary and compensation in kind, the latter consisting mainly of the tax value of perquisites, such as the use of a company car. The annual base salary of the members of the Board of Management is market-oriented and in line with that paid at other comparable companies. It is paid each month pro-rata as salary.

Variable compensation

The annual performance-related component of variable compensation is the Annual Performance Payment (APP). It is based on corporate business targets such as attainment of specific targets for the LANXESS Group's EBITDA pre exceptional. In the case of 100% target attainment, the individual APP budget for fiscal year 2018 for Mr. Zachert is 125% and for the other members of the Board of Management 100% of their respective annual

base salaries. The target and threshold values applicable to the payment level are set each year by the Supervisory Board before the start of a new fiscal year. There is no payment of a minimum amount. For fiscal year 2018, the maximum payment is capped at 200% of the individual budget in line with the caps applied for non-managerial and managerial staff. If targets are missed to a considerable degree, it is possible that no APP payment (0%) will be made. In addition, the Supervisory Board reserves the right to reduce the APP in the event of serious occupational safety and/or environmental problems.

The Long-Term Stock Performance Plan (LTSP) over several years is another element of variable compensation. This compensation component is based on the performance of LANXESS stock against a reference index. The Dow Jones STOXX 600 ChemicalsSM serves as a reference index for the LTSP 2010–2013, which was created in 2010, while the MSCI World Chemicals Index serves as a reference index for the LTSP 2014–2017, which was established in 2014. The LTSP is divided into four four-year tranches. The condition for participation in both LTSP programs is a prior personal investment each year in LANXESS shares of 5% of the annual base salary. These shares are subject to an average vesting period of five years (LTSP 2010–2013) and four years (LTSP 2014–2017). The rights granted by the LTSP may be exercised at the end of these periods. The exercise period is three years in general, but five years for the 2012 and 2013 tranches.

In the LTSP 2018–2021, in place since 2018, the rights granted are exercised immediately at the end of the four-year vesting period. Assuming 100% target attainment, the LTSP programs provide for a possible payment per tranche of 30% of the individual target income. The maximum payment is 60% of the individual target income.

In parallel with the introduction of the LTSP 2018–2021, the Share Ownership Guideline (SOG) was also established in 2018. Continuously over a period of four years the members of the Board of Management are obliged to verifiably acquire and hold a minimum amount of shares (SOG target) in LANXESS AG. The SOG target is 150% of annual base salary for the Chairman of the Board of Management and 100% of annual base salary for the other members of the Board of Management.

For more information, particularly regarding the valuation parameters applied, please see Note [15] to the consolidated financial statements.

For fiscal year 2018, the share-based compensation resulted in an expense of €58 thousand for Mr. Zachert (previous year: expense of €935 thousand), income of €113 thousand for Dr. Fink (previous year: expense of €91 thousand), income of €113 thousand for Mr. Pontzen (previous year: expense of €91 thousand) and an expense of €87 thousand for Dr. van Roessel (previous year: expense of €441 thousand).

The Long-Term Performance Bonus (LTPB), which is the third variable component, is likewise aligned with long-term corporate performance. It rewards target attainment only after two successive fiscal years. The basis for calculating the LTPB is the individual APP target attainment for the fiscal years in question. The exact amount of the LTPB results from the average individual APP target attainment for the two fiscal years. The LTPB for the Board of Management is set by the Supervisory Board and amounts to 45% of fixed annual compensation in the event of average APP target attainment of 100%.

Stephen C. Forsyth, who was left the Board of Management on May 31, 2018, received an annual base salary for his one-year fixed term on the Board of Management, as well as the APP as performance-related variable compensation. However, he did not participate in the long-term compensation components LTSP and LTPB.

Compensation of the Board of Management

	Year	Fixed compensation		Variable compensation			Total cash compensation	Payments from LTSP rights Fair values	Total
		Annual base salary	Compensation in kind	Performance bonus ⁴⁾	LTPB (multi-year)	Payment for previous years			
€ thousand									
Matthias Zachert	2018	1,200	757	1,950	702²⁾	-	4,609	810	5,419
	2017	1,200	73	3,000	1,080 ¹⁾	(41) ³⁾	5,312	737	6,049
Dr. Hubert Fink	2018	550	53	715	322²⁾	-	1,640	330	1,970
	2017	475	53	1,100	528 ¹⁾	(13) ³⁾	2,143	246	2,389
Michael Pontzen	2018	550	187	715	322²⁾	-	1,774	330	2,104
	2017	525	47	1,100	528 ¹⁾	(13) ³⁾	2,187	246	2,433
Dr. Rainier van Roesel	2018	650	51	845	380²⁾	-	1,926	390	2,316
	2017	650	51	1,300	585 ¹⁾	(19) ³⁾	2,567	355	2,922
Stephen C. Forsyth (June 1, 2017 until May 31, 2018)	2018	188	-	186	-	-	374	-	374
	2017	263	-	525	-	-	788	-	788
Total	2018	3,138	1,048	4,411	1,726	-	10,323	1,860	12,183
	2017	3,113	224	7,025	2,721	(86)	12,997	1,584	14,581

1) Payment of 50% each in 2018 and 2019 2) Payment of 50% each in 2019 and 2020 3) Payment in 2017 and 2018, respectively 4) Payment in 2018 and 2019, respectively

The aggregate compensation for the Board of Management was €12,183 thousand (previous year: €14,581 thousand), comprising €4,186 thousand (previous year: €3,337 thousand) in non-performance-related components, €6,137 thousand (previous year: €9,660 thousand) in performance-related components and €1,860 thousand (previous year: €1,584 thousand) in components with a long-term incentive effect. In fiscal year 2018, the performance-related components were based on the EBITDA pre exceptionals achieved of €1,016 million and the resulting APP target attainment of 130%. APP target attainment would have been 100% for fiscal year 2018 if EBITDA pre exceptionals had been €980 million. In the context of the LTSP, a total of 1,860,000 rights were granted to the members of the Board of Management (previous year: 1,740,000 rights). Regarding the fair value per right of the individual tranches on the reporting date, please see [Note \[15\]](#) to the consolidated financial statements.

The increase in compensation in kind for Mr. Zachert to €757 thousand (previous year: €73 thousand) and for Mr. Pontzen to €187 thousand (previous year: €47 thousand) resulted from the security measures in their homes approved by the Supervisory Board of LANXESS AG.

Retirement pensions

On termination of their service contracts, the members of the Board of Management receive benefits under the company pension plan. These benefits are paid when the beneficiary reaches the age of 60 or 62 or if the beneficiary is permanently unable to work. They are paid to surviving dependents in the event of the beneficiary's death.

The pension plan for the members of the Board of Management is a defined contribution plan stipulating a basic contribution to be made by the company equal to 25% of the annual base salary and APP. The maximum amount taken into account for calculating the APP contribution is that due on 100% target attainment, irrespective of the actual target attainment. Moreover, the members of the Board of Management must themselves pay an amount from deferred compensation amounting to 12.5% of the APP. The members of the Board of Management may increase their personal contribution to up to 25% of the APP. From the date of entitlement, up to 30% of the accumulated capital – including the interest thereon – may be converted to a pension benefit. There are claims arising from provisions in

place before 2006 that are granted as vested rights to individual members of the Board of Management. If the service contract ends before the beneficiary reaches the age of 60 or 62, the company pays certain additional benefits up to a defined ceiling.

LANXESS has established provisions for the future claims of Board of Management members. The service costs recognized

under IFRS accounting rules for this purpose, the net expense recognized under HGB accounting rules for this purpose and the present value of the obligations under IFRS and HGB accounting rules can be found in the following table for the Board of Management members serving as of December 31, 2018:

Pension Claims

€ thousand	Year	IFRS		HGB	
		Service Costs	Present Value of the Obligations	Net Expense for Pension Entitlements	Present Value of the Obligations
Matthias Zachert	2018	749	6,251	979	5,085
	2017	775	5,613	1,080	4,106
Dr. Hubert Fink	2018	311	4,058	639	3,306
	2017	309	3,626	550	2,666
Michael Pontzen	2018	323	2,298	346	1,768
	2017	268	2,108	451	1,423
Dr. Rainier van Roessel	2018	158	7,370	617	6,699
	2017	157	7,030	504	6,082
Stephen C. Forsyth (June 1, 2017 until May 31, 2018)	2018	-	-	-	-
	2017	-	-	-	-
Total	2018	1,541	19,977	2,581	16,858
	2017	1,509	18,377	2,585	14,277

As of December 31, 2018, obligations to former members of the Board of Management totaled €35,261 thousand (previous year: €34,828 thousand) under IFRS accounting rules and €30,089 thousand (previous year: €27,772 thousand) under HGB accounting rules.

Benefits associated with and following termination of service on the Board of Management

The members of the Board of Management have indemnification rights should their service contracts be terminated for defined reasons at the instigation of the company or in the event of a material change of control over the company. The terms depend on the respective circumstances and include severance payments amounting to up to twice the annual base salary or, in the event of a change of control, three times the annual base salary, plus the APP and LTPB. In the event of departure, LTSP rights are compensated in accordance with the terms and conditions of the plan.

No additional benefits have been pledged to any member of the Board of Management in the event of termination of their service.

Payments totaling €473 thousand (previous year: €473 thousand) were made to former members of the Board of Management in fiscal year 2018.

Other

In the past fiscal year, no member of the Board of Management received substantial benefits or assurances of benefits from third parties with respect to their duties as members of the Board of Management.

No loans were granted to members of the Board of Management in fiscal year 2018.

The Supervisory Board intends, with the consent of the members of the Board of Management, to amend the members of the Board of Management's service contracts for 2019, in order among other things to more closely meet the demand for long-term Board of Management compensation. The following changes are to be made in particular:

- › The total compensation for the members of the Board of Management is to be capped in the future.
- › The size of the contributions to the company pension plan and the compensation in kind is not to exceed a defined proportion of the annual base salary.
- › The Supervisory Board's granting of an ad hoc discretionary bonus to recognize special achievements or to create an additional performance incentive is to be limited to a maximum amount.
- › The LTPB is to be altered in the future to assess target attainment in three consecutive fiscal years.
- › The Supervisory Board reserves the right to withhold or reclaim ("claw-back") the granted variable compensation in full or in part in the event of grave dereliction of duty.

Individual compensation in line with the recommendations of the German Corporate Governance Code

The following tables list the compensation, additional benefits and allocations (payments) for 2017 and 2018, in line with the recommendations of the German Corporate Governance Code. The variable compensation components differ depending on the reference period. The amounts of compensation shown also include the maximum and minimum attainable compensation.

Compensation Granted

€ thousand	Matthias Zachert Chairman of the Board of Management				Dr. Hubert Fink Member of the Board of Management			
	Target value 2017	Target value 2018	2018 (min.)	2018 (max.)	Target value 2017	Target value 2018	2018 (min.)	2018 (max.)
Annual base salary	1,200	1,200	1,200	1,200	475	550	550	550
Compensation in kind	73	757	757	757	53	53	53	53
Total	1,273	1,957	1,957	1,957	528	603	603	603
Annual Performance Payment (APP)	1,500	1,500	0	3,000	550	550	0	1,100
Multi-year variable compensation	1,277	1,350	0	2,700	517	578	0	1,155
LTPB (tranche 2016–2017)	–	–	–	–	23	–	–	–
LTPB (tranche 2017–2018)	540	–	–	–	248	–	–	–
LTPB (tranche 2018–2019)	–	540	0	1,080	–	248	0	495
LTSP 2014–2017 (tranche 2017)	737	–	–	–	246	–	–	–
LTSP 2018–2021 (tranche 2018)	–	810	0	1,620	–	330	0	660
Total	4,050	4,807	1,957	7,657	1,595	1,731	603	2,858
Service cost	775	749	749	749	309	311	311	311
Total compensation	4,825	5,556	2,706	8,406	1,904	2,042	914	3,169

Compensation Granted

€ thousand	Michael Pontzen Chief Financial Officer				Dr. Rainier van Roessel Member of the Board of Management			
	Target value 2017	Target value 2018	2018 (min.)	2018 (max.)	Target value 2017	Target value 2018	2018 (min.)	2018 (max.)
Annual base salary	525	550	550	550	650	650	650	650
Compensation in kind	47	187	187	187	51	51	51	51
Total	572	737	737	737	701	701	701	701
Annual Performance Payment (APP)	550	550	0	1,100	650	650	0	1,300
Multi-year variable compensation	517	578	0	1,155	648	683	0	1,365
LTPB (tranche 2016–2017)	23	–	–	–	–	–	–	–
LTPB (tranche 2017–2018)	248	–	–	–	293	–	–	–
LTPB (tranche 2018–2019)	–	248	0	495	–	293	0	585
LTSP 2014–2017 (tranche 2017)	246	–	–	–	355	–	–	–
LTSP 2018–2021 (tranche 2018)	–	330	0	660	–	390	0	780
Total	1,639	1,865	737	2,992	1,999	2,034	701	3,366
Service cost	268	323	323	323	157	158	158	158
Total compensation	1,907	2,188	1,060	3,315	2,156	2,192	859	3,524

Compensation Granted

Stephen C. Forsyth Member of the Board of Management Appointed June 1, 2017, resigned May 31, 2018				
€ thousand	Target value 2017	Target value 2018	2018 (min.)	2018 (max.)
Annual base salary	263	188	188	188
Compensation in kind	–	–	–	–
Total	263	188	188	188
Annual Performance Payment (APP)	263	186	186	186
Multi-year variable compensation	–	–	–	–
LTPB (tranche 2016–2017)	–	–	–	–
LTPB (tranche 2017–2018)	–	–	–	–
LTPB (tranche 2018–2019)	–	–	–	–
LTSP 2014–2017 (tranche 2017)	–	–	–	–
LTSP 2018–2021 (tranche 2018)	–	–	–	–
Total	526	374	374	374
Service cost	–	–	–	–
Total compensation	526	374	374	374

Allocations

€ thousand	Matthias Zachert Chairman of the Board of Management		Dr. Hubert Fink Member of the Board of Management	
	2017	2018	2017	2018
Annual base salary	1,200	1,200	475	550
Compensation in kind	73	757	53	53
Total	1,273	1,957	528	603
Annual Performance Payment (APP)	2,970	1,950	1,091	715
Multi-year variable compensation	935	2,333	429	408
LTPB (tranche 2015–2016)	(5)	–	(2)	–
LTPB (tranche 2016–2017)	940	–	431	–
LTPB (tranche 2017–2018)	–	891	–	408
LTSP 2010–2013	–	–	–	–
LTSP 2014–2017 ¹⁾	–	1,442	–	–
Total	5,178	6,240	2,048	1,726
Service cost	775	749	309	311
Total compensation	5,953	6,989	2,357	2,037

1) Exercise of LTSP tranche 2014

Allocations

€ thousand	Michael Pontzen Chief Financial Officer		Dr. Rainier van Roessel Member of the Board of Management	
	2017	2018	2017	2018
Annual base salary	525	550	650	650
Compensation in kind	47	187	51	51
Total	572	737	701	701
Annual Performance Payment (APP)	1,091	715	1,287	845
Multi-year variable compensation	429	408	506	1,244
LTPB (tranche 2015–2016)	(2)	–	(3)	–
LTPB (tranche 2016–2017)	431	–	509	–
LTPB (tranche 2017–2018)	–	408	–	483
LTSP 2010–2013	–	–	–	–
LTSP 2014–2017 ¹⁾	–	–	–	761
Total	2,092	1,860	2,494	2,790
Service cost	268	323	157	158
Total compensation	2,360	2,183	2,651	2,948

1) Exercise of LTSP tranche 2014

Allocations

Stephen C. Forsyth Member of the Board of Management Appointed June 1, 2017, resigned May 31, 2018		
€ thousand	2017	2018
Annual base salary	263	188
Compensation in kind	–	–
Total	263	188
Annual Performance Payment (APP)	525	186
Multi-year variable compensation	–	–
LTPB (tranche 2015–2016)	–	–
LTPB (tranche 2016–2017)	–	–
LTPB (tranche 2017–2018)	–	–
LTSP 2010–2013	–	–
LTSP 2014–2017 ¹⁾	–	–
Total	788	374
Service cost	–	–
Total compensation	788	374

1) Exercise of LTSP tranche 2014

Compensation of the Supervisory Board

The compensation of the Supervisory Board is governed by Section 12 of the company's articles of association. The members of the Supervisory Board of LANXESS AG receive fixed compensation of €80 thousand per year. The Chairman of the Supervisory Board receives three times, and the Vice Chairman one and a half times, this amount. Serving as the chair or a member of Supervisory Board committees is compensated separately in accordance with the German Corporate Governance Code. Supervisory Board members who belong to a committee receive one half of the fixed compensation amount in addition. The chair of the Audit Committee receives a further half. Supervisory Board members who chair a committee other than the Audit Committee receive a further quarter. However, no member may receive in total more than three times the fixed compensation amount.

Supervisory Board members are reimbursed for their expenses in addition and also receive an attendance allowance of €1.5 thousand for each Supervisory Board meeting and each committee meeting they attend, with the exception of meetings of the Committee formed pursuant to Section 27, Paragraph 3, of the German Codetermination Act and meetings of the Nominations Committee. With respect to their membership on the supervisory boards of LANXESS Group companies, the members of the Supervisory Board are remunerated only for their service on the Supervisory Board of LANXESS Deutschland GmbH in the amount of €5 thousand each.

The Supervisory Board members also receive a long-term incentive based on the company's performance during the standard term of an individual's membership on the Supervisory Board (five years). Unlike the fixed compensation component, this variable compensation component is not paid every year, but only once at the end of the standard term of office. If a Supervisory Board member serves a shorter term, the amount is prorated.

Payment of the variable compensation depends on how LANXESS's stock performs relative to the Dow Jones STOXX 600 ChemicalsSM during a member's five-year term. The average price of LANXESS stock and the average level of the index during the 90 trading days prior to the Annual Stockholders' Meeting at which the Supervisory Board members were elected are each compared with the respective average for the 90 trading days prior to the Annual Stockholders' Meeting at the conclusion of which the members' terms end. The variable compensation is only payable if the stock has outperformed the benchmark index. The exact amount of the variable compensation depends on the extent to which the stock price outperformed the benchmark index in the preceding five years. If LANXESS stock has outperformed the Dow Jones STOXX 600 ChemicalsSM by up to ten percentage points, the variable compensation amounts to €50 thousand for this five-year period; if it has outperformed the index by between 10 and 20 percentage points, €100 thousand is paid, and if the degree of outperformance is greater than this, the compensation is €150 thousand.

No variable compensation was paid out in fiscal year 2018.

The expected compensation payable for the current terms of office of Supervisory Board members was valued at €1,310 thousand (previous year: €950 thousand) as of December 31, 2018, and recognized as a provision.

None of the members of the Supervisory Board received benefits for services provided personally during the reporting period. No loans or advances were granted to members of the Supervisory Board during the reporting year.

The following table breaks down the compensation received by each member of the Supervisory Board for their work on the Supervisory Board.

Compensation of the Supervisory Board

€ ¹⁾	Year	Fixed compensation LANXESS AG	Compensation as committee member LANXESS AG	Attendance allowance	Fixed compensation LANXESS Deutschland GmbH	Total
Dr. Matthias L. Wolfgruber, Chairman (Chairman as of May 15, 2018)	2018	181,015	52,626	19,500	5,000	258,141
	2017	80,000	40,000	13,500	5,000	138,500
Dr. Rolf Stomberg, former Chairman (resigned May 15, 2018)	2018	88,478	22,120	7,500	1,843	119,941
	2017	240,000	0 ²⁾	16,500	5,000	261,500
Ralf Sikorski, Vice Chairman	2018	120,000	40,000	16,500	5,000	181,500
	2017	120,000	40,000	16,500	5,000	181,500
Werner Czaplík	2018	80,000	40,000	18,000	5,000	143,000
	2017	80,000	40,000	15,000	5,000	140,000
Dr. Hans-Dieter Gerriets	2018	80,000	40,000	18,000	5,000	143,000
	2017	80,000	40,000	15,000	5,000	140,000
Dr. Heike Hanagarth	2018	80,000	–	12,000	5,000	97,000
	2017	80,000	–	9,000	5,000	94,000
Dr. Friedrich Janssen	2018	80,000	105,254	22,500	5,000	212,754
	2017	80,000	80,000	13,500	5,000	178,500
Pamela Knapp (appointed May 15, 2018)	2018	50,507	25,254	10,500	3,157	89,418
	2017	–	–	–	–	–
Thomas Meiers	2018	80,000	40,000	16,500	5,000	141,500
	2017	80,000	40,000	15,000	5,000	140,000
Lawrence A. Rosen	2018	80,000	40,000	18,000	5,000	143,000
	2017	80,000	40,000	13,500	5,000	138,500
Manuela Strauch	2018	80,000	40,000	19,500	5,000	144,500
	2017	80,000	40,000	16,500	5,000	141,500
Iffraim Tairi (resigned December 31, 2018)	2018	80,000	40,000	19,500	5,000	144,500
	2017	80,000	40,000	16,500	5,000	141,500
Theo H. Walthie	2018	80,000	54,746	22,500	5,000	162,246
	2017	80,000	80,000	22,500	5,000	187,500
Total	2018	1,160,000	540,000	220,500	60,000	1,980,500
	2017	1,160,000	480,000	183,000	60,000	1,883,000

1) Figures exclude value-added tax 2) Paid through fixed compensation as per Section 12, Paragraph 2, of the articles of association

REPORT PURSUANT TO SECTIONS 289A, PARAGRAPH 1, AND 315A, PARAGRAPH 1, OF THE GERMAN COMMERCIAL CODE (HGB)

Pursuant to Section 289a, Paragraph 1, Sentence 1, Nos. 1 to 9, and Section 315a, Paragraph 1, Sentence 1, Nos. 1 to 9, of the German Commercial Code, we hereby make the following declarations:

- The capital stock of LANXESS AG amounted to €91,522,936 as of December 31, 2018, and is composed of 91,522,936 no-par bearer shares. All shares carry the same rights and obligations. One vote is granted per share, and profit is distributed per share. The rights and obligations arising from the shares are governed by the German Stock Corporation Act.
- We are not aware of any restrictions affecting voting rights or the transfer of shares. However, shares allocated under employee stock plans are subject to a vesting period before they may be sold.
- We received no reports of direct and indirect equity investments in the capital of LANXESS AG exceeding 10% of total voting rights.
- No shares carry special rights granting control authority.
- Employees hold a direct interest in the capital of LANXESS AG through employee stock programs. There are no restrictions on directly exercising the control rights arising from these shares.
- Sections 84 and 85 of the German Stock Corporation Act and Section 31 of the German Codetermination Act apply to the appointment and dismissal of Board of Management members. Under the provisions of these sections, Board of Management members are appointed by the Supervisory Board for a term not exceeding five years. Such appointment may be renewed or the term of office may be extended, provided that the term of each such renewal or extension shall not exceed five years. Appointments require a majority

of at least two-thirds of the Supervisory Board members' votes. Section 6, Paragraph 1 of the articles of association states that the Board of Management must consist of at least two members. The number of members of the Board of Management is determined by the Supervisory Board. The Supervisory Board may appoint a chairman of the Board of Management and a vice chairman of the Board of Management. Alternative members of the Board of Management may be appointed. The Supervisory Board may revoke the appointment of a member of the Board of Management or the appointment of a member as Chairman of the Board of Management for cause (Section 84, Paragraph 3 of the German Stock Corporation Act).

Section 179 of the German Stock Corporation Act provides that a resolution of the Stockholders' Meeting is required for any amendment to the articles of association. Pursuant to Section 17, Paragraph 2 of the articles of association, resolutions of the Stockholders' Meeting require a simple majority of the votes cast and, if a capital majority is required, a simple majority of the capital stock, unless otherwise required by law or provided by the articles of association. The articles of association contain no further provisions in this regard. Section 10, Paragraph 9 of the articles of association of LANXESS AG authorizes the Supervisory Board to resolve on amendments relating solely to the form of the articles of association.

7. The Board of Management of LANXESS AG has been authorized to issue or repurchase shares as follows:

Own shares

The Annual Stockholders' Meeting of LANXESS AG on May 20, 2016, authorized the Board of Management until May 19, 2021, to acquire shares in the company representing up to 10% of the capital stock and to utilize them for any purpose permitted by law. This authorization may also be utilized by subsidiaries of the company or by third parties on behalf of the company or its subsidiaries. At the discretion of the Board of Management, such shares may be acquired either on the market or via a public tender offer. The Board of Management is authorized to use them for any purpose permitted by law, especially the purposes specifically listed in the authorization. Among other things, it can retire the shares, sell them other than via the stock exchange or an offer to the stockholders, or transfer them against consideration in kind for the purpose of acquiring companies, parts of companies or equity interests in companies or in order to conclude mergers. The Board of Management is further authorized to offer the shares acquired for sale to persons who are or were employed by the company or an affiliated company (employee shares).

Conditional capital

The Annual Stockholders' Meeting of LANXESS AG on May 15, 2018, authorized the Board of Management until May 14, 2023, with the approval of the Supervisory Board, to issue – in one or more installments – warrant bonds and/or convertible bonds, profit-participation rights and/or income bonds or a combination of these instruments (collectively referred to as "bonds") – as either registered or bearer bonds – with a total nominal value of up to €1,000,000,000, with or without limited maturity, and to grant option rights to, or impose exercise obligations on, the holders or creditors of warrant bonds, profit-participation rights with warrants or income bonds with warrants, or to grant conversion rights to, or impose conversion obligations on, the holders or creditors of convertible bonds, convertible profit-participation rights or convertible income bonds with respect to bearer shares of the company representing a total pro rata increase of up to €9,152,293 in the company's capital stock on the terms to be defined for these bonds. Pursuant to Section 4, Paragraph 5 of the articles of association, the capital stock of LANXESS AG is thus conditionally increased by up to €9,152,293 (Conditional Capital).

The conditional capital increase shall only be implemented to the extent that the holders or creditors of, or persons obligated to exercise, warrants or conversion rights pertaining to warrant bonds and/or convertible bonds, profit-participation rights and/or income bonds (or a combination of these instruments) issued by the company or a dependent company against cash contributions, or issued against cash contributions and guaranteed by the company or a dependent company, on or before May 14, 2023, on the basis of the authorization granted to the Board of Management by the Annual Stockholders' Meeting on May 15, 2018, exercise their warrants or conversion rights or, where they are obligated to do so, fulfill such obligation, or to the extent that the company elects to grant shares in the company in place of all or part of the cash amount due for payment. The conditional capital increase shall not be implemented if cash compensation is granted or if the company's own shares, shares issued out of authorized capital or shares in another listed company are used to service the warrant or conversion rights.

The Board of Management is authorized, with the approval of the Supervisory Board, to exclude subscription rights in certain cases which are detailed in the authorization. The Board of Management will consider other capital measures with stockholders' subscription rights disappplied in its decision to disapply stockholders' subscription rights when issuing convertible bonds and/or bonds with warrants, profit participation rights and/or income bonds (or combinations of these instruments). By way of self-commitment, the Board of Management undertakes to perform capital measures with

stockholders' subscription rights disapplied up to a maximum total amount of 20% of the company's current capital stock. This restriction applies when issuing new shares utilizing authorized capital, utilizing treasury shares or issuing bonds with warrants or conversion rights/obligations on the basis of which shares must be issued, with stockholders' subscription rights disapplied in each case. The Board of Management will be bound by this declaration until a future Annual Stockholders' Meeting again resolves to authorize the Board of Management to implement capital measures under exclusion of stockholders' subscription rights.

Authorized Capital I and III

Pursuant to Section 4, Paragraph 3 of LANXESS AG's articles of association, the Annual Stockholders' Meeting on May 15, 2018, authorized the Board of Management until May 14, 2023, with the approval of the Supervisory Board, to increase the capital stock on one or more occasions by issuing new no-par bearer shares against cash and/or contributions in kind up to a total amount of €18,304,587 (Authorized Capital I). Stockholders are generally entitled to subscription rights when Authorized Capital is utilized. However, pursuant to Section 4, Paragraph 3, of LANXESS AG's articles of association and with the approval of the Supervisory Board, the Board of Management can exclude these subscription rights when, for example, the company's capital stock is increased against contributions in kind, particularly for the acquisition of companies. Subscription rights can also be excluded if the issue price of the new shares is not significantly lower than the stock market price at the time the issue price is fixed and the issued shares do not exceed 10% of the company's capital stock.

Furthermore, pursuant to Section 4, Paragraph 4, of LANXESS AG's articles of association, the Annual Stockholders' Meeting on May 26, 2017, authorized the Board of Management until May 25, 2022, with the approval of the Supervisory Board, to increase the company's capital stock on one or more occasions by issuing new bearer shares against cash or contributions in kind up to a total amount of €9,152,293 (Authorized Capital III). Stockholders are generally entitled to subscription rights when Authorized Capital is utilized. Pursuant to Section 4, Paragraph 4, of the articles of association and with the approval of the Supervisory Board, the Board of Management can exclude these subscription rights. It can exclude fractional amounts from the stockholders' subscription rights in the event of capital increases against cash contributions. Subscription rights can also be excluded in the event of capital increases against cash contributions if the issue price of the new bearer shares is not significantly lower than the stock market price at the time the issue price is definitively fixed and the issued shares in total

do not exceed 10% of the company's capital stock. By way of self-commitment, the Board of Management undertakes to perform capital measures with stockholders' subscription rights disapplied up to a maximum total amount of 20% of the company's current capital stock. This restriction applies when issuing new shares utilizing authorized capital, utilizing treasury shares or issuing bonds with warrants or conversion rights/obligations on the basis of which shares must be issued, with stockholders' subscription rights disapplied in each case. The Board of Management will be bound by this declaration until a future Annual Stockholders' Meeting again resolves to authorize the Board of Management to implement capital measures under exclusion of stockholders' subscription rights.

8. The service contracts between the company and the members of the Board of Management of LANXESS AG contain provisions regarding the potential departure of the members of the Board of Management in the context of a change of control. These are outlined in the compensation report in this Combined Management Report. Such agreements, albeit with different terms, also exist between the company and members of the first level of upper management. In addition, the terms for placing bonds under the company's existing debt issuance program may contain a change-of-control clause which gives bondholders the right to redeem the bond should certain events occur that affect its rating. This applies to the €500 million Eurobond issued by LANXESS Finance B.V. in fiscal year 2012 and taken over by LANXESS AG in 2015. The terms for two private placements with a volume of €100 million each made by LANXESS Finance B.V. under the debt issuance program in fiscal year 2012 likewise contain corresponding change-of-control clauses. These placements have now also been taken over by LANXESS AG. Equally, the terms of the bonds with a volume of (i) €500 million (maturity 2021) and (ii) €500 million (maturity 2026) issued by LANXESS AG in fiscal year 2016 and the bonds with a volume of (iii) €500 million (maturity 2025) issued by LANXESS AG in fiscal year 2018 under the debt issuance program contain corresponding change-of-control clauses. The terms of the subordinated hybrid bond with a volume of €500 million also issued by LANXESS AG in fiscal year 2016 contain a change-of-control clause as well. According to these terms, in the event of a change of control and in connection with certain events that affect its rating, LANXESS AG must pay bondholders an increased rate of interest if the company does not make use of the right of termination that is similarly available. The company has entered into an agreement with a syndicate of banks concerning a credit facility with a current volume of €1,250 million. This agreement can be terminated without notice if another company or person takes control of

more than 50% of LANXESS AG. Furthermore, according to agreements between the company and LANXESS Pension Trust e.V., the company is obligated to make considerable payments to LANXESS Pension Trust e.V. in the event of a change of control.

- The service contracts between the company and the members of the Board of Management of LANXESS AG as well as between the company and members of the first and second levels of upper management of LANXESS AG contain compensation agreements applicable in the event of a change of control, as such change is more particularly described in the respective contracts.

REPORT PURSUANT TO SECTIONS 289F AND 315D OF THE GERMAN COMMERCIAL CODE (HGB)

The Board of Management and Supervisory Board have issued the corporate governance declaration pursuant to Section 289f and 315d of the German Commercial Code (HGB). This has been made available to the stockholders and can be found at www.lanxess.com in the Investor Relations section under Corporate Governance.

REPORT ON FUTURE PERSPECTIVES, RISKS AND OPPORTUNITIES

In the economic outlook below, we describe our expectations for economic development. Following the report on future perspectives, we discuss the opportunities and risks which may result in deviations from our predictions.

Economic outlook

Fiscal year 2018 was characterized by fundamentally sound economic growth. The increased uncertainty due to global risks such as trade conflicts, Great Britain's exit from the EU without a deal ("hard Brexit"), budget problems in Italy, Iran sanctions, the currency crisis in Argentina and the trend for the formation of new, populist governments could tarnish the global economy's growth in the reporting year 2019. For Europe, the risk of a no-deal Brexit due to the rejection of the withdrawal agreement is growing considerably. In addition, we believe that an escalation of trade tensions between the U.S., China and Europe would have a significant negative effect on the economic situation.

In fiscal year 2019, we expect moderate growth of 3.0% for the *global economy*, driven mainly by business performance in Asia-Pacific. We see China remaining among the main drivers despite lower growth momentum. With the slightly weaker growth drivers in EMEA (including Germany), we expect economic growth of 1.5% in this region based on 2018.

We expect global *chemical industry* production to expand by 3.5%. Customer industries are becoming more cautious in this volatile environment, while demand from the key customer sectors in the chemical industry, such as agrochemicals and the construction industry, is expected to increase slightly in 2019. For sales in the automotive industry, we likewise expect only slight growth due to a decrease in Chinese demand.

Expected Growth in 2019

Change vs. prior year in real terms (%) ¹⁾	Gross domestic product	Chemical production
Americas	2.5	3.0
EMEA (incl. Germany)	1.5	2.0
Asia-Pacific	4.5	4.0
World	3.0	3.5

1) Rounded to the nearest 0.5%.

Source: LANXESS estimates and IHS Markit

The following table shows the anticipated evolution of our *selling markets*.

Expected Evolution of Major User Industries in 2019

Change vs. prior year in real terms (%) ¹⁾	Automotive	Agrochemicals	Construction
Americas	0.5	3.0	1.0
EMEA (incl. Germany)	0.0	1.0	2.5
Asia-Pacific	2.0	2.0	4.0
World	1.0	2.0	3.0

1) Rounded to the nearest 0.5%.

Source: LANXESS estimates and IHS Markit

Future perspectives

Expected earnings position of the LANXESS Group

We expect our business to develop at around the previous year's level in fiscal year 2019, with a better balanced product portfolio following the sale of the 50% interest in ARLANXEO. The earnings forecast shown below relates to the forecast EBITDA pre exceptionals of the LANXESS Group. A weaker U.S. dollar continues to have a negative effect on our business.

For the Advanced Intermediates segment, we expect business in 2019 to be slightly above the previous year's level overall. The segment continues to benefit from the diversification of the end markets. For our agrochemicals business, we see a slight improvement in customer demand over the course of 2019.

Our Specialty Additives segment is expected to be on a par with or to slightly exceed the previous year's level. The ongoing realization of the announced synergies from the integration of the businesses acquired from the U.S. company Chemtura in April 2017 will contribute to this development.

For our Performance Chemicals segment, we likewise expect business performance to be on a par with the previous year.

Our Engineering Materials segment, which comes from a comparatively high level, is expected to perform slightly weaker than in 2018 due to the expectation that demand will drop, at least temporarily, in the automotive industry in particular.

In the Reconciliation segment, we expect earnings to deteriorate considerably year-on-year due to general inflation of the cost base and remnant costs from the full sale of the synthetic rubber business. The segment also includes currency hedging.

The U.S. dollar will remain the key currency for our businesses.

Against the background of the expected performance of our segments, we expect that EBITDA pre exceptionals for the full year 2019 will be around prior-year level. This includes a positive low-double-digit million earnings effect in euro arising from the application of the new accounting standard for leases, IFRS 16, effective from January 1, 2019. EBITDA pre exceptionals amounted to €1,016 million in fiscal year 2018.

Expected financial position of the LANXESS Group

Liquidity situation

LANXESS will continue to pursue a forward-looking and conservative financial policy in the current year. With around €2.1 billion in cash and undrawn credit lines as of the end of 2018, as described under "Financial condition" in this Management Report, we have a very good liquidity and financing position, which ensures our corporate flexibility to implement our strategy.

Capital expenditures

As in the past fiscal year, our capital expenditures will be primarily directed toward the maintenance of existing production facilities as well as efficiency improvements and the expansion of existing plants. In 2019, we expect total cash outflows for capital expenditures of around €500 million for LANXESS.

Financing measures

LANXESS is in a good position due to the long-term nature of its financing. We have no significant maturities of financial liabilities in fiscal year 2019. We will continue our efforts aimed at securing long-term funding as part of a conservative financing policy.

Expected earnings position of LANXESS AG

In fiscal year 2019, we expect the financial statements of LANXESS AG to show substantially lower net income than in the previous year. The net income of the reporting period was significantly influenced by effects from the sale of the 50% interest in ARLANXEO. Other than by the administration expenses the company incurs in performing its tasks as a management holding company, net income is essentially impacted by the financial result, especially the net interest position and the balance of income and losses from investments in affiliated companies. The balance of income and losses from investments in affiliated companies and the corresponding ability of LANXESS AG to pay a dividend will significantly depend on the profit transfers and dividends paid by the other companies of the LANXESS Group. We will maintain our consistent dividend policy and expect LANXESS AG to report a distributable profit that will enable our stockholders to adequately participate in the LANXESS Group's earnings in the coming year.

Dividend policy

LANXESS has been pursuing a consistent dividend policy for years. Our goal remains to increase the dividend each year or at least to keep it at a stable level. At the Annual Stockholders' Meeting on May 23, 2019, the Board of Management and Supervisory Board will propose a dividend of €0.90 per share for fiscal year 2018.

Summary of the Group's projected performance

We expect our business to develop at around the previous year's level in the current year.

We will be continuing the strategic realignment of the Group in 2019 with the aim of achieving a more stable and less cyclical business profile. LANXESS will continue to work on optimizing its production platform and, as announced, pursue active portfolio management as well as projects geared towards organic growth.

However, we must take the strained geopolitical situation and the associated uncertainties for global economic development into account. Therefore, we currently expect EBITDA pre exceptionals to be around the strong prior-year level.

Opportunity and risk report

Opportunity and risk management system

Our success is significantly dependent on identifying opportunities and risks in our business activities and actively managing them. The goal of the management system is to safeguard the company's existence for the long term and ensure its successful ongoing development by identifying opportunities and risks at an early stage and, depending on their nature, appropriately considering these in strategic and operational decisions. Opportunities and risks are understood as possible future developments or events that may result in either positive or negative deviations from forecasts or business objectives.

Our management system is based both on internal organizational workflows that are managed by way of control and monitoring mechanisms and on early warning systems that are used to closely observe changes in external conditions and systematically implement the appropriate measures. This approach applies equally to opportunities and risks.

Like all methods intended for dealing with business risk, this system does not offer absolute protection. However, it is intended to prevent business risks from having a material impact on the company with a sufficient degree of certainty.

Structural basis

The principles of our opportunity and risk management system are set forth in a Group directive. The management system, which uses the COSO model as the enterprise risk management framework, comprises many different elements that are incorporated into business processes via the company's organizational structure, workflows, planning, reporting, communication systems, as well as a set of detailed management policies and technical standards.

The system is based on an integration concept. In other words, the early identification of opportunities and risks is an integral part of the management system and not the object of a separate organizational structure. The management of opportunities and risks is therefore a primary duty of the heads of all business units, as well as of those people in Group companies who hold process and project responsibility. This is why our opportunity and risk management is based on clearly defined business processes, the precise assignment of responsibilities, and reporting systems that ensure the timely provision of the information required for decision-making for the Board of Management and subordinate management levels.

Roles of key organizational units

Our business units conduct their own operations, for which they have global profit responsibility. Group functions and service companies support the business units by providing financial, legal, technical and other centralized services. Complementing this global alignment of the business units and Group functions, the country organizations ensure the required proximity to markets and the necessary organizational infrastructure.

In line with this division of duties, we have assigned responsibility to risk owners for the following:

- › Identification and assessment of opportunities and risks
- › Implementation of control measures (measures taken to exploit or enhance opportunities and to avoid or minimize risks)
- › Monitoring the development of opportunities and risks (e.g. on the basis of performance indicators and, perhaps also, early warning indicators)
- › Communication of the key opportunities and risks to the management committees of the business units and Group functions

The Corporate Risk Committee, commissioned by the Board of Management and headed by the Chief Financial Officer, is responsible for the structure and implementation of the Group-wide risk management process. It is made up of representatives of selected Group functions and analyzes the principal opportunities and risks and their development from the viewpoint of the entire company. It examines existing measures to counter risks, initiates additional measures as required and instigates further analyses of individual opportunities and risks if necessary.

The Corporate Controlling Group function coordinates the Group-wide risk management process for the Corporate Risk Committee and appoints a Group Risk Management Coordinator for this purpose. This coordinator is responsible for collecting and aggregating key opportunity and risk information across the Group. The short-, medium- and long-term opportunities and risks are identified twice a year in the context of the intrayear forecasting process and the budget and planning process.

The Corporate Development Group function helps with the analysis and evaluation of systematically important and strategic opportunities and risks.

The Corporate Risk Committee has subcommittees made up of representatives of the business units and Group functions that deal with specific risk areas in order to enable a fast and flexible response to changing situations and their impacts. Accordingly, for example, the Financial Risk Committee, headed by the Chief Finance Officer and made up of representatives of the Treasury & Investor Relations Group function, manages transactions centrally, particularly for the transfer of financial but also operating risk (hedging transactions or insurance).

The duty to report opportunities and risks to the Corporate Controlling Group function is based on the anticipated impact on Group net income or EBITDA pre exceptionals. All opportunities and risks must be reported if their anticipated impact is more than €1 million following the implementation of measures. In addition, those risks must be reported which have an anticipated impact that was reduced by more than €10 million through the implementation of measures. These minimum thresholds guarantee that the information gathered about opportunities and risks is comprehensive and that the collection of information is not just limited to material risks or risks that could jeopardize the future of the company as a going concern. Only then, the Corporate Controlling Group function centrally determines the top opportunities and risks.

There is also provision for immediate internal reporting on specific risk issues such as unexpected operational events with an impact of more than €5 million after the implementation of countermeasures.

The reported opportunities and risks are managed by means of risk management software and regularly analyzed for the Corporate Risk Committee, the Board of Management and the Supervisory Board. This ensures that when new opportunities and risks arise or when existing ones change substantially, the necessary information can be communicated promptly to the Board of Management and therefore also be specifically integrated into the general management of the company.

Opportunity and risk assessment

Opportunity and risk management is integrated into the planning and forecasting process and identifies opportunities and risks as potential deviations from planned or forecast EBITDA pre exceptionals or Group net income.

Depending on the type of opportunity or risk, different calculation methods are applied in their assessment. Distribution opportunities and risks are identified on the basis of sensitivities in planning parameters (exchange rates, raw material prices and energy prices). Changes in these variables may result in either positive or negative deviations from planned or forecast figures.

Event-based opportunities and risks (such as the failure of a supplier or the occurrence of an insured event) that would only impact earnings if they actually occurred are evaluated on the basis of the expected probability of their occurrence and effect on EBITDA pre exceptionals or Group net income.

Significance of the Group-wide planning process

Corporate planning is a core element of our opportunity and risk management. Events with a high probability of occurrence flow directly into the planning process. The processes for corporate planning and intrayear forecasting as well as the corresponding analyses and suggestions for action are steered by the Corporate Controlling Group function, which works closely in this regard with the business units. Certain Board of Management meetings are dedicated to discussing and adopting corporate planning

outcomes, including the associated opportunities and risks. We monitor, and if necessary adjust, the annual budget in any given fiscal year by regularly updating our expectations for business development.

Compliance as an integral component

Risk management also includes preventing illegal conduct by our employees. To this end, we obtain extensive legal advice concerning business transactions and obligate employees by means of our "Code of conduct – Code for integrity and compliance at LANXESS" to observe the law and our internal directives and to act responsibly. The compliance code is part of a comprehensive compliance management system (CMS) that has been structured in accordance with the principles of an internationally recognized framework for enterprise risk management (COSO). This CMS is supported by the compliance organization, which is made up of the Group Compliance Officer and a network of local Compliance Officers in the countries in which we have subsidiaries. The objective of the CMS is to ensure the observance of our compliance principles. The Compliance function, which includes the global compliance organization, reports directly and regularly to the Board of Management.

(Group) accounting aspects of the internal control and risk management system

The aspects of the internal control and risk management system relating to the (Group) accounting process include the principles, procedures and measures required to ensure the effectiveness, efficiency and propriety of the company's accounting, and compliance with applicable legal regulations. To this end, clear organizational, control and monitoring structures have been established. The distinctive features of the chemical industry and the risk management tools we regularly use in this regard are taken into account. In addition to the (Group) accounting process in its narrower sense, this also includes the aforementioned structured budget and forecasting process, and extensive contract management. However, the effectiveness and reliability of the internal control and risk management system can be restricted by discretionary decisions, criminal acts, faulty controls or other circumstances. Thus, even if the system components used are applied Group-wide, the correct and timely recording of (Group) accounting issues cannot be guaranteed with full assurance.

The Accounting Group function, which reports to the Chief Financial Officer, is responsible for the (Group) accounting process and therefore for preparing the annual financial statements of LANXESS AG and the consolidated financial statements of the LANXESS Group. It is also responsible for ensuring the uniform preparation of the financial statements of the subsidiaries that are included in the consolidated financial statements. The Board of Management prepares the annual financial statements and the consolidated financial statements, which are then forwarded to the Supervisory Board's Audit Committee without delay. Upon

recommendation by the Audit Committee, the annual financial statements and the consolidated financial statements are adopted and approved by the Supervisory Board at its financial statements meeting. The Supervisory Board, and especially its Audit Committee, deal with major questions relating to LANXESS's accounting, opportunity and risk management, the audit mandate and the areas of focus for the auditor's audit of the annual financial statements.

Quarterly statements are prepared for the first and third quarters. The condensed consolidated interim financial statements as of June 30 that are also prepared are reviewed, while the annual financial statements and the consolidated financial statements are subjected to a full audit by the auditor of the company's annual financial statements and consolidated financial statements.

Our accounting in compliance with the German Commercial Code is based on a structured process with appropriate organizational structures and workflows, including the related working instructions. In addition to the segregation of duties, the dual-control principle and continual plausibility testing serve as fundamental monitoring tools during the financial statement preparation process. On the IT side, the accounting process is supplemented by an integrated IT system that is based largely on off-the-shelf software and is protected by security measures against unauthorized access. The correctness of the automatically generated postings and the master data required for them is regularly reviewed. Manual postings are based on a systematic voucher system, documented to the necessary extent and verified downstream.

The foundation for uniform and IFRS-compliant consolidated financial reporting at LANXESS is the Group Financial Statements Guideline. This governs the way the provisions of the International Financial Reporting Standards (IFRS) applicable to the Group are applied by the subsidiaries as reporting entities. Moreover, the guideline also defines the chart of accounts that is binding throughout the Group. On the IT side, the guideline is supplemented by a uniform, Group-wide delivery and consolidation system that is based largely on off-the-shelf software and is protected by security measures against unauthorized access.

By controlling and monitoring LANXESS's (Group) accounting process, we ensure that generally accepted accounting practices in line with the applicable laws and standards are applied and guarantee reliable financial reporting. The (Group) accounting-related internal control system we use is based on generally accepted standards (COSO model). There were no material changes to this system during the reporting period. Corresponding standards also apply to the single-entity financial statements of the subsidiaries.

Preparation of the consolidated financial statements is based on a detailed process that includes specifying a financial statement calendar containing deadlines for the delivery of certain data. A further component is regular reviews of the correctness and completeness of the scope of consolidation. The principle of the segregation of duties as expressed in structured authorization and approval procedures and the dual-control principle as well as continual plausibility testing on data is applied end-to-end throughout the preparation and consolidation process.

For the consolidated financial statements, all subsidiaries subject to reporting requirements transmit their Group reporting data using the above-mentioned consolidation system. Validation rules integrated into the system ensure on delivery that the data reported by the subsidiaries are consistent. The accounting departments of the subsidiaries are responsible for ensuring the correctness of the reported data content, which is also tested by the Corporate Accounting Department within the Accounting Group function. To this end, the department evaluates standardized reports in which the companies explain material facts relevant to financial reporting. After the process-based controls have been applied, consolidation including currency translation is carried out in the same system, without additional interfaces, utilizing both automated and manual procedures. The correctness of the automated consolidation steps and of the master data necessary for this purpose is reviewed regularly. Consolidation information that must be entered manually is posted separately, documented to the extent required and verified downstream. This is supplemented by validation rules that are integrated into the system.

Regular coordination with other financial Group functions, particularly the Treasury & Investor Relations, Tax & Trade Compliance and Corporate Controlling Group functions, assists the financial reporting process. A continual exchange of information with the operating business units and other Group functions makes it possible for the Accounting Group function to identify and deal with issues arising outside of accounting processes. These include litigation risks, projections for impairment testing and special contractual agreements with suppliers or customers. In addition, third-party service providers are consulted on special issues, particularly relating to the valuation of pensions and other post-employment benefits.

Monitoring of risk management system and internal control system (ICS)

LANXESS’s Corporate Audit Department within the Legal & Compliance Group function oversees whether the internal control and monitoring system works and whether organizational safeguards are being observed. The planning of audits (selection of audit subjects) and the audit methods applied are correspondingly aligned with risks. To assess the effectiveness of the ICS, an annual self-assessment is also carried out in major Group companies, operating units and Group functions. The Supervisory Board exercises control functions, including regular monitoring of the efficiency of the management systems described above by the full Supervisory Board and by its Audit Committee. The Audit Committee reviews reports about the Compliance function’s activities and findings, the work of the Corporate Audit Department, and the status of the risk management and internal control systems. In addition, the early warning system is evaluated by the external auditor as part of the audit of the consolidated and annual financial statements.

Opportunities and risks of future development

Full identification of the LANXESS Group’s opportunities and risks is performed on the basis of a catalog of categories, which are summarized in the eight groups below:

Categories

Procurement markets
Human resources
Production and technology
Safety and the environment
IT and security
Sales markets
Finance
Legal and country-specific environment and compliance

Subsequent reporting in respect of the main categories is generally based on a planning horizon of one year.

Procurement markets

On the procurement side, the principal opportunities and risks lie in the high volatility of raw material and energy prices. An increase or decrease in the price of the materials we use directly results in higher or lower production costs. If prices decrease, write-downs may have to be recognized on inventories. In addition, changes in raw material prices result in higher or lower selling prices – either immediately or after a delay. We mitigate situations like this by following a sensible inventory and procurement policy. Most of the company’s raw material and energy needs are met by long-term supply contracts and contracts containing price

escalation clauses. On the selling side, equivalent agreements are in place. We also have the option of hedging this risk via derivatives transactions if liquid futures markets are available for hedging raw material and energy price risks. Further information can be found in the “Finance” section of this opportunity and risk report. Additionally, we are constantly looking for ways to use our resources more efficiently so that we can offset higher costs by raising productivity. Unfulfilled acceptance obligations may result in unscheduled costs due to fines. To guard against possible supply bottlenecks due to factors such as the failure of a supplier or of an upstream operation at a networked site, we pursue an appropriate inventory strategy and line up alternative sources of supply. Failures can be caused by factors such as inadequate maintenance or insolvencies at the supplier end. We endeavor to avoid supply bottlenecks or reliance on individual suppliers using strategies like multiple sourcing. If we were to be forced to utilize alternative sources of supply in the context of contingency plans, this could result in, for example, higher procurement prices or additional transportation costs.

Logistics, both of the goods and services that we purchase and of those that we provide or render, is subject to increasing complexity. We counter challenges such as the low water levels on the Rhine with the coordinated management of our supply processes and can thus minimize the risk of unplanned production downtime. Furthermore, the quality of the supplied raw materials constitutes a risk factor that may negatively affect the quality of our products. Detailed product specifications issued by us define the properties to be fulfilled by suppliers and are checked via ongoing goods-in analyses.

Human resources

We see an opportunity in the implementation of our performance culture, with which we aim to establish a corporate culture based on shared values via wide-ranging measures and in which responsible and morally irreproachable actions and striving for performance do not contradict each other. We assume that this will lead to increased employee motivation and therefore better performance. By strengthening the corporate culture in this way, we aim to achieve greater employee satisfaction and increased employee loyalty.

With the transformation project launched in 2017 in HR, we are seeking to make our processes and systems even more efficient. We see this project as an opportunity to raise quality standards in HR, improve service and reduce the volume of work for our employees and managers. In the future, we will be able to provide more targeted support for our corporate strategy and respond to HR trends more quickly and effectively by restructuring our HR organization and launching state-of-the-art products and solutions in HR.

Changes always entail the risk of demotivating employees and reducing their performance. This can be significant if employees do not feel sufficiently involved in decision-making processes or do not understand new processes and practices. Thanks to a targeted change management strategy, we counter this risk by communicating next steps and forthcoming measures as clearly and early as possible. This is supplemented by training measures, particularly in the area of management in the context of the performance culture described above.

The risk of walkouts in connection with negotiations concerning future collective pay agreements or associated with restructuring measures cannot be ruled out. We also face increases in our *personnel expenses* because of future wage increases. Such an increase in the cost of human resources can be just as detrimental to earnings as increases in raw material prices, as described above, but in the case of human resources we cannot hedge the risk in futures markets or pass it on to our customers. We counter this risk by fostering open communication with our employees and their representatives in a culture of active labor relations. Particularly with regard to the challenges in the working world from globalization and increasing digitalization, we make continuous use of existing dialog platforms such as the European Forum, which brings together the works councils in Europe. We also actively seek dialog with the representatives of our employees, the trade unions and other interest groups in the other regions in which we operate, particularly concerning the acquisition and integration of companies. We use legally sound and proven employment contracts and ensure legally secure collective agreements. When making acquisitions, we give high priority to professional project management, detailed communication with employees, fair consolidation processes and appropriate severance packages. In the event of potential legal action, the HR department monitors the situation very closely in coordination with the Legal and Communication departments to enable agreements to be reached at an early stage.

Our employees' expert knowledge of internal processes and issues relating to their areas of specialization is a critical factor in the efficiency of our business operations. To mitigate the risk of a manpower shortage on the one hand and a loss of knowledge on the other hand, we help our employees to find an improved work-life balance as well as offer attractive remuneration models, challenging tasks and international career opportunities. In addition, we deal with structured succession planning at annual HR development conferences. To maintain constant contact with outstanding employees and support them in line with their individual needs, we have established a professional performance management system worldwide with the Performance Dialog.

The growing lack of *skilled employees* in particular in our markets is a problem for us, primarily in Germany. Specifically, we see the risk of a shortage of skilled chemical production technicians and chemical laboratory assistants as well as skilled employees in other fields such as IT. Regular HR development conferences help us to hone in-house skills. In addition, we continue to invest in the next generation of employees, either by increasing the number of training opportunities in various areas in Germany or through internship programs or our corporate trainee program, which is well established in terms of fostering upcoming management talents. Externally, we maintain intensive cooperations with research institutes, universities, colleges and high schools in Germany, as well as with public-sector entities both in Germany and all other key target markets. At many events and conferences around the world, we have positioned our company as an attractive employer and continue to seek early contact with highly talented young people. In Germany, where we have the largest headcount, we have established a LANXESS program to provide both financial and expert support for undergraduate and postgraduate students. We are also extending our loyalty program for particularly outstanding interns. Both these programs focus on the natural and engineering sciences.

In terms of demographic change and the associated aging of the population, along with a shortage of qualified specialist employees, there is also the risk of health-related absence as well the risk of outdated knowledge or loss of knowledge. We see this as a medium-term and long-term risk, which is why we set up the extensive demographic program XCare back in 2011 to counter the challenges of demographic change in a structured way. The program, originally designed and implemented for our German companies, is currently being rolled out globally. A whole host of initiatives have been initiated and implemented since the program was launched. For example, around 80 demography positions (for chemical production technicians and engineers) have been created, additional training courses have been developed, workplace reintegration programs have been stepped up (reintegration after illness) and workplace healthcare offerings have been expanded (for example, through the introduction of a digital health platform).

Production and technology

A lack of plant availability due to disruptions can make it impossible for us to meet production targets and adequately service demand, resulting in a loss of marginal income. We use a comprehensive range of measures to counter this scenario. These include proactive facility maintenance, systematic training of our employees and regular audits to analyze weak points. Systematic safety appraisals and risk assessments also contribute to improving plant and process safety. Implementation and application of the various measures are subject to global compliance checks. We also counter the risk of production stoppages by manufacturing certain products at various sites worldwide.

Unlocking and exploiting operational opportunities is an important aspect of our entrepreneurial activities. We are committed to using existing products and new solutions to advance our growth and sustainably strengthen our position in global markets. *Investing* in new plants as well as expanding the capacities and increasing the productivity of existing ones are key elements in these efforts. The anticipated effects are taken into account in our planning or are reported as opportunities. In principle, we expect investments to yield benefits but they are also coupled with risks. For example, the success of our investments in Asia has been substantially impacted by increasingly challenging trade relations between the U.S. and China. The preparatory work for investments that exceed a specified significance threshold is the responsibility of the relevant business units. After review by an Investment Committee set up for this purpose, the information is presented to the Board of Management for a decision. By following this procedure, we ensure that investments are in line with our corporate strategy and satisfy our profitability and security requirements.

Sales and earnings effects expected from our investments and from acquisitions completed by the reporting date are already considered in our forecasts. These targeted investments may also generate further operational opportunities because they enable us to unlock new potential and improve our positioning in key markets.

Safety and the environment

Although LANXESS applies high technical and safety standards to the construction, operation and maintenance of production facilities, *interruptions in operations* – including those due to external factors such as natural disasters or terrorism – cannot be ruled out entirely. These could lead to fires and explosions, the release of materials hazardous to health or accidents in which people, property or the environment are harmed. In addition to systematically monitoring compliance with quality standards in order to avoid such stoppages and accidents, we are also insured against the resulting damage to the extent usual in the industry.

In addition, risk engineering professionals commissioned by the insurance companies perform regular inspections of our sites.

Our product portfolio includes substances that are classified as hazardous to health. To prevent possible *harm to health*, we systematically test the properties of our products and draw our customers' attention to the risks associated with their use in the context of our Responsible Care® activities. We also carry product liability insurance that is customary in our industry.

In line with our forward-looking approach, product monitoring enables us to identify and evaluate potential hazards associated with our product portfolio and initiate suitable measures if applicable.

Regulatory measures may lead to the tightening of safety, quality and environmental regulations and standards in different areas. These may result in higher costs, production bans and liability risks. Particularly noteworthy in this regard is the implementation of the E.U. Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). As well as direct costs that could arise due to additional measures necessary to comply with these standards, market structures could change to our disadvantage as a result of a shift by suppliers and customers to regions outside Europe. Additional requirements imposed by *energy and environmental policy* such as the new emissions trading regulations, new environmental taxes and the redistribution of costs associated with the German Renewable Energy Act could result in higher costs and in part substantial disadvantages in international competition. With a view to mitigating this risk, we engage in active energy management to reduce the consumption of energy. We are also discussing the economic consequences of increasing energy prices with the authorities and government – either directly or in cooperation with other energy-intensive companies via industry organizations.

LANXESS was and is responsible for numerous sites at which chemicals have been produced for periods that in some cases exceed 140 years. This responsibility also extends to waste disposal facilities. The possibility cannot be ruled out that ground pollution occurred during these periods that has not been identified to date. We are committed to the Responsible Care® initiative and pursue active environmental management and proactive environmental protection management. This includes constant monitoring and testing of the soil, groundwater and air as well as of various emissions. We have set up sufficient provisions for necessary containment or remediation measures in areas with identified contamination. Additional information on our environmental provisions can be found in [Note \[15\], "Other non-current and current provisions,"](#) to the Consolidated Financial Statements.

IT and security

Our IT systems are part of the value chain and support our global business activities with standardized processes. We aim to provide efficient, stable and scalable IT services. We support this by developing a uniform, integrated system architecture and investing in the expansion and modernization of our IT services worldwide.

The operation and use of IT systems entails risks. For example, networks or systems may fail, or data and information may be compromised or destroyed because of operator and programming errors or external factors. In particular, we are observing a growing threat to our IT infrastructure resulting from outside attack (cyber risks). All these can cause serious business interruptions and reputational damage, which is why we invest in data protection systems designed to prevent the loss of data and information. Various security and monitoring tools and access restriction and authorization systems are used to ensure the integrity, confidentiality and availability of data and information and the trouble-free operation of systems. To improve the security of the IT infrastructure, our security measures are subject to regular checks and evaluations. Where necessary, these measures are upgraded. To protect against threats, new security systems are implemented and adapted in line with the current threat level. To protect against cyber risks, LANXESS has also concluded a cyber insurance policy. We regularly train the users of our IT systems on IT risks, appropriate conduct and preventive measures. We conduct security campaigns to raise awareness of current issues surrounding IT security.

Sales market

Our company is inherently exposed to general economic developments and to political and geopolitical change in the countries and regions in which we operate. We see the growing global tendency toward protectionist measures, which would also impact the chemical industry in particular, as a medium-term risk to growth and stability. The value chains in the chemical industry are highly interconnected and on a global scale. Increased protectionism would have a negative impact on growth. Regional differences in economic performance and the associated demand trends can affect the Group's pricing and sales potential in its various geographical markets, with corresponding positive or negative effects on its earnings. Our global presence, which we are continuing to expand in growth markets, enables us to participate in favorable regional developments and, at the same time, reduce our dependence on certain regions. This approach is discussed in further detail in the "Strategy" section of this Management Report.

The volatility and cyclical nature that are typical of the global chemical and polymer markets and their dependence on developments in customer industries harbor uncertainties for our business. Additional and unplanned sales opportunities may arise through access to new markets or the acquisition of new customers. In addition to being subject to these demand-side market influences, our earning power can be impacted by structural changes in markets, such as the exit of existing competitors or the entry of new ones and the availability of additional capacity, regional shifts, the migration of customers to countries with lower costs, and product substitution or market consolidation trends in some sectors. We counter such trends by systematically managing costs and continuously adjusting our product portfolio, sharpening its focus and aligning our offering with innovative customer segments, which will enable us to operate successfully in the long term.

Finance

The Treasury & Investor Relations Group function has the task of centrally recording and managing financial opportunities and risks. Chief among these are:

Financial Opportunities and Risks

Price changes	Liquidity and refinancing	Counterparty risks	Capital investments
Currencies	Availability of cash	Customers	Investments in pension assets
Interest rates	Access to multi- and bilateral capital markets	Banks	
Raw materials			
Energies			

At regular strategy meetings of the Financial Risk Committee chaired by the Chief Financial Officer, there are reports on the outcome of financial risk management, the current risk and further action. The aim of financial risk management is to identify and evaluate risks so that their impact can be controlled and, if necessary, limited.

Price changes

Currencies

Since the LANXESS Group undertakes transactions in various currencies, it is exposed to fluctuations in the relative value of these currencies. Associated risks are partly hedged insofar as they are cash-effective. Fixed exchange rates were used in our planning for fiscal year 2019. The development of the U.S. dollar against the euro is of particular relevance. An appreciation of the U.S. dollar compared with the exchange rate used in planning would have a positive effect on our planned EBITDA pre exceptionals (and vice versa).

Currency risks from potential declines in the value of financial instruments due to exchange rate fluctuations (transaction risks) arise mainly when receivables and payables are denominated in a currency other than the company's functional currency. Such risks are always fully hedged. Likewise, currency risks arising from financial transactions, including the interest component, are generally fully hedged through forward exchange contracts. In the short term, therefore, the appreciation or depreciation of the euro against other major currencies can have no material impact on future cash flows. In addition, translation risks exist from converting entries in the financial statements from local currencies into euro for inclusion in the LANXESS consolidated financial statements. Unlike the effects of exchange rate fluctuations in the case of the transaction risk, the translation risk has no impact on the company's cash flows in local currencies. In addition, material assets and liabilities in local currencies are subject to a long-term currency risk, which is regularly estimated and evaluated. However, currency hedging is only undertaken if LANXESS is considering withdrawal from certain businesses and intends to repatriate the funds released as a result.

The opportunities and risks relating to operating activities are systematically monitored and analyzed. To this end, both sales and costs are planned in foreign currencies. In the long term, exchange rate fluctuations could adversely affect future cash flows should the LANXESS Group not be able to counter them, for example, by pricing its products in the respective local currencies. This risk is minimized by partial hedging with derivative financial instruments. Hedging is performed in line with principles determined by the Board of Management and is subject to continuous monitoring. We have already entered into hedging transactions for 2019, 2020 and 2021 to mitigate the effects of currency fluctuations.

Interest rates

Market interest rate movements can cause fluctuations in the fair value of a financial instrument. They affect both financial assets and financial liabilities.

Since the majority of financial liabilities were entered into at fixed interest rates, changes in interest rates in the coming years will have only a limited impact on the LANXESS Group.

In the context of long-term planning, LANXESS regularly decides on refinancing to cover the forecast liquidity requirement.

Raw materials/energy

In the course of its business operations, the LANXESS Group is exposed to changes in the market prices for energy and raw materials. As a rule, these changes are passed on to customers. Where certain market-price risks for energy and raw materials cannot be passed on to customers in their entirety, they may be

hedged on a case-by-case basis by forward commodity contracts in order to reduce the volatility of cash flows. LANXESS had only a small number of forward commodity contracts as of the reporting date.

Liquidity and refinancing

We ensure our access to the capital markets and our solvency through a conservative financing policy and a target capital structure that is largely based on the ratio systems used by leading rating agencies. Our conservative financing policy takes into account the risk of a change to our rating and the associated effects on financial risk management, even though LANXESS has no direct influence on the assessments by independent rating agencies.

Our main liquidity reserve is a €1.25 billion syndicated credit facility, which remained largely undrawn on the reporting date. The term was extended on the basis of a contract option by one year to May 2023. In addition to credit facilities, the Group has short-term liquidity reserves of €797 million in the form of cash and cash equivalents. Accordingly, the LANXESS Group has a liquidity position based on a broad range of financing instruments.

Counterparty

Counterparty risks (credit risks) arise from trade relationships with customers and dealings with banks and other financial partners, especially with regard to the investment business and financial instrument transactions.

Customer risks are systematically identified, analyzed and managed using both internal and external information sources. Customer portfolios may be insured against credit risks, especially where the risk profile is elevated.

The objective of receivables management at LANXESS is to collect all outstanding payments punctually and in full, and thus to minimize the risk of default. Continuous monitoring is computer-assisted, based on the payment terms agreed with the customers. These are generally based on the customary payment terms for the business or country. Reminders are sent out at regular intervals if payments are overdue. The maximum risk of default on receivables, cash and cash equivalents, near-cash assets, derivatives and other financial assets is reflected in their carrying amounts in the statement of financial position (disregarding netting arrangements not reflected in the statement of financial position).

Credit risk relating to receivables from customers is covered by opening letters of credit in favor of the LANXESS Group for some customers and by agreeing prepayment with contractual partners. In addition, LANXESS has a contractually agreed title to goods until the contractual partner has paid the full purchase price. The vast majority of receivables relate to customers with very high credit standing.

The creditworthiness of the counterparty is a key criterion in the financial policy and credit risk management of the LANXESS Group, especially in the selection of banks and financial partners for capital investments and transactions involving financial instruments. LANXESS therefore endeavors to undertake transactions with banks and other financial counterparties that have at least an investment-grade rating.

Credit risk management also includes global management of the counterparty risk relating to all existing relationships with banks and financial partners. The LANXESS Group pays particular attention to risk diversification to prevent any cluster risks that could jeopardize its continued existence. Through master agreements, the market values of open trading positions can be netted if a partner becomes insolvent, thereby further reducing risks.

Capital investments

Opportunities and risks associated with the investment of pension assets are monitored by the Pension Committee, which is made up of the Chief Financial Officer and representatives from the Treasury & Investor Relations, Accounting and Human Resources Group functions.

Legal and country-specific environment and compliance

We actively pursue the strategic optimization of the enterprise. Our efforts include ongoing efficiency enhancement, optimization of opportunities and risks, strengthening of core businesses, active portfolio management and proactive participation in industry consolidation through partnerships, divestments and acquisitions. Further information can be found in the "Strategy" section of this Management Report.

The success of the decisions associated with these efforts is naturally subject to forecasting risk with respect to predicting future (market) developments and the feasibility of planned measures. For example, the entry into or exit from a business segment could be based on profitability or growth expectations that prove to be unrealistic over time. We mitigate this risk by carefully and systematically analyzing the information that is relevant to decision-making and regularly checking developments. During this process, the business units affected and the Board of Management receive support from departments with the requisite expertise and, if necessary, from external consultants.

When information is gathered in the context of acquisitions, it is possible that certain facts required to assess an acquisition candidate's future performance or to determine the purchase price are not available or are not correctly interpreted. We address this risk by conducting well-structured due diligence analyses and, where possible, by concluding appropriate residual risk-minimizing agreements with the sellers. Insufficient integration of acquired

companies or businesses can result in the expected value added not being generated. For this reason, we have processes in place with which full integration of acquired businesses is assured. If assumptions concerning future developments – such as the realization of synergies – do not materialize, this might result in a write-down on assets. We monitor this risk by carrying out impairment testing at least once a year. The risk of the need to carry out impairment of assets is assigned to the finance group.

Companies in the LANXESS Group are subject to legal risks and are parties to various litigations. The outcome of individual proceedings cannot be predicted with assurance due to the uncertainties always associated with legal disputes. To the extent necessary in light of the known circumstances in each case, we have set up risk provisions for the event that the outcome of such proceedings is unfavorable to LANXESS. Taking into account existing provisions and insurance, as well as agreements reached with third parties in respect of liability risks arising from legal disputes, it is currently estimated that none of these proceedings will materially affect our planned EBITDA pre exceptionals.

As an approach to avoiding legal risks, LANXESS has established an extensive compliance management system (CMS) incorporating a range of preventive organizational measures. Among the risks LANXESS has identified are those relating to antitrust legislation and plant safety/environmental protection. Within the framework of the CMS, these issues are assigned as specific responsibilities to different Group functions that have established relevant compliance programs. In connection with risks relating to antitrust legislation, for example, LANXESS has developed a program that combines classroom training and e-learning to ensure compliance with competition law. In this way, our employees and managers are schooled in the particular risks pertaining to their areas of business and made aware of their significance. This training is performed and documented at regular intervals. Our employees can also contact designated experts in the Legal & Compliance Group function if they have any specific questions. Further information can be found in the "Compliance as an integral component" section of this opportunity and risk report.

Any violations of foreign trade regulations may result in prohibitions and restrictions on LANXESS's export activities and the loss of its privileges with respect to export procedures. In individual cases, this may also result in fines, trade sanctions and loss of reputation. The LANXESS Group ensures compliance in foreign trade and export control through the global implementation and optimization of appropriate and stable control instruments and automated screening processes. By proactively monitoring trade policy developments, timely information is provided to both the operating units and the management organs concerning changes to foreign trade and the associated opportunities and risks, and appropriate recommendations for action are made.

Tax matters are subject to a degree of uncertainty in terms of their assessment by the tax authorities in Germany and other countries. Even if we believe that all circumstances have been reported correctly and in compliance with the law, the possibility cannot be ruled out that the tax authorities may come to a different conclusion in individual cases.

In the context of risk and opportunity management, we have also been assessing the impact of a possible **Brexit** on our business activities. In response, we have established a cross-disciplinary team of experts tasked with, among other things, safeguarding our supply chains and, if necessary, adjusting our internal processes. We are also preparing the necessary steps for the potential departure of Great Britain from the customs union and regarding the regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). To ensure standard delivery times even in the event of a possible hard Brexit, we have already implemented a number of preparatory measures including stocking up inventories and ensuring the constant sharing of information with customers and suppliers. Thanks to this thorough preparation and the fact that only a small proportion of our total sales are made in Great Britain, we are confident that a hard Brexit will not have any significant, negative impact on our business. Despite everything, however, a conclusive assessment of the political framework and the associated implications of Brexit is not currently possible.

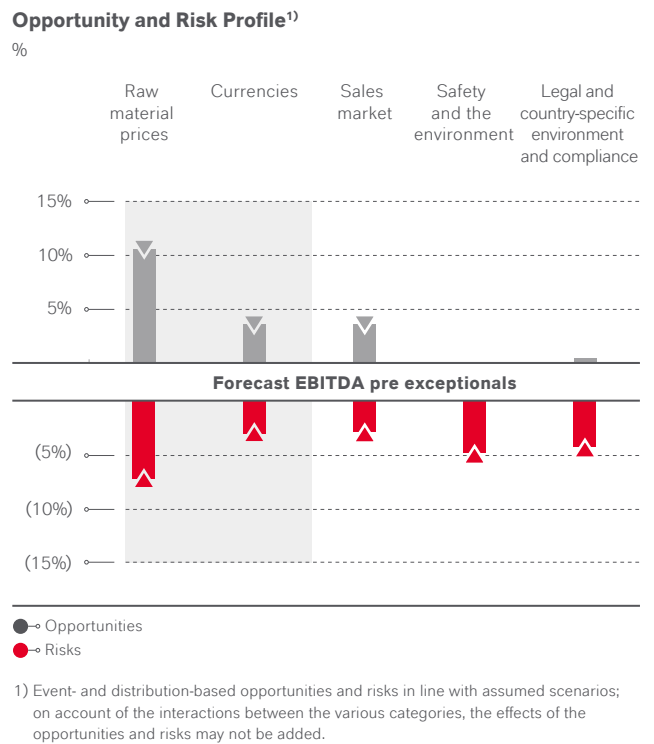
Furthermore, we have investigated the impact of an escalating **trade conflict** between China and the U.S. on LANXESS. The assessment found that only very isolated products in our portfolio are affected, and that there is only a low level of goods flows from China to the U.S. For this reason, the direct consequences of the conflict are not expected to have a significantly negative impact on our operations.

Significance of opportunities and risks and result of opportunity and risk assessment

The opportunities and risks of future development that we identify are categorized and grouped, as described above. The significance of the opportunities and threats lies in their potential impact on planned EBITDA pre exceptionals for the LANXESS Group. Individual categories in which the opportunity or risk may produce a deviation of more than 5% from our projected EBITDA pre exceptionals in the planning year are considered to be of medium to high significance. This also applies to groups in which this threshold is exceeded only on a cumulative basis across all the categories assigned to each group.

Within the context of opportunity and risk management for the planning year, the raw material prices category was considered to be of medium to high significance. Based on the scenarios applied or the assumed probability of occurrence, this category could produce a positive deviation of 11% and a negative deviation of 7% from our projected EBITDA pre exceptionals, which is our key controlling parameter.

Even though all other categories or groups apart from the raw materials prices category in the procurement markets group are of little importance to opportunity and risk reporting for 2019, possible positive and negative deviations from targets are also set out below for the categories and groups that were significant in the past:



Summary of overall opportunities and risks

The chemical industry worldwide continues to operate in an environment characterized by increasing complexity and a rapid pace of change, which naturally entails economic opportunities and risks. A clear strategic framework, a balanced positioning, an agile organization and, last but not least, a corporate culture based on shared values, however, gives us the headroom we need to remain effective and competitive even in the evolving operating environment. In addition, this will allow us to leverage strategic and operational opportunities and to make maximum use of growth potential. The sale of our 50% share in ARLANXEO in the reporting year helped us to drive forward the strategic realignment of the Group. In taking this step, we have significantly reduced our dependency on the volatile tire and automotive industry. In the previous year, we had already significantly expanded our portfolio of specialty additives and strengthened our regional presence in North America with the acquisition of Chemtura. We will continue to pay particular attention to maintaining a balance in our portfolio. First, we must further reduce our economic dependency on individual sectors or correlating markets by increasing our presence in attractive customer industries. Second, we want to achieve a better regional balance within our portfolio by continuously increasing the share of sales in the growth markets of Asia and North America. In February 2018, we successfully purchased the U.S. phosphorus chemicals business from the Belgian chemicals group Solvay, including its U.S. production site in Charleston. In the previous year, we acquired the biotech startup IMD Natural Solutions, which focuses on the research and development of natural substances with an antimicrobial effect for the food and beverage industry. We see an opportunity here to further expand our material protection and disinfection portfolio. Together with the Canadian company Standard Lithium, our U.S. site in El Dorado is currently examining the technical and economic feasibility of producing battery-ready lithium from brine. Our risk exposure during the reporting year improved compared with the previous year due to our broadly diversified product and customer portfolios.

All planning is subject to a certain degree of forecasting risk, which could necessitate flexible adjustments to rapidly changing business conditions over the course of the year. This is particularly true in view of the fact that planning and forecasts in general is somewhat less reliable, for example due to the changes in our procurement and customer markets.

The economic ramifications of Brexit are an uncertainty factor.

In light of our present financing structures, our sound liquidity position and the headroom created by our realignment and in particular by the changes to our Group portfolio, we are confident of managing any risks that arise in the future.

Based on an overall evaluation of risk management information, the Board of Management at the present time cannot identify any sufficiently likely risks or risk combinations that would jeopardize the continued existence of LANXESS.

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Statement of Financial Position

LANXESS Group

€ million	Note	Dec. 31, 2017	Dec. 31, 2018
ASSETS			
Intangible assets ¹⁾	(1)	1,784	1,764
Property, plant and equipment	(2)	4,059	2,577
Investments accounted for using the equity method	(3)	0	0
Investments in other affiliated companies	(4)	9	2
Non-current derivative assets	(5)	7	0
Other non-current financial assets	(6)	20	25
Non-current income tax receivables	(7)	20	14
Deferred taxes	(29)	442	287
Other non-current assets	(8)	113	117
Non-current assets		6,454	4,786
Inventories	(9)	1,680	1,347
Trade receivables	(10)	1,316	903
Cash and cash equivalents		538	797
Near-cash assets	(11)	50	–
Current derivative assets	(5)	45	4
Other current financial assets	(6)	7	598
Current income tax receivables	(7)	47	55
Other current assets	(12)	274	197
Current assets		3,957	3,901
Total assets		10,411	8,687
EQUITY AND LIABILITIES			
Capital stock and capital reserves		1,317	1,317
Other reserves		1,381	1,391
Net income		87	431
Other equity components		(498)	(359)
Equity attributable to non-controlling interests		1,126	(7)
Equity	(13)	3,413	2,773
Provisions for pensions and other post-employment benefits	(14)	1,490	1,083
Other non-current provisions	(15)	460	337
Non-current derivative liabilities	(5)	2	3
Other non-current financial liabilities	(16)	2,242	2,686
Non-current income tax liabilities ¹⁾	(17)	134	117
Other non-current liabilities	(18)	99	80
Deferred taxes	(29)	113	89
Non-current liabilities		4,540	4,395
Other current provisions	(15)	525	465
Trade payables	(19)	1,048	795
Current derivative liabilities	(5)	12	25
Other current financial liabilities	(16)	633	59
Current income tax liabilities	(17)	61	44
Other current liabilities	(18)	179	131
Current liabilities		2,458	1,519
Total equity and liabilities		10,411	8,687

1) Prior-year figures restated

Income Statement

LANXESS Group

€ million	Note	2017	2018
Sales	(21)	6,530	7,197
Cost of sales	(22)	(4,796)	(5,363)
Gross profit		1,734	1,834
Selling expenses	(23)	(761)	(826)
Research and development expenses	(24)	(103)	(118)
General administration expenses	(25)	(326)	(307)
Other operating income	(26)	164	122
Other operating expenses	(27)	(409)	(201)
Operating result (EBIT)		299	504
Income from investments accounted for using the equity method		0	0
Interest income		9	6
Interest expense		(89)	(75)
Other financial income and expense		0	(45)
Financial result	(28)	(80)	(114)
Income before income taxes		219	390
Income taxes	(29)	(159)	(118)
Income after income taxes from continuing operations		60	272
Income after income taxes from discontinued operations		64	251
Income after income taxes		124	523
of which attributable to non-controlling interests		37	92
of which attributable to LANXESS AG stockholders (net income)		87	431
Earnings per share (undiluted/diluted) (€)	(30)		
from continuing operations		0.66	3.03
from discontinued operations		0.29	1.68
from continuing and discontinued operations		0.95	4.71

Prior-year figures restated

Statement of Comprehensive Income

LANXESS Group

€ million	2017	2018
Income after income taxes	124	523
Items that will not be reclassified subsequently to profit or loss		
Remeasurements of the net defined benefit liability for post-employment benefit plans	(48)	39
Income taxes	13	(8)
	(35)	31
Items that may be reclassified subsequently to profit or loss if specific conditions are met		
Exchange differences on translation of operations outside the eurozone	(385)	31
Financial instruments fair value measurement	53	(47)
Financial instruments cost of hedging	(11)	(28)
Income taxes	(12)	22
	(355)	(22)
Other comprehensive income, net of income tax	(390)	9
Total comprehensive income	(266)	532
of which attributable to non-controlling interests	(60)	92
of which attributable to LANXESS AG stockholders	(206)	440

Statement of Changes in Equity

LANXESS Group

€ million	Capital stock	Capital reserves	Other reserves	Net income	Other equity components			Equity attributable to LANXESS AG stockholders	Equity attributable to non-controlling interests	Equity
					Currency translation adjustment	Financial instruments Fair value measurement	Cost of hedging			
Dec. 31, 2016	91	1,226	1,257	192	(199)	(15)		2,552	1,176	3,728
Allocations to retained earnings			192	(192)				0		0
Transactions with owners			5					5	13	18
Dividend payments			(64)					(64)	(3)	(67)
Total comprehensive income			(9)	87	(310)	31	(5)	(206)	(60)	(266)
<i>Income after income taxes</i>				87				87	37	124
<i>Other comprehensive income, net of income tax</i>			(9)		(310)	31	(5)	(293)	(97)	(390)
<i>Remeasurements of the net defined benefit liability for post-employment benefit plans</i>			(11)					(11)	(37)	(48)
<i>Exchange differences on translation of operations outside the eurozone</i>					(310)			(310)	(75)	(385)
<i>Financial instruments</i>						45	(7)	38	4	42
<i>Income taxes on other comprehensive income</i>			2			(14)	2	(10)	11	1
Dec. 31, 2017	91	1,226	1,381	87	(509)	16	(5)	2,287	1,126	3,413
Allocations to retained earnings			87	(87)				0		0
Change in accounting policies			(11)			1		(10)	(7)	(17)
Transactions with owners			(2)					(2)	2	0
Dividend payments			(73)					(73)	(41)	(114)
Total comprehensive income			9	431	38	(27)	(11)	440	92	532
<i>Income after income taxes</i>				431				431	92	523
<i>Other comprehensive income, net of income tax</i>			9		38	(27)	(11)	9	0	9
<i>Remeasurements of the net defined benefit liability for post-employment benefit plans</i>			8					8	31	39
<i>Exchange differences on translation of operations outside the eurozone</i>					38			38	(7)	31
<i>Financial instruments</i>						(37)	(17)	(54)	(21)	(75)
<i>Income taxes on other comprehensive income</i>			1			10	6	17	(3)	14
Changes in scope of consolidation					126	2	10	138	(1,179)	(1,041)
Dec. 31, 2018	91	1,226	1,391	431	(345)	(8)	(6)	2,780	(7)	2,773

Statement of Cash Flows

LANXESS Group

€ million	Note	2017	2018
Income before income taxes		219	390
Amortization, depreciation, write-downs and reversals of impairment charges of intangible assets, property, plant and equipment		410	431
Gains/losses on disposals of intangible assets and property, plant and equipment		1	(1)
Income from investments accounted for using the equity method		0	0
Financial losses		35	63
Income taxes paid		(139)	(156)
Changes in inventories		(6)	(143)
Changes in trade receivables		(90)	(74)
Changes in trade payables		30	52
Changes in other assets and liabilities		108	(90)
Net cash provided by operating activities – continuing operations	(37)	568	472
Net cash provided by operating activities – discontinued operations		300	114
Net cash provided by operating activities – total		868	586
Cash outflows for purchases of intangible assets and property, plant and equipment		(397)	(497)
Cash inflows from sales of intangible assets and property, plant and equipment		2	3
Cash outflows for financial assets		(110)	(494)
Cash inflows from financial assets		2,226	–
Cash outflows for the acquisition/sale of subsidiaries and other businesses, less acquired cash and cash equivalents		(1,803)	(66)
Cash inflows from the sale of subsidiaries and other businesses, less acquired cash and cash equivalents		9	1,304
Interest and dividends received		51	15
Cash outflows for external funding of pension obligations (CTAs)		–	(200)
Net cash provided by (used in) investing activities – continuing operations	(37)	(22)	65
Net cash used in investing activities – discontinued operations		(145)	(169)
Net cash used in investing activities – total		(167)	(104)
Proceeds from borrowings		119	653
Repayments of borrowings		(523)	(662)
Interest paid and other financial disbursements		(77)	(77)
Dividend payments		(64)	(74)
Net cash used in financing activities – continuing operations	(37)	(545)	(160)
Net cash provided by (used in) financing activities – discontinued operations		37	(57)
Net cash used in financing activities – total		(508)	(217)
Change in cash and cash equivalents from continuing operations		1	377
Change in cash and cash equivalents from discontinued operations		192	(112)
Change in cash and cash equivalents – total		193	265
Cash and cash equivalents as of January 1		355	538
Exchange differences and other changes in cash and cash equivalents		(10)	(6)
Cash and cash equivalents as of December 31	(37)	538	797
of which continuing operations		266	797
of which discontinued operations		272	0

Prior-year figures restated

Notes to the Consolidated Financial Statements

GENERAL INFORMATION

LANXESS AG is entered as a stock corporation in the Commercial Register of the Cologne District Court under HRB 53652. Its registered office is at Kennedyplatz 1, 50569 Cologne, Germany.

The annual financial statements of LANXESS AG and the consolidated financial statements of the LANXESS AG, to which the auditors, PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt/Main, have issued unqualified auditor's reports, are published in the German Federal Gazette (Bundesanzeiger).

The consolidated financial statements of the LANXESS Group for fiscal year 2018 were prepared by the Board of Management of LANXESS AG and authorized for submission to the Supervisory Board on February 27, 2019. It is the responsibility of the Supervisory Board to examine the consolidated financial statements and declare whether or not it approves them.

STRUCTURE AND COMPONENTS OF THE CONSOLIDATED FINANCIAL STATEMENTS

The consolidated financial statements comprise the statement of financial position, the income statement and statement of comprehensive income, the statement of changes in equity, the statement of cash flows and the notes, which include the segment information.

The consolidated financial statements were prepared in euros (€). Amounts are stated in millions of euros (€ million) except where otherwise indicated. Assets and liabilities are classified in the statement of financial position as current or non-current. Further details of their maturities are provided in these notes in certain cases.

The consolidated financial statements were prepared on the basis of historical acquisition, construction or production costs of the assets. Where different valuation principles are prescribed, these are used. They are explained in the section on accounting policies and valuation principles.

The income statement was prepared using the cost-of-sales method.

The fiscal year for these consolidated financial statements is the calendar year.

FINANCIAL REPORTING STANDARDS AND INTERPRETATIONS APPLIED

The consolidated financial statements of the LANXESS Group as of December 31, 2018 were prepared in accordance with the International Financial Reporting Standards (IFRS) as endorsed by the European Union (E.U.) and the corresponding interpretations, together with the additional requirements of Section 315e, Paragraph 1 of the German Commercial Code (HGB).

Financial Instruments

Following the application of IFRS 9, the rules governing the classification and measurement of financial assets and financial liabilities, the rules on impairment of financial instruments and the rules on hedge accounting have changed. The LANXESS Group partly utilized the exemption from retrospective application of the standard and applies it prospectively from January 1, 2018, for the classification, measurement and impairment of financial instruments. By contrast, the new requirements for hedge accounting will be applied retrospectively.

The conversion to the new IFRS 9 requirements resulted in the following effects as of January 1, 2018:

Following the introduction of new rules on the *classification and measurement of financial assets and liabilities*, the classification and measurement categories for financial assets in particular changed as of January 1, 2018. They are based on the company's business model and the characteristics of the cash flows of the respective financial instruments. For equity instruments in the portfolio as of January 1, 2018, which are not held for trading purposes, the option was exercised irrevocably at the level of the individual equity instrument to recognize future changes in fair value and disposal gains or losses in other comprehensive income or in profit or loss. The transition to IFRS 9 resulted in a reclassification of €50 million from the statement of financial position item "Near-cash assets" and a reclassification of €6 million of two financial instruments from the statement of

financial position item “Investments in other affiliated companies” to the statement of financial position item “Other non-current financial assets”. The two equity instruments under “Investments in other affiliated companies” previously accounted for at cost are now classified as debt instruments and measured at fair value in profit or loss. The measurement category for another non-current financial asset also changed. The fair value measurement is no longer through other comprehensive income but through profit or loss. This led, as of January 1, 2018, to a reclassification from other equity components to other reserves of €1 million taking deferred taxes into account.

The reconciliation of classification and measurement categories for financial assets from IAS 39 to IFRS 9 is shown in the table “[Carrying amounts, measurement and fair values of financial instruments as of December 31, 2018](#)” under Note 36.

The first-time application of the new rules on the *impairment of financial instruments* required the estimation of expected credit losses based on historical losses and future loss expectations. The conversion relates to the statement of financial position items trade receivables, cash and cash equivalents as well as other current and non-current financial assets, which particularly include financial assets, contract assets, and external loans. The introduction of the expected loss model reduced the statement of financial position item trade receivables by less than €1 million as of January 1, 2018. The write-downs of trade receivables of €17 million recognized as of December 31, 2017, rose accordingly as of January 1, 2018. The statement of financial position items cash and cash equivalents as well as other current and non-current financial assets changed by less than €1 million in total as of January 1, 2018. Other reserves and non-controlling interests in equity were each impacted by less than €1 million through the application of the new rules taking deferred taxes into account.

The introduction of the new requirements for *hedge accounting* relates in particular to the separate designation and measurement of individual components of forward rates and the exclusion of individual components of currency hedges. Costs of hedging in particular are treated separately. These amounted to €11 million in the previous year. Adjusting for deferred taxes, €4 million of this figure is attributable to other equity components and €3 million to non-controlling interests. In the statement of comprehensive income, costs of hedging are recognized under the items that are subsequently reclassified to profit or loss. Reclassification to profit or loss occurs at the end of the hedging relationship. Both within the statement of financial position items and the statement of comprehensive income item, there is only a shift between the fair value measurement of derivatives in hedge accounting (cash flow hedges) and the costs of hedging.

Revenue from Contracts with Customers

Following the introduction of IFRS 15, basic principles for revenue recognition were changed by the introduction of a five-step model. These basic principles relate, in particular, to the allocation of revenues to the distinct performance obligations and the associated revenues and rules on the timing of revenue recognition. Revenue recognition has changed for the following business models:

Under the business model of manufacturing products on the basis of *long-term sales contracts with a contractually defined minimum purchase requirement*, the total revenue expected in the future from sale of the minimum amount is estimated for the full term of the contract and allocated to the individual deliveries. The changes will result in a periodic shift in the timing of revenues, which are recognized as contract assets or liabilities.

Under the business model of manufacturing *customer-specific products on the basis of long-term supply agreements with a contractually defined minimum purchase requirement*, based on the rules of IFRS 15, the LANXESS Group has no alternative use for the products manufactured under these contracts. Moreover, it has a contractually enforceable right to payment for the minimum amount under the purchase requirement. In addition to estimating the total revenue from sale of the minimum amount over the full term of the contract and allocating it to the individual production units, the revenue attributable to the minimum purchase requirements is recognized on the basis of current contractual clauses over the manufacturing period meaning that it is recognized earlier. Contract assets will be recognized for the corresponding receivables until the products are delivered. The relevant inventories are derecognized when revenue is recognized.

For the business model *sale of products including organizing freight services*, recognition of revenue over time or at a point in time is based on the transfer of control to the customer. At LANXESS, the IFRS 15 criteria regarding the transfer of control to be assessed for this purpose primarily lead to a periodic shift in the timing of revenue recognition to the completion of the freight service due to the agreed delivery conditions. In this respect, the freight service is, in principle, not treated as a separate performance obligation.

The contract assets and liabilities are disclosed under other financial assets and other liabilities, respectively. Contract assets and liabilities are reported on a net basis, taking the maturity structure at contract level into account. Advance payments from customers are recognized as current or non-current contract liabilities.

The effects of the application of the modified retrospective method on the opening statement of financial position as of January 1, 2018 can be found in the following table:

Statement of Financial Position LANXESS Group – Accounting Changes IFRS 15 as of January 1, 2018

€ million	Dec. 31, 2017	Change of presentation	Change of revenue recognition date	Jan. 1, 2018
ASSETS				
Other non-current financial assets	20	–	20	40
Deferred taxes	442	–	11	453
Non-current assets	6,454	0	31	6,485
Inventories	1,680	–	124	1,804
Trade receivables	1,316	–	(196)	1,120
Other current financial assets	7	(7)	43	43
Current assets	3,957	(7)	(29)	3,921
Total assets	10,411	(7)	2	10,406
EQUITY AND LIABILITIES				
Other reserves	1,381	–	(9)	1,372
Equity attributable to non-controlling interests	1,126	–	(7)	1,119
Equity	3,413	0	(16)	3,397
Other non-current liabilities	99	(7)	7	99
Deferred taxes	113	–	6	119
Non-current liabilities	4,540	(7)	13	4,546
Other current liabilities	179	–	5	184
Current liabilities	2,458	0	5	2,463
Total equity and liabilities	10,411	(7)	2	10,406

Under the previous rules according to IAS 18, the recognition of revenues and trade receivables and the associated recognition of cost of sales and derecognition of inventories would have occurred on the date on which the risks and rewards

of the products were transferred to the customer. Under IAS 18, the statement of financial position items and the income statement items would have been as follows:

Statement of Financial Position LANXESS Group – Reconciliation to IAS 18 as of December 31, 2018

€ million	Dec. 31, 2018 IFRS 15	Reversal IFRS 15	Recognition IAS 18	Dec. 31, 2018 IAS 18
ASSETS				
Other non-current financial assets	25	(17)	–	8
Deferred taxes	287	(2)	0	285
Non-current assets	4,786	(19)	0	4,767
Inventories	1,347	(49)	8	1,306
Trade receivables	903	117	(11)	1,009
Other current financial assets	598	(44)	–	554
Current assets	3,901	24	(3)	3,922
Total assets	8,687	5	(3)	8,689
EQUITY AND LIABILITIES				
Other reserves	1,371	10	(3)	1,378
Net income	431	(1)	0	430
Equity	2,773	9	(3)	2,779
Other non-current liabilities	80	4	–	84
Deferred taxes	89	0	0	89
Non-current liabilities	4,395	4	0	4,399
Other current liabilities	131	(8)	–	123
Current liabilities	1,519	(8)	0	1,511
Total equity and liabilities	8,687	5	(3)	8,689

Income Statement LANXESS Group – Reconciliation to IAS 18 as of December 31, 2018

€ million	2018 IFRS 15	Reversal IFRS 15	Recognition IAS 18	2018 IAS 18
Sales	7,197	(12)	(4)	7,181
Cost of sales	(5,363)	20	(4)	(5,339)
Gross profit	1,834	8	0	1,842
Operating result (EBIT)	504	8	0	512
Financial result	(114)	0	0	(114)
Income before income taxes	390	8	0	398
Income taxes	(118)	(2)	0	(120)
Income after income taxes from continuing operations	272	6	0	278
Income after income taxes from discontinued operations	251	(7)	–	244
Income after income taxes	523	(1)	0	522

Applying the rules of IAS 18, the income attributable to LANXESS AG stockholders (net income) would have declined by €1 million from €431 million to €430 million. The corresponding earnings per share from continuing operations would have increased by €0.07 from €3.03 to €3.10, and the earnings per share from discontinued operations would have declined by €0.08 from €1.68 to €1.60. Total earnings per share from continuing and discontinued operations would have declined by €0.01 from €4.71 to €4.70.

Financial Reporting in Hyperinflationary Economies

Accounting in accordance with IAS 29 was applied to the subsidiary LANXESS S.A., Buenos Aires, Argentina, for the first time in the fiscal year 2018. Non-monetary items in the statement of financial position, components of equity and items in the statement of comprehensive income were adjusted using the price index proposed by the Government Board of the Argentine Federation of Professional Councils of Economic Sciences (FACPCE) up to December 31, 2018. The wholesale consumer price index (Indec IPIM) was used for inflation for fiscal years before December 31, 2016 and the retail consumer price index (IPC Nacional INDEC) was used from January 1, 2017. The price index came to 124.80 points at the start of the fiscal year and 184.59 points at the end of the fiscal year.

Non-current Assets Held for Sale and Discontinued Operations

Accounting in accordance with IFRS 5 was applied in the fiscal year 2018. The accounting affected the investment in ARLANXEO, which was included and fully consolidated in the LANXESS consolidated financial statements from April 1, 2016. Since

April 1, 2018, a year before the planned end of full consolidation, ARLANXEO has been accounted for as a discontinued operation according to IFRS 5 and reported accordingly. On December 31, 2018, LANXESS sold its 50% interest in ARLANXEO to the Saudi Aramco subsidiary Aramco Overseas Holdings Coöperatief U.A., The Hague, Netherlands, and deconsolidated its investment in ARLANXEO. For further information, please see the comments on [“Non-current assets and liabilities held for sale and discontinued operations \(IFRS 5\)”](#) in the section headed “Accounting Policies and Valuation Principles” and the elaboration on [“Discontinued operations”](#) in the section headed “Companies Consolidated.”

The mandatory first-time application of the following financial reporting standards and interpretations in fiscal year 2018 currently has no impact, or no material impact, on the LANXESS Group:

Standard/Interpretation	
IFRS 2	Share-based Payment – The amendments include clarifications of classification and measurement of cash-settled share based payments, net of tax withholdings and modifications of share-based payments from cash-settled to equity-settled
IFRS 4	Insurance Contracts – The amendments address an optional temporary exemption from applying IFRS 9 “Financial Instruments” and an option that permits entities to reclassify, from profit or loss to other comprehensive income, some of the income or expenses arising from designated financial assets
Various IAS and IFRS	Annual Improvements to the IFRS, 2014–2016 Cycle – The amendments relate to IAS 28 “Investments in Associates and Joint Ventures” and IFRS 1 “First-time Adoption of International Financial Reporting Standards”
IFRIC 22	Foreign Currency Transactions and Advance Consideration – The interpretation clarifies which exchange rate should be used for the initial recognition of a foreign currency transaction in the functional currency, if an advance consideration related to the foreign currency transaction was paid or received
IAS 40	Investment Property – A transfer of a property to, or from, investment property should only be made when, and only when, there is evidence of a change in use

FINANCIAL REPORTING STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET MANDATORY

In fiscal year 2018, the International Accounting Standards Board (IASB) and the IFRS Interpretations Committee issued financial reporting standards and interpretations, whose application was not yet mandatory for that year and which the LANXESS Group thus did not yet apply. The application of these standards and interpretations is in some cases contingent upon their endorsement by the E.U. It is therefore possible that the dates for mandatory application may ultimately be later than indicated below.

Leases

On January 13, 2016, the IASB published the new standard IFRS 16, which supersedes IAS 17. Under IFRS 16, lessees will recognize all leases as a right-of-use asset and a lease liability in the statement of financial position on the basis of the present value of the lease payments. Depreciation on the capitalized right-of-use asset and interest expense for compounding the lease liabilities are recognized in the income statement. For lessees, the distinction between operating and finance leases is abolished. LANXESS will apply the options for lessees provided by the new standard for the treatment of short-term leases and leases of low value. As

these options are applied, the costs of these leases are expensed immediately. There are no significant changes for lessors. The standard was endorsed by the E.U. in October 2017 and is to be applied for annual periods beginning on or after January 1, 2019. The transition will be made according to the modified retrospective method. Therefore, the comparative figures of the fiscal year 2018 will not be restated.

The analyses performed as part of the project to introduce IFRS 16 found that present values of around €135 million for lease liabilities and the same amount for right-of-use assets must be recognized in the statement of financial position as of the transition date of January 1, 2019. This reduces the equity ratio by around 0.5 percentage points. Net financial liabilities are increased by the value of the additional lease liabilities. The past expense for operating leases is no longer reported in the income statement and will be replaced by the depreciation expense of the recognized right-of-use assets and interest expenses on the lease liability in the future. LANXESS expects this to increase depreciation by around €35 million, which will be offset by the absence of expenses for operating leases of a similar amount. In addition, the net financial result is expected to deteriorate by a low seven-figure amount.

The following financial reporting standards and interpretations currently have no impact, or no material impact, on the LANXESS Group:

Standard/Interpretation		Date of publication	Mandatory for LANXESS as of fiscal year	Endorsed by the E.U.
IFRS 17	Insurance Contracts	May 18, 2017	2021	no
IFRIC 23	Uncertainty over Income Tax Treatments	June 7, 2017	2019	yes
IAS 28	Investments in Associates and Joint Ventures – Amendments to IAS 28 – Long-term Interests in Associates and Joint Ventures	October 12, 2017	2019	yes
IFRS 9	Amendments to IFRS 9 – Prepayment Features with Negative Compensation	October 12, 2017	2019	yes
Various IAS and IFRS	Annual Improvements to the International Financial Reporting Standards, 2015–2017 Cycle	December 12, 2017	2019	no
IAS 19	Amendments to IAS 19 – Plan Amendments, Curtailments, and Settlements	February 7, 2018	2019	no
Conceptual Framework	Amendments to References to the Conceptual Framework in IFRS Standards	March 29, 2018	2020	no
IFRS 3	Business Combinations – Definition of a Business	October 22, 2018	2020	no
IAS 1 / IAS 8	Definition of Materiality	October 31, 2018	2020	no

RESTATEMENT OF PRIOR-YEAR FIGURES

Due to the application of IFRS 5, the prior-year figures in the income statement as well as the statement of cash flows and the associated disclosures in the notes were restated. In addition, the purchase price allocation for the acquisition of the U.S. group Chemtura was completed in April 2018. On the basis of new knowledge and information, the non-current income tax liabilities as well as the goodwill were finally increased by €15 million. The figures in the consolidated statement of financial position as of December 31, 2017 were adjusted accordingly.

CONSOLIDATION

The financial statements of the consolidated companies were prepared using uniform accounting policies and valuation principles.

If the fiscal year of a consolidated company does not end on December 31, interim financial statements are prepared for the purpose of consolidation.

Intra-Group profits or losses, sales, income and expenses as well as receivables and payables between consolidated companies are eliminated.

Scope of consolidation

The consolidated financial statements of the LANXESS Group include LANXESS AG and all subsidiaries under the control of LANXESS AG. Control exists if LANXESS AG is exposed to variable returns from the relationship with a company and has power over the company. Power means that LANXESS AG has existing rights that give it the current ability to direct the relevant activities of the company and thus exert a significant influence over the variable returns. The ability to control another company generally derives from direct or indirect ownership of a majority of the voting rights. In the case of structured entities, control normally derives from contractual agreements. A company is consolidated as of the date from which LANXESS AG is able to exercise control and deconsolidated when this is no longer the case.

Interests in associates in which the LANXESS Group exerts a significant influence, generally through an ownership interest between 20% and 50%, and interests in joint ventures are accounted for using the equity method.

Entities that are in aggregate immaterial to the Group's earnings, asset and financial position are not consolidated, but are included in the consolidated financial statements at fair value.

Changes in the scope of consolidation are stated in the section headed "Companies Consolidated," which also contains a list of companies.

Fully consolidated companies

Business combinations are accounted for using the acquisition method. The cost of a business combination is stated as the aggregate of the fair values, at the date of acquisition, of the assets transferred, liabilities incurred or assumed, and any equity instruments issued in exchange for control of the acquiree. It also contains the fair value of assets and liabilities resulting from contingent consideration contracts.

For the first-time consolidation, the assets, liabilities and contingent liabilities identified in the course of the acquisition are measured at fair value as of the acquisition date.

For each business combination, there is an option to include any shares not acquired either at their fair value or at the pro rata share of the fair value of the acquiree's net assets. They are reported in the statement of financial position as equity attributable to non-controlling interests.

Acquisition-related costs – except those incurred to issue debt or equity securities – are recognized in profit or loss.

Goodwill is measured as of the acquisition date as the excess of the consideration transferred, the amount of any non-controlling interests and the fair value of any previously held equity interest over the fair value of the net assets acquired. Negative goodwill is recognized in the income statement.

Investments accounted for using the equity method

The cost of acquisition of an entity accounted for using the equity method is adjusted annually by the percentage of any change in its equity corresponding to LANXESS's percentage interest in the entity. If any decline in value exceeds the carrying amount of the entity, write-downs are recognized on the associated non-current assets. If the carrying amount of the entity and the associated assets are reduced to zero, liabilities would be recognized if the owner has entered into a legal or substantive obligation, e.g. to offset pro rata losses, or has made payments for the entity.

Differences arising from the first-time accounting for investments using the equity method are determined according to the same principles as for consolidated subsidiaries. Any goodwill is included in the carrying amount of the entity.

Joint operations

Joint operations are arrangements in which the parties that exercise joint control have rights to the assets and obligations for the liabilities relating to the arrangement. LANXESS accounts for its share of the joint assets and joint liabilities of such joint operations and its share of the revenues and expenses, including its share of jointly incurred expenses.

Transactions with owners

Transactions with non-controlling interests, which do not result in a loss of control, are treated as transactions between shareholders of the LANXESS Group. Changes in ownership interests are accounted for by adjusting the carrying amounts of the controlling and non-controlling interests. Differences between the adjustment to the carrying amount of the non-controlling interests and the fair value of the consideration paid or received are recognized immediately in other reserves and thus assigned to the equity attributable to the stockholders of LANXESS AG.

CURRENCY TRANSLATION

In the financial statements of the individual consolidated companies that form the basis for the consolidated financial statements of the LANXESS Group, all foreign-currency assets and liabilities are translated at closing rates, irrespective of whether they are hedged. Forward contracts serving as economic hedges against fluctuations in exchange rates are reflected at fair value. Exchange differences resulting from currency translation are reflected in profit or loss in the net exchange result within other financial income and expense.

The financial statements of each foreign entity are valued on the basis of the currency of the primary economic environment in which the entity operates (functional currency concept). By far the majority of foreign companies are financially, economically and organizationally autonomous and their functional currencies are therefore the respective local currencies. The assets and liabilities of these companies are translated at closing rates, while income and expense items are translated at average rates for the year.

Goodwill arising on the acquisition of a foreign entity is recognized in the currency of the acquired entity and translated at the closing rate, irrespective of the date on which it arose.

Equity is translated at historical rates, while income, expenses and other changes during the year are translated at average rates. The differences between the resulting amounts and those obtained by translating at closing rates are reported separately in other comprehensive income as exchange differences on translation of operations outside the eurozone.

Foreign currency transactions for which advance consideration has been paid or received are translated at the exchange rate of the advance consideration paid or received up to the amount of the advance consideration paid or received, if material.

If a company is deconsolidated, the relevant exchange differences are reversed and recognized in profit or loss.

The principal exchange rates used for currency translation in the LANXESS Group were:

Exchange Rates

€1		Closing rate, Dec. 31		Average rate	
		2017	2018	2017	2018
Argentina	ARS	22.63	43.13	18.74	32.91
Brazil	BRL	3.97	4.44	3.61	4.30
China	CNY	7.80	7.88	7.63	7.81
Great Britain	GBP	0.89	0.89	0.88	0.88
India	INR	76.60	79.88	73.51	80.71
Japan	JPY	135.01	125.85	126.67	130.40
Canada	CAD	1.50	1.56	1.46	1.53
Singapore	SGD	1.60	1.56	1.56	1.59
South Africa	ZAR	14.81	16.46	15.04	15.61
U.S.	USD	1.20	1.15	1.13	1.18

IAS 29 was applicable to the subsidiary LANXESS S.A., Buenos Aires, Argentina, for the first time in the fiscal year 2018. Non-monetary items in the statement of financial position, components of equity and items in the statement of comprehensive income were adjusted to the current price level using a suitable price index and subsequently translated at the closing rate or the average exchange rate at the end of the reporting period.

ACCOUNTING POLICIES AND VALUATION PRINCIPLES

The accounting policies and valuation principles are the same as those used in the previous fiscal year and have been consistently applied. However, certain changes have resulted from the mandatory first-time application in fiscal year 2018 of new or amended financial reporting standards and interpretations. These changes are explained in the section headed "Financial Reporting Standards and Interpretations Applied".

Intangible assets

Intangible assets comprise goodwill and other intangible assets such as software, concessions, industrial property rights, similar rights and assets, and licenses to such rights and assets. Acquired intangible assets with a definite useful life are recognized at cost and amortized over their respective useful lives using the straight-line method. The amortization for intangible assets other than goodwill is between 3 and 20 years. Amortization in the reporting period is allocated to the respective functional areas. Any further decline in value is recognized by means of a write-down. Write-downs are reversed in the following year if the reasons for them no longer exist, provided that this does not cause the carrying amount of the assets to exceed either the amortized cost at which they would have been carried if the write-downs had not been recognized or their current recoverable amount. The lower of these two amounts is recognized. Goodwill is not amortized, but subject to an impairment test performed annually or more often if events or a change in circumstances indicate a possible impairment. Any impairment charges are recognized in other operating expenses. Impairment charges on goodwill are not reversed.

The costs incurred for in-house software development at the application development stage are capitalized and amortized over the expected useful life of the software from the date it is completed.

Emissions rights are recognized at cost. Rights allocated free of charge by the German Emissions Trading Authority (DEHSt) or comparable authorities in other European countries are capitalized at a value of zero.

Property, plant and equipment

Property, plant and equipment is carried at the cost of acquisition or construction less usage-based depreciation. Write-downs are recognized for any reduction in value that goes beyond ordinary depreciation. In compliance with IAS 36, impairment charges are measured by comparing the carrying amount with the discounted cash flows expected to be generated by the assets in the future. Where it is not possible to allocate future cash flows to specific assets, the impairment charge is assessed on the basis of the discounted cash flows for the cash-generating unit to which the asset belongs. Write-downs are reversed accordingly if the reasons no longer apply, provided that this does not cause the carrying amount of the assets to exceed either the amortized cost at which they would have been recognized if they had not been written down or their current recoverable amount.

The cost of self-constructed property, plant and equipment comprises the direct costs, as well as an appropriate share of the necessary material and manufacturing overheads. It also includes the shares of depreciation as well as of expenses for company pension plans and discretionary employee benefits that are attributable to production.

Where an obligation exists to shut down or dismantle assets at the end of their useful life or to restore a site to its original condition, the present value of the obligation is capitalized along with the cost of acquisition or construction and a provision in the same amount is recognized.

If the construction phase of property, plant or equipment extends over a long period, the directly attributable borrowing costs incurred up to the date of completion are capitalized as part of the cost of acquisition or construction.

Expenses for current maintenance and repairs are recognized directly in profit or loss. Subsequent acquisition or construction costs are capitalized if they will result in future economic benefits and can be reliably determined.

Expenses for general overhauls of major large-scale plants are recognized separately at the cost of the overhaul as part of the related assets and depreciated over the period between one general overhaul and the next using the straight-line method.

Where assets comprise material components with different purposes, different properties, or different useful lives, the components are capitalized individually and depreciated over their useful lives.

When property, plant or equipment is sold, the difference between the net proceeds and the carrying amount is recognized as a gain or loss in other operating income or expenses.

Assets are depreciated using straight-line method based in general on the following useful lives:

Useful Lives

Buildings	20 to 50 years
Outdoor infrastructure	10 to 20 years
Plant installations	3 to 25 years
Machinery and equipment	8 to 15 years
Laboratory and research facilities	3 to 5 years
Storage tanks and pipelines	10 to 20 years
Vehicles	5 to 8 years
Computer equipment	3 to 5 years
Furniture and fixtures	5 to 10 years

Leases

In accordance with IAS 17, leased assets where substantially all risks and rewards incidental to ownership are transferred (finance leases) are capitalized at the lower of their fair value and the present value of the minimum lease payments at the date of addition. They are depreciated over their useful lives. If subsequent transfer of title to the leased asset is uncertain, it is depreciated over the shorter of its estimated useful life and the lease term.

The future lease payments are recognized as financial liabilities. Liabilities under finance leases are recognized at the fair value of the leased asset at commencement date or the present value of the minimum lease payments, whichever is lower. The minimum lease payments are divided into financing costs and the portion representing repayment of the principal. In the case of leasing contracts that do not include the transfer of substantially all risks and rewards incidental to ownership (operating leases), the lessee recognizes the lease payments as expense.

Property, plant and equipment also includes assets that LANXESS leases or rents out to third parties under agreements other than finance leases. However, if the lessee is to be regarded as the economic owner of the assets, a receivable is recognized in the amount of the discounted future lease or rental payments.

Leasing arrangements may be embedded in other contracts. Where IFRS stipulates separation of the embedded leasing arrangement, the components of the contract are recognized and measured separately.

Financial instruments (IFRS 9)

Financial instruments are contracts that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Firstly, these include primary financial instruments such as trade receivables and payables or financial receivables and liabilities. Secondly, they also include derivative financial instruments used to hedge the risks of changes in exchange rates, raw material prices and interest rates.

Financial instruments are recognized as soon as the LANXESS Group becomes the contracting party to them. Financial assets are derecognized when the contractual rights to receive payments expire or the financial assets are transferred together with all significant risks and rewards. Financial liabilities are derecognized when the contractual obligations are met or canceled, or when they expire.

In the case of regular-way purchases and sales, the settlement date is the relevant date for first-time recognition or derecognition of financial assets in the financial statements.

Financial assets are initially recognized at fair value. For subsequent measurement, depending on their classification, they are recognized at amortized cost using the effective interest method or at fair value in other comprehensive income or in profit or loss. Classification is determined by the business model and the characteristics of the cash flows. The possible classifications are as follows:

Under the "hold" business model, financial instruments are held until maturity. They are measured at amortized cost if the cash flows are solely for payments of principal and interest. The Group does not use the option for measurement at fair value through profit and loss. Financial instruments recognized at amortized cost are reduced by expected credit losses. Both historical loss experience and future expected losses are used to calculate expected credit losses. A three-stage assessment is applied to the expected credit loss. In the first stage, the expected credit loss over the next twelve months is assessed and the expected loss is recognized. If the credit risk increases over the term of the financial instrument, the potential credit loss over the entire term of the financial instrument is assessed and the expected loss is increased on the basis of this measurement (second stage). In the event of a default, the expected default amount is recognized

(third stage) and an expected loss is also taken into account for any residual amount of the financial instrument. The effective interest method is then only applied to the residual amount. For trade receivables and contract assets, the simplified one-stage model for the entire term is used to calculate the expected risk of default, and the expected loss over the entire term of the financial instrument is measured and recognized. Expected losses on trade receivables and contract assets are recognized in other operating expenses, taking into account reversals from prior periods. For all other financial instruments carried at amortized cost, the expected loss is recognized under "Other financial result."

Under the "hold and sell" business model, an entity intends to resell the financial instrument during its term after a certain holding period. Such financial instruments are measured at fair value. Gains or losses on subsequent measurement are recognized in other comprehensive income if the cash flows are solely for payments of principal and interest.

Financial instruments that are not measured at amortized cost or at fair value in other comprehensive income are recognized at fair value in profit or loss. Gains or losses from subsequent measurement are recognized in the income statement.

Trade receivables and other financial receivables are initially recognized at fair value under the "hold" business model and subsequently accounted for at amortized cost using the effective interest method. The expected loss is calculated using the simplified one-stage model for the entire term on the basis of a past due matrix and taking into account historical loss experience and future expected losses. Both expected and incurred losses are recognized in profit or loss through separate allowance accounts.

Other current and non-current financial receivables that are accounted for under the "hold" business model are initially recognized at fair value and subsequently accounted for at amortized cost using the effective interest method. These include financial assets whose cash flows are solely for payments of principal and interest, contract assets and miscellaneous financial receivables. The expected loss is calculated according to the counterparty's future expected loss. Other current and non-current financial receivables that are accounted for under the "hold to collect" business model are measured at fair value. Depending on whether they can be assigned to the "hold and sell" business model, the gain or loss on subsequent measurement is recognized through other comprehensive income or otherwise through profit or loss.

Equity investments and long-term equity instruments are recognized at fair value. For subsequent measurement, it is determined irrevocably at the level of the individual equity instrument whether gains or losses and the gains on disposal are recognized through other comprehensive income or through profit or loss. Where objective evidence exists that such assets may be impaired, an impairment loss is recognized on the basis of an impairment test.

Investments in companies accounted for using the equity method are recognized at the amounts corresponding to LANXESS's shares in their equity in accordance with IAS 28.

Primary financial liabilities are initially recognized at fair value less any transaction costs. In subsequent periods, they are measured at amortized cost using the effective interest method. LANXESS does not utilize the option of designating financial instruments as at fair value and recognizing them in profit or loss on initial recognition.

Financial instruments (IAS 39)

The accounting policies and valuation principles for financial instruments, which in deviation from IFRS 9 were applied in accordance with the requirements of IAS 39 in the previous year, are explained below.

Trade receivables and other financial receivables were allocated to the loans and receivables category, initially recognized at fair value and subsequently accounted for at amortized cost using the effective interest method. Where write-downs were necessary as a result of impairment testing, they were recognized using separate accounts.

Investments in affiliates and equity instruments included in non-current assets were classified as available-for-sale financial assets and recognized at fair value, except where their fair value could not be reliably determined, in which case they were recognized at amortized cost. Where objective evidence existed that such assets may have been impaired, an impairment loss was recognized on the basis of an impairment test.

Financial assets held for trading were recognized at fair value. Any gain or loss arising from subsequent measurement was reflected in the income statement.

All other primary financial assets were classified as available for sale and recognized at fair value except if they were allocable to loans and receivables. Any gain or loss resulting from subsequent measurement, with the exception of write-downs and of gains and losses from currency translation, was recognized in other comprehensive income until the asset was derecognized.

Investments in companies accounted for using the equity method were recognized at the amounts corresponding to LANXESS's shares in their equity in accordance with IAS 28.

Primary financial liabilities were initially recognized at fair value less any transaction costs. In subsequent periods, they were measured at amortized cost using the effective interest method.

LANXESS did not utilize the option of designating financial instruments as at fair value and recognizing them in profit or loss on initial recognition.

Derivative financial instruments and hedging transactions

The LANXESS Group recognizes derivative financial instruments as assets or liabilities at their fair value on the closing date. Changes in fair value are recognized in profit or loss. Where foreign currency derivatives or forward commodity contracts used to hedge future cash flows from pending business or forecast transactions qualify for hedge accounting under the relevant financial reporting standard, the changes in value or hedging costs of such instruments are recognized separately in other comprehensive income until the underlying transactions are realized. The amounts recognized here for currency derivatives are subsequently reclassified to other operating income or cost of sales, as appropriate, when the hedged transaction is recognized in profit or loss. For forward commodity transactions, the amounts recognized on acquisition of the hedged products are allocated to their carrying amount and recognized in the cost of sales on processing of the same. Any portion of the change in value of such derivatives deemed to be ineffective with regard to the hedged risk is recognized directly in profit or loss. Changes in the fair value and hedging costs of interest rate derivatives used to hedge long-term liabilities with variable interest rates – provided such derivatives qualify for cash flow hedge accounting – are recognized in other comprehensive income and subsequently reclassified to profit or loss as interest income or expense at the same time as the income from the hedged transaction is recognized in profit or loss.

Contracts concluded for the purpose of receiving or delivering non-financial items based on expected purchases, sales or utilization and held for this purpose are recognized not as financial derivatives but as pending transactions. If the contracts contain embedded derivatives, the derivatives are accounted for separately from the host contract, provided that the economic characteristics and risks of the embedded derivative are not closely related to those of the host contract.

Determination of fair value

The key methods and assumptions used in measuring the fair value of financial instruments are outlined below:

Trade receivables, other receivables and cash and cash equivalents are generally due within one year. Their carrying amount is therefore their fair value. Receivables due in more than one year are discounted using current interest rates to determine their fair value.

Contract assets are recognized at their carrying amounts. If they contain significant financing components, they are discounted using current interest rates. The fair values accordingly correspond to the carrying amounts.

The fair value of financial assets is determined from their market price on the closing date, disregarding transaction costs.

The fair value of loans and liabilities to banks is calculated on the basis of discounted future payments of principal and interest.

The bonds are traded in an active, liquid market. Their fair values are the prices determined and published by the market. If no liquid market price is available for a bond, its fair value is determined on the basis of observable inputs, using a risk-related discount rate.

The fair value of trade payables and other primary financial liabilities due within one year is normally their carrying amount. The fair value of other liabilities is determined by discounting to present value where feasible.

The fair values of receivables and liabilities relating to finance leases are the present values of the net lease payments calculated using the market rate for comparable lease agreements.

The derivative financial instruments used by LANXESS are primarily traded in an active, liquid market. The fair values as of the end of the reporting period pertain principally to forward exchange contracts and, to a small extent, to forward commodity contracts. If information on hedging costs is available, the fair values are derived from their trading or listed prices using the forward-to-forward method. If information on hedging costs is not available, the fair values are calculated using the spot-to-spot method, and hedging costs, including the forward component, are separated. Where no market price is available, values are determined using recognized capital market pricing methods based on observable market data. In determining the fair values, adjustments for LANXESS's own credit risk and counterparty credit risk are made on the basis of the respective net positions.

Cash and cash equivalents

Cash and cash equivalents represent financial instruments that are allocated to the "hold to collect" business model and recognized at amortized cost. The risk of default relating to cash and cash equivalents is calculated taking into account the counterparty's future expected loss applying the three-stage model and recognized under "Other financial result". Cash and cash equivalents comprise checks, cash and balances with banks. Securities with maturities of up to three months from the date of acquisition are recognized in cash and cash equivalents due to their high liquidity. In the previous year, cash and cash equivalents were recognized in line with the rules of IAS 39 without accounting for future expected losses.

Inventories

Inventories encompass assets held for sale in the ordinary course of business (finished goods and merchandise), assets in the process of being manufactured for sale (work in process) and assets used in the production process (raw materials and supplies). They are valued by the weighted-average method and recognized at the lower of cost and their respective net realizable value, which is the estimated selling price in the ordinary course of business less the estimated remaining production costs and selling expenses.

The cost of production comprises the direct cost of materials, direct manufacturing expenses and appropriate allocations of fixed and variable material and manufacturing overheads at normal capacity utilization, when attributable to production.

It also includes expenses for company pension plans, social services and voluntary social benefits that can be allocated to production. Administrative costs are included where they are attributable to production.

Borrowing costs incurred in the course of production are not included in the acquisition or production cost of inventories as the products are not manufactured within long-term production processes.

Given the production and distribution circumstances of the LANXESS Group, work in process and finished goods are grouped together.

Provisions

Provisions are recognized and measured in accordance with IAS 37 and, where appropriate, IAS 19 and IFRS 2, using the best estimates of the amounts of the obligations. Non-current portions of material provisions due in more than one year are discounted to present value if the extent and timing of the obligation can be assessed with reasonable certainty. The change in the provision resulting from approaching the due date (interest effect) is expensed in the other financial result.

If the projected obligation declines as a result of a change in the estimate, the provision is reversed by the corresponding amount and the effect is recognized in the income or expense item(s) in which the provision was originally recognized.

Provisions for pensions and other post-employment benefits are established for defined benefit pension plans. The provision is measured according to the actuarial present value of the obligation, calculated using the projected unit credit method. This takes into account not only the known pensions and pension entitlements as of the closing date, but also expected future salary and benefit increases. Remeasurements of the net defined benefit liability are fully recognized in other comprehensive income in the period in which they occur. They are not reclassified to profit or loss in a subsequent period.

Personnel-related provisions mainly include those for annual bonus payments, payments under multi-year compensation programs and other personnel costs.

The stock-based employee compensation programs (Long-Term Stock Performance Plan – LTSP) provide for cash settlement. Provisions are established for the obligations entered into under such programs on the basis of the proportionate fair value of the rights allocated to employees. The fair value is determined using the Monte Carlo method, in which future returns are simulated and the expected payment is calculated from the value of the rights based on a two-dimensional standard distribution of returns. The fair value of the rights is reflected in a pro rata provision during the vesting period.

The stock-based compensation program for members of the Supervisory Board provides for variable cash settlement, provided that LANXESS stock has outperformed a defined index during their term of office. Provisions are established for the expected obligations.

Restructuring provisions are established if there is a legal or constructive obligation on the basis of a detailed restructuring plan adopted by authorized management, and the employees affected or their representatives have been informed. Such provisions contain the expenses that are directly attributable to the restructuring and that are necessary to implement these measures and do not relate to the future operating business.

The LANXESS Group also records provisions for current or pending legal proceedings where the resulting expenses can be reasonably estimated. These provisions include all estimated fees and legal costs and the cost of potential settlements. However, litigation expenses are only included if it is assumed that they will have to be borne by LANXESS. The amounts of such provisions are based upon information and cost estimates provided by the Group's legal advisers. The provisions are regularly reviewed together with the Group's legal advisers and adjusted if necessary.

Contingent liabilities

Contingent liabilities are potential obligations to third parties or existing commitments, the extent of which cannot be reasonably estimated or which are unlikely to lead to an outflow of resources. They are not recognized in the statement of financial position unless they have been entered into in connection with a business combination.

Liabilities

Other current liabilities are recognized at repayment or settlement amounts. Other non-current liabilities are recognized at amortized cost.

Grants received from third parties for the acquisition or construction of property, plant and equipment are reflected in other liabilities and released to the respective functional area of profit or loss over the underlying period or expected useful life of the assets to which they relate.

Contract liabilities are also reported under other liabilities and represent advance consideration paid by the customer for outstanding performance obligations.

Financial reporting in hyperinflationary economies

A country must be classified as a hyperinflationary economy if, in addition to other criteria, the cumulative inflation rate over the past three years approaches or exceeds 100%. On classification as a hyperinflationary economy, non-monetary items in the statement of financial position, components of equity and items in the statement of comprehensive income are restated to the current price level using a suitable price index. Restatements to the current price level that are attributable to prior reporting periods lead to a difference of prior year equity and the beginning balance of equity of the fiscal year. These equity differences are shown in other comprehensive income in the currency translation adjustments from the translation of operations outside the euro zone. The changes are recognized in the reporting period of the first assessment of the country as a hyperinflationary economy. Changes relating to the current reporting period are recognized as monetary gains or losses under "Other financial result".

In the statement of financial position, this applies in particular to non-monetary assets and liabilities that are recognized at amortized cost and therefore not at the current price level. These are essentially intangible assets, property, plant and equipment, inventories and advance consideration paid and received. The restatement of prices is calculated from the date of the asset's historical acquisition or production to the end of the reporting period. Equity components, except retained earnings, are restated to the current price level from the date of contribution. Statement of comprehensive income items are restated from the dates when the items of income and expenses were initially recorded in the financial statements.

Non-current assets and liabilities held for sale and discontinued operations

Material assets are recognized as held for sale if they can be sold in their current condition and a sale is highly probable. Such assets may be individual non-current assets, groups of assets (disposal groups) or complete business entities. A disposal group may also include liabilities if these are to be divested together with the assets as part of the transaction.

The assets and liabilities in question are each reported in a separate line item in the statement of financial position. Intangible assets and property, plant and equipment held for sale are not subject to any further amortization or depreciation, and are recognized at the lower of carrying amount at the time of classification as held for sale and fair value less costs to sell. Intra-Group receivables and liabilities are eliminated in full. The previous year's figures are not restated.

The presentation of the income statement focuses on the calculation of earnings from continuing operations. Earnings from discontinued operations are shown in the line "Income after income taxes from discontinued operations". Intra-Group transactions that continue with the discontinued operation after its deconsolidation or with third parties are recognized under continuing operations. The elimination entries as part of the consolidation of expenditure and income are assigned fully to discontinued operations. The prior-year period in the income statement is adjusted accordingly. The gain or loss on deconsolidation is recognized under discontinued operations.

The notes to items of the statement of financial position provide details of the reconciliation from values at the start of the year to values at the end of the year. The reconciliations focus on presenting continuing operations. The figures for discontinued operations are reported in the line "Adjustments in accordance with IFRS 5". They include the expenses and income in the income statement attributable to discontinued operations for the previous year and the reclassification of ARLANXEO's statement of financial position items to discontinued operations in the current year.

Sales and other revenues (IFRS 15)

From January 1, 2018, sales in the course of ordinary activities are recognized in revenue in accordance with the rules of IFRS 15. In particular, these are sales of internally generated chemical products or from tolling agreements for such products. In addition, research and development work, sales- and product-related services and other long-term services are also recognized in revenue. Services that do not relate to ordinary activities and that are temporary are reported in other operating income.

Revenue is recognized depending on the transfer of control over products or services to the customer. Control can be transferred either at a point in time or over time. Control has been transferred when the customer has obtained the ability to direct the use of, and obtain the remaining benefits from, the asset. There are typically no rights of return.

Depending on the terms and conditions of delivery, revenue from the sale of chemical products is typically recognized when the customer or a third party commissioned by the customer receives the products. At this time, the risks and rewards have been transferred to the customer, the customer has physically received the goods and, normally, there are no longer any outstanding obligations preventing the customer's acceptance of the product. The time at which the right to receive payment and the time when legal title passes are governed by individual regulations and are referenced in determining the timing of revenue. Revenue is measured at the invoice amount after deducting transfer taxes and sales deductions.

Under the business model of manufacturing products on the basis of long-term sales contracts with contractually defined minimum purchase requirements, revenue is recognized when the customer receives the goods. Revenue is measured by estimating the total revenue expected in the future from the sale of minimum amounts over the full term of the contract and allocated to the individual deliveries. Rebates and material rights to procure expected additional purchase quantities are taken into account in the total revenue from the sale. Differences from the invoice price arising as a result of average pricing are recognized as contract assets or liabilities that are reversed over the term of the contract.

Under the business model of manufacturing customer-specific products on the basis of long-term supply agreements with a contractually defined minimum purchase requirement, within the meaning of the rules of IFRS 15, the LANXESS Group has no alternative use for the products manufactured under these contracts. Moreover, it has a contractually enforceable right to payment for the minimum amount under the purchase requirement. Revenue for finished goods and work in progress, and for advance consideration paid by the customer, is recognized over the manufacturing period. Revenue for finished goods is measured based on the volumes produced for the fiscal year. For finished products, the total revenue expected in the future from the sale of minimum amounts over the full term of the contract is estimated and allocated to the individual production units. Rebates and material rights to procure expected additional purchase quantities are taken into account in the total revenue from the sale. Revenue for work in progress is measured based on the production costs incurred, which are calculated using the input method taking into account a pro rata margin for the end product (see "Inventories" section in this chapter for explanations of the calculation of production costs). Contract assets are recognized for the corresponding receivables until the products are delivered. The relevant inventories are derecognized when revenue is recognized. When the products are delivered, the contract assets are reversed and trade receivables are recognized.

Under the business model sale of products including organizing freight services, control transfers to the customer on the basis of the agreed terms and conditions of delivery, essentially at the end of the freight service. Thus, revenue is measured and recognized at the invoice amount after deducting transfer taxes and sales deductions. The freight service is not treated as a separate performance obligation.

Tolling agreements for chemical products, research and development work, sales- and product-related services and other long-term services are recognized in revenue over the performance period and at the invoice amount after deducting transfer taxes and sales deductions.

Customer rebates that are not attributable to the business models of manufacturing products or customer-specific products on the basis of long-term sales contracts with contractually defined minimum purchase requirements are recognized in the period in which the revenues are realized.

Sales and other revenues (IAS 18)

In the previous year, revenues were recognized in accordance with the rules of IAS 18. Revenue was recognized net of sales taxes and deductions as soon as delivery had been made or the service rendered. This was normally the case when the significant risks and rewards associated with ownership of the goods passed to the purchaser. It also had to be sufficiently probable that the economic benefits would be obtained, and the costs incurred had to be reliably determinable.

Customer rebates were reflected in the period in which the revenues were realized. Revenues such as license fees, rental income, interest income or dividends that were attributable to a subsequent fiscal year were accrued.

Research and development costs

According to IAS 38, research costs cannot be capitalized, whereas development costs must be capitalized if, and only if, specific narrowly defined conditions are fulfilled. Development costs must be capitalized if it is sufficiently certain that the development activity will generate future economic benefits which will also cover the associated development costs. However, since the development and optimization of products and processes frequently involves uncertainty with regard to the ability to realize future economic benefits, the conditions for capitalization of development costs are generally not met.

Income taxes

This item comprises the income taxes paid or accrued in the individual countries, plus deferred taxes. Income taxes are computed on the basis of local tax rates.

Income tax receivables and liabilities relate to both the respective fiscal year and previous years. They are assessed on the basis of the applicable legislation, taking into account present legal practice judgments and prevailing opinion. Uncertain income tax items are recognized at their expected value provided that payment or reimbursement is considered probable.

In accordance with IAS 12, deferred taxes are calculated for temporary differences between the carrying amounts of assets or liabilities in the statement of financial position and the tax base and for differences arising from consolidation measures or realizable tax loss carryforwards. The calculations are based on tax planning calculations and customary and realizable tax strategies. Deferred taxes are calculated at the rates which are expected to apply in the individual countries at the time of realization, taking into account the period for which deferred taxes may be used and any constraints on the utilization of loss carryforwards. These are based on the statutory regulations in force, or already enacted in relation to future periods, as of the closing date.

The carrying amount of deferred tax assets is reviewed at each closing date and only the amount likely to be realizable due to future taxable income is recognized. Deferred tax assets from loss carryforwards are recognized if it is probable that the carryforwards can be utilized.

Deferred tax assets and liabilities are netted if they relate to income taxes levied by the same tax authorities.

Business acquisitions and divestments

Business acquisitions are accounted for using the acquisition method. At the time of initial control, the acquired assets and liabilities are measured at fair value. The incidental acquisition costs associated with the business acquisition are recognized as expense of the period in which they are incurred.

Divestments of shares in subsidiaries resulting in the loss of control are recognized in profit or loss. In the case of successive share disposals without loss of control, the decline in the majority share is recognized in other comprehensive income and results in an increase in non-controlling interests in equity. If significant influence continues to be exerted after loss of control, an interest in an associate or an investment accounted for using the equity method is recognized. As soon as there is no longer a significant influence on financial and business policy, the remaining interest is classified as a financial asset and recognized at fair value in other comprehensive income or in profit or loss.

Statement of cash flows

The statement of cash flows shows how cash inflows and outflows during the year affected the cash and cash equivalents of the LANXESS Group. Cash flows are classified by operating, investing and financing activities in accordance with IAS 7. The liquidity reported in the statement of cash flows comprises cash and cash equivalents.

The cash flows of continuing operations are reported separately from the cash flows of discontinued operations. The cash flows of discontinued operations are shown combined in one line per area. The previous year's figures are restated accordingly.

The cash flows from operating activities are calculated using the indirect method. This involves eliminating the translation effects, the effects of the initial application of financial reporting standards and the effects of changes in the consolidated group from the changes recognized in the items on the statement of financial position. Therefore, the cash flows calculated by the indirect method cannot be directly derived from the statement of financial position.

Disbursements for the acquisition of property, plant and equipment are included in the cash flows for investing activities after deducting any third-party subsidies. Investments involving finance leases, along with capitalized borrowing costs, are not included. Comparison therefore should not be made between these items and the capital expenditures shown in the schedule of changes in property, plant and equipment.

Payments relating to operating leases are included in cash flows from operating activities. Disbursements made under finance leases where LANXESS is the lessee are recognized as cash outflows for financing activities, while cash inflows under finance leases where LANXESS is the lessor are recognized as cash inflows from investing activities.

Cash flows relating to the financing of pension obligations where future pension payments will be made directly out of external plan assets are allocated to cash flows for operating activities. Cash flows relating to the financing of pension obligations where LANXESS only has a claim to reimbursement of future pension payments (contractual trust arrangement – CTA) are allocated to cash flows for investing activities.

Purchase prices paid or received in connection with acquisitions or divestments of subsidiaries or other business entities are included in the investing cash flows of continuing operations after deducting cash and cash equivalents acquired or divested. These also include purchase price payments for discontinued operations.

Interest and dividends received are also included in investing cash flows, while interest and dividends paid are reflected in financing cash flows.

Global impairment testing procedure and impact

In the LANXESS Group, the impairment testing of non-current assets starts with an analysis to determine whether impairment charges need to be recognized or previously recognized impairment charges reversed. If there are indications that this is the case, the carrying amount of each cash-generating unit is compared with its recoverable amount. In the LANXESS Group these analyses are performed at least once a year.

For impairment testing of assets, the LANXESS Group defines its business units as cash-generating units, with the exception of the Advanced Industrial Intermediates business unit, which is broken down into the cash-generating units Advanced Industrial Intermediates and Antioxidants & Accelerators.

If there is reason to suspect impairment of non-current assets below the level of the cash-generating units, impairment testing is performed at this level and impairment charges or reversals of impairment charges are recognized in profit or loss where necessary.

Cash-generating units to which goodwill is allocated are tested annually for impairment – or more frequently if events or changes in circumstances indicate a possible impairment. The carrying amount of each cash-generating unit, including the goodwill allocated to it, is compared with its recoverable amount. The cash-generating units Advanced Industrial Intermediates and Antioxidants & Accelerators form a group for the impairment testing of the goodwill of the Advanced Industrial Intermediates business unit.

The sale of the investment in ARLANXEO as of December 31, 2018, disposed of the Tire & Specialty Rubbers (Butyl Rubber and Performance Butadiene Rubbers) and High Performance Elastomers business units (High Performance Elastomers and Keltan Elastomers). The goodwill associated with the Tire & Specialty Rubbers business unit was tested in the previous year at the level of the group of the two Butyl Rubber and Performance Butadiene Rubbers business units and is fully disposed of as of December 31, 2018 as a result of the deconsolidation.

The recoverable amount is the higher of the asset's fair value less costs of disposal and the value in use. If the carrying amount of a cash-generating unit exceeds the recoverable amount, an impairment charge is recognized in certain circumstances. The fair value less costs of disposal – which represents the best estimate of the potential sale proceeds at the time of the respective impairment

test – is the amount obtainable from the sale of a cash-generating unit in an arm's-length transaction between knowledgeable, willing parties, less the costs of disposal. The value in use is defined as the present value of future cash flows based on the continuing use of the asset and its retirement at the end of its useful life. The first step in assessing whether to recognize or reverse an impairment charge is to determine the fair value less costs of disposal. If this is lower or higher than the carrying amount of the cash-generating unit, the value in use is then determined. The fair value less costs of disposal is generally calculated using a net present value method which is allocated to Level 3 of the fair value hierarchy (see under "Fair value measurement" in Note [36]).

Determination of the recoverable amount based on the fair value less costs of disposal generally relies on a forecast of future net cash flows. This is based on the planning approved by the management of LANXESS AG, which contains estimates of expected market conditions and other factors such as future raw material prices, energy costs, functional costs, exchange rates and capital expenditures. The interactions between these factors are reflected in the expected net cash flows. The estimates are based on management's past experience, taking account of internal and external economic and industry-specific sources of information. Capacity expansions, reorganization projects and the resulting synergies, provided these can also be used by a third party, are reflected in future net cash flows through estimates. Determination of the value in use is based on a corresponding forecast of future net cash flows. However, cash inflows and outflows relating to expansion projects that have not yet commenced, restructuring that is planned but has not yet been approved, and the associated synergies are not taken into account. Group functional area costs are included if a potential acquirer would have to bear them. The forecasts used to calculate the fair value less costs of disposal and to determine the value in use cover a five-year period. The perpetual annuity calculation is generally based on the last year in the planning period and does not reflect growth rates. Where necessary, adjustments are made to reflect the so-called steady state of the perpetual annuity. Future net cash flows are discounted using the weighted average cost of capital, which is derived according to IAS 36 from capital market models, taking into account the capital structure and business risks specific to the chemical industry, and is extrapolated from external market information.

If a decline in value is determined, an impairment charge is first recognized for any goodwill assigned to the respective cash-generating unit. Any remaining impairment amount is allocated among the other non-current assets of the cash-generating unit in proportion to the carrying amounts on which the impairment test was based. The recoverable amount of any non-current assets below the level of the cash-generating unit is assessed and the loss is allocated, but only up to the recoverable amount of these assets. Any further impairment charge that would have been allocated to these assets is allocated proportionately to the other assets in the cash-generating unit.

Impairment charges are fully recognized in the income statement under other operating expenses and reflected in the segment reporting in the expenses of the respective segments.

If the impairment test on the cash-generating units indicates a need to reverse impairment charges recognized on assets in previous years because the reasons for the impairment no longer exist or have changed, the impairment charge is reversed only up to the amount that would have existed after depreciation or amortization if the impairment had not been recognized. Impairment charges on goodwill are not reversed. Reversals of impairment charges are fully recognized in the income statement under other operating income and reflected in the segment reporting in the income of the respective segments.

The results of the global impairment tests in fiscal year 2017 and 2018 are outlined in the following section.

ESTIMATION UNCERTAINTIES AND THE EXERCISE OF DISCRETION

The preparation of consolidated financial statements in accordance with IFRS entails the selection of accounting policies and valuation principles and the use of forward-looking assumptions and estimates that may affect the measurement of assets and liabilities, income and expenses, and contingent liabilities.

All assumptions and estimates used in the consolidated financial statements are based on management's expectations. Information that could alter these estimates is reviewed continually and may result in adjustments to the carrying amounts of the respective assets and liabilities.

Assumptions and estimates that could materially impact the measurement of the LANXESS Group's assets and liabilities are explained below.

At least once a year, the LANXESS Group conducts impairment tests on its individual cash-generating units or groups of cash-generating units to which goodwill has been allocated. Impairment tests are also conducted if there is an indication of a possible impairment (for further information see the section headed "Global impairment testing procedure and impact"). To determine fair value less costs of disposal, the impairment tests of assets and goodwill were based on net present value methods, which are allocated to Level 3 of the fair value hierarchy.

Management's assumptions and estimates used for the *impairment test conducted on assets* in fiscal year 2018 could differ from the actual values in subsequent periods, necessitating subsequent valuation adjustments. Management's expectations of future net cash flows therefore have an indirect impact on the valuation of goodwill and other assets. The annual impairment tests are based on a discount rate after taxes of 6.7% (previous year: 7.2%), while the impairment tests as of the closing date are based on a discount rate after taxes of 6.7% (previous year: 7.0%). The impairment tests of the cash-generating units showed no need for the recognition of impairment charges in fiscal year 2017 and 2018. Reversals of write-downs recognized on assets in prior years were not required in the previous year.

The annual *impairment test for the goodwill items* is performed on the basis of fair value less costs of disposal. The goodwill items are carried in local currency. The principal goodwill items are explained below.

In fiscal year 2018, the LANXESS Group acquired goodwill of €12 million with the U.S. phosphorus additives business of the Belgian chemicals group Solvay, including its U.S. production site in Charleston. The newly acquired goodwill was allocated to the Additives business unit in the Specialty Additives segment and tested for impairment as of the reporting date. As a result of the newly acquired goodwill and currency effects, the goodwill of the Additives business unit increased to €524 million (previous year: €489 million). The goodwill of the Urethane Systems business unit amounts to €149 million as of December 31, 2018 (previous year: €141 million). The change is due to exchange rate effects. Due to exchange rate effects, goodwill of the Material Protection Products business unit increased to €137 million as of December 31, 2018 (previous year: €133 million). Goodwill of €40 million (previous year: €33 million) is attributable to other business units, which are not described for reasons of materiality.

For the goodwill of the U.S. chemicals group Chemtura, Middlebury, U.S., acquired in the previous year, the purchase price allocation was completed in April 2018. The Chemtura flame retardant and lubricant additives business was combined in the previous year with the LANXESS Plastic Additives and Lubricant Additives operations in the Additives business unit and allocated to the Specialty Additives segment. The Urethane Systems business unit was established for the former Chemtura urethanes business and allocated to the Engineering Materials segment. The former Chemtura business with organometallics was integrated into the LANXESS Advanced Industrial Intermediates business unit in the Advanced Intermediates segment. With the completion of the purchase price allocation, goodwill after currency effects finally changed by €15 million to €626 million as of December 31, 2017, on the basis of new information. €7 million of the increase was allocated to the Additives business unit and €8 million to the Advanced Industrial Intermediates business unit, so as of December 31, 2017, goodwill of €477 million was allocated to the Additives business unit, €141 million to the Urethane Systems business unit and €8 million to the Advanced Industrial Intermediates business unit. The impairment tests of goodwill as of December 31, 2017, would not have had different results on the basis of the changes in the final purchase price allocation. There would have been no write-downs to recognize.

In the previous year, the LANXESS Group also acquired goodwill of €20 million from the acquisition of all shares in the biotech startup IMD Natural Solutions GmbH, Dortmund, Germany. The acquired goodwill is allocated to the Material Protection Products business unit in the Performance Chemicals segment and was tested for impairment as of the reporting date in the previous year.

Information on calculating the net cash flows can be found in this chapter and the previous chapter. The Additives and Urethane Systems business units are dependent on various processing industries and the Material Protection Products business unit is dependent on the development of various industries. The estimates of future market developments on which detailed planning is based are dependent on the respective customer industries and draw on management's past experience, taking account of internal and external economic and industry-specific sources of information. Average annual sales growth of 4% (previous year: 4%) was planned for the Additives business unit, 7% (previous year: 5%) for the Urethane Systems business unit, and 5% (previous year: 5%) for the Material Protection Products business unit.

For the impairment tests of material goodwill, lower EBITDA values than in the last planning period were assumed for the steady state in the current fiscal year for the Additives business unit in the perpetual annuity calculation. Higher EBITDA values than in the last planning period were assumed for the steady state in the perpetual annuity calculation in the current fiscal year for the Urethane Systems business units and in the previous year for the Additives business unit.

The impairment test performed on goodwill items in fiscal year 2017 and 2018 did not indicate any need for recognition of impairment charges. Neither a one-percentage-point increase in the discount rate nor a 10% reduction in expected future net cash flows would have led to the recognition of an impairment charge on goodwill items.

In the preparation of the consolidated financial statements, the impact of a potential Brexit was assessed. Particularly Great Britain leaving the European customs union and potential new approvals under the regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) could prolong standard delivery times in the event of a hard Brexit. In order to guarantee standard delivery times, measures are intended to establish inventories and for a constant sharing of information with customers and suppliers. In view of these measures, no material negative impact on business performance is anticipated. However, as of the time of the preparation of the financial statements, conclusive assessments of the political framework and the associated implications are not possible, and therefore may be subject to future changes.

Furthermore, the impact of an escalating trade conflict between the U.S. and the People's Republic of China was investigated. However, the analyses showed that only very isolated products in the portfolio are affected, and that there is only a low level of goods flows from China to the U.S. For this reason, the direct consequences of the conflict are not expected to have a significantly negative impact on operations.

The recognition and measurement of provisions are also affected by assumptions as to the probability of utilization, timing, the underlying discount rate and the absolute level of risk. For the 2018 consolidated financial statements, the LANXESS Group performed sensitivity analyses on provisions, as required by IFRS. These involved calculating the impact of isolated variations in the parameters used, especially the forecast probability of occurrence, discount rate and absolute level of risk. The outcome of these sensitivity analyses shows that variations in the assumptions described above would not have a material impact on the level of other provisions reported in the consolidated financial statements of the LANXESS Group. For further information on the sensitivity analyses relating to provisions for pensions and other post-employment benefits, [see Note \[14\]](#).

Defined benefit pension plans also necessitate actuarial computations and measurements. The section on provisions for pensions and other post-employment benefits contains information on the assumptions on which the actuarial calculations and estimates were based ([see Note \[14\]](#)).

Further, the LANXESS Group is affected by legal disputes. As an international chemicals group, LANXESS is exposed to administrative or court proceedings in the normal course of business and may be again in the future. Administrative and court proceedings generally involve complex technical and/or legal issues and are therefore subject to a number of imponderables. The outcomes of any current or future proceedings cannot be predicted with certainty. It is therefore possible that legal judgments could give rise to expenses that are not covered, or not fully covered, by recognized provisions or equivalent insurance and that could materially affect the business operations, revenues, earnings or cash flows of the LANXESS Group.

The establishment of provisions for environmental protection and remediation measures also involves uncertainty and requires calculations and estimates of future costs. Information about this can be found in the section headed "Other non-current and current provisions" ([see Note \[15\]](#)).

There is also uncertainty surrounding the assessment of certain tax situations by the tax authorities. Although the LANXESS Group believes it has presented all tax-relevant information correctly and in compliance with the law, it is possible that the tax authorities may occasionally reach different conclusions. Provisions have been established where changes in tax assessments are probable. In addition, charges from tax risks from previous

years are not considered to be likely. In the event of unfavorable developments, LANXESS could be faced with additional charges in the low- to mid-double-digit millions of euros. The calculations are principally based on experience of the outcome of previous tax audits and their impact on the subsequent periods and the applicable legislation, taking into account present legal practice and prevailing opinion. This could result in deviations from the current estimates in the future.

In the context of business acquisitions, the application of the acquisition method requires certain estimates and assessments as of the acquisition date. This relates in particular to the determination of the fair value, the estimation of useful lives of acquired intangible assets and property, plant and equipment, and the determination of the fair values of assumed liabilities. The measurement is essentially based on future cash inflows and outflows. Deviations between the actual cash inflows and outflows and those assumed at the acquisition date can significantly influence future net income. As a rule, the purchase price allocation is performed in consultation with external experts. In the case of lower-value acquisitions, the purchase price allocation is mostly based on own estimates and measurements. The estimates and measurements are based on knowledge available on and immediately after the acquisition date. They can be adjusted within one year of the date of acquisition to reflect new information and findings.

When measuring revenue under the business model of long-term sales contracts with a contractually defined minimum purchase requirement, the total revenue expected in the future from sale of the minimum amount is estimated for the full term of the contract and allocated to the individual deliveries, or in the case of the production of customer-specific products to the individual production units. Estimates are based on the current planning for forecast future sales prices and quantities. In particular, sales prices can change over the term of a contract as a result of mechanisms for adjusting prices (formula prices for production factors, bulk prices, rebate agreements), hence deviations from current estimates may arise in the future.

Other significant estimates and discretion are used to assess the useful lives of intangible assets and property, plant and equipment, the capitalization of development costs, the probability of collecting receivables and other assets, the valuation of inventories and the ability to realize tax claims and deferred tax assets recognized for temporary differences and tax loss carryforwards.

COMPANIES CONSOLIDATED

The consolidated financial statements of the LANXESS Group include the parent company LANXESS AG and all domestic and foreign affiliates.

	EMEA (excl. Germany)	Germany	North America	Latin America	Asia-Pacific	Total
Fully consolidated companies (incl. parent company)						
Jan. 1, 2018	40	12	13	8	30	103
Retirements	(9)	(1)	(4)	(2)	(4)	(20)
Mergers	–	(2)	–	–	–	(2)
Dec. 31, 2018	31	9	9	6	26	81
Consolidated associates and jointly controlled entities						
Jan. 1, 2018	–	2	1	–	–	3
Changes	–	–	–	–	–	0
Dec. 31, 2018	0	2	1	0	0	3
Non-consolidated companies						
Jan. 1, 2018	2	3	1	4	2	12
Retirements	–	–	–	(1)	–	(1)
Dec. 31, 2018	2	3	1	3	2	11
Total						
Jan. 1, 2018	42	17	15	12	32	118
Additions	–	–	–	–	–	0
Retirements	(9)	(1)	(4)	(3)	(4)	(21)
Mergers	–	(2)	–	–	–	(2)
Dec. 31, 2018	33	14	11	9	28	95

The sale of the remaining 50% interest in ARLANXEO to the Saudi Aramco subsidiary Aramco Overseas Holdings Coöperatief U.A., The Hague, Netherlands, was completed as of December 31, 2018. On closing of the transaction, the interest in ARLANXEO Holding B.V., Maastricht, Netherlands, including 15 subsidiaries, was transferred to the former partner Saudi Aramco.

The companies Chemours Jersey Ltd., Jersey, Great Britain, Chemtura Shanghai Co. Ltd., Shanghai, China, and LANXESS Solutions Belgium N.V., Antwerp, Belgium, were liquidated during the reporting period.

Furthermore, LANXESS Buna GmbH, Marl, Germany, was merged into LANXESS Deutschland GmbH, Cologne, Germany, and LANXESS OMS Holding GmbH, Bergkamen, Germany, was merged into LANXESS Organometallics GmbH, Bergkamen, Germany.

Furthermore, the companies LANXESS Laurel US LLC, Wilmington, New Castle, U.S., and LANXESS Laurel de Mexico, S.A. de C.V., Reynosa, Mexico, were sold in the reporting year.

Europigments, S.L., Barcelona, Spain, and Rhein Chemie (Qingdao) Co., Ltd., Qingdao, China, are production companies in which LANXESS has a stake of 52% and 90%, respectively. These companies are fully consolidated because LANXESS holds the majority of the voting rights and therefore exercises control. The non-controlling interests in these companies have a negligible influence on the activities and cash flows of the LANXESS Group.

DuBay Polymer GmbH, Hamm, Germany, is included in the consolidated financial statements as a joint operation in accordance with IFRS 11 on a pro rata basis because the partners exercise joint control and purchase most of its output together. LANXESS's share in its capital is 50%. The purpose of the company is to produce polybutylene terephthalate base resins and blends for the joint owners and their affiliated companies. This business relationship does not involve any material risks for LANXESS.

Rubicon LLC, Salt Lake City, U.S., is included in the consolidated financial statements as a joint operation in accordance with IFRS 11 on a pro rata basis because the partners exercise joint control and purchase all of its output. LANXESS's share in its capital is 50%. The purpose of the company is primarily to produce aniline, diphenylamines, methylene diphenyl isocyanates and polyols for the joint owners and their affiliated companies. This business relationship does not involve any material risks for LANXESS.

Further, Currenta GmbH & Co. OHG, Leverkusen, Germany, is an associate accounted for in the consolidated financial statements using the equity method (see Note [3]). LANXESS's share in its capital is 40%. Given its ability to contribute to material aspects of financial and business policy decisions, LANXESS is able to exert a significant influence. Currenta GmbH & Co. OHG principally provides site services in the areas of energy, infrastructure and logistics for LANXESS's production sites in Germany. Due to its status as a personally liable partner, LANXESS may be required to inject further capital in the future. Transactions with this company are outlined in Note [34].

Cash transfers from companies in Argentina, Brazil, China, India, Republic of Korea, Russia, South Africa and Taiwan are subject to restrictions as a result of regulated capital markets. These affect approximately 5% (previous year: 13%) of the LANXESS Group's cash, cash equivalents and near-cash assets.

Non-consolidated companies are accounted for at fair value. These companies are immaterial to the LANXESS Group's earnings, asset and financial position, since together they account for less than 0.1% of Group sales and less than 0.1% of Group equity.

Additions from acquisition in the current fiscal year

On February 7, 2018, LANXESS acquired the U.S. phosphorus additives business from the Belgian chemicals group Solvay including its U.S. production site in Charleston. The site manufactures phosphorus additives and numerous derived products such as flame retardant additives and intermediates for agrochemicals. The production facility augments the global production network for phosphorus- and bromine-based flame retardants, especially on the U.S. market. The business was integrated into the Additives business unit in the Specialty Additives segment. The purchase price of €54 million was paid out of existing liquidity.

The acquisition was accounted for as a business combination in accordance with IFRS 3. For the purchase price allocation, the identifiable assets, liabilities and contingent liabilities of the business acquired were recognized at fair value. The intangible assets identified as part of the purchase price allocation are mainly customer relationships. The purchase price allocation was completed within the measurement period and is to be deemed final as of December 31, 2018. The acquired business has contributed €52 million to sales since the acquisition date and did not have any material effect on earnings of the LANXESS Group. Group earnings were impacted by charges as a result of the purchase price allocation. If the business had been already acquired as of January 1, 2018, the contribution to LANXESS Group sales and to net income would have changed only slightly.

In connection with this acquisition, transaction costs of €2 million were recognized in other operating expenses in the prior year. The goodwill of €12 million resulting from the acquisition primarily reflects synergy effects and alternative production capacity. Some customers and the chemical properties of the products and the transport routes associated therewith require geographical proximity. The local advantage of the production site is reflected in goodwill. The goodwill is tax-deductible.

The following table shows the effects of the acquisition on the Group's assets:

Additions from Acquisition

€ million	Fair values at first-time consolidation
Intangible assets	13
Property, plant and equipment	24
Inventories	6
Total assets	43
Non-current liabilities	0
Current liabilities	1
Total liabilities	1
Net acquired assets (excl. goodwill)	42
Cost of acquisition	54
Goodwill	12

Additions from acquisitions in the previous year

LANXESS acquired the U.S. group Chemtura on April 21, 2017. It was included in the consolidated financial statements of LANXESS for the first time as of this date. The business involving flame retardant and lubricant additives acquired was assigned to the Additives segment, while the organometallics business was integrated into the Advanced Intermediates segment. The urethanes division of Chemtura constitutes a separate business unit in the Engineering Materials segment.

The acquisition was accounted for as a business combination in accordance with IFRS 3. For the purchase price allocation, the identifiable assets, liabilities and contingent liabilities of the business acquired were recognized at fair value. IFRS 3 permits adjustment of the purchase price allocation within one year after the acquisition date on the basis of new knowledge and information. The purchase price allocation for Chemtura was completed in April 2018. Compared with the information disclosed in the Notes to the Consolidated Financial Statements for fiscal year 2017, non-current income tax liabilities and goodwill have finally risen by €15 million. The figures in the consolidated statement of financial position as of December 31, 2017 were adjusted accordingly.

Intangible assets of €769 million were established in the context of the purchase price allocation, comprising €536 million for customer relationships, €105 million for trademarks and €128 million in other intangible assets. The goodwill of €698 million resulting from the acquisition mainly reflects additional sales opportunities arising with new customers primarily in the European and North American markets. The goodwill also reflects an improvement in the cost structure and the procurement of raw materials, as well as higher capacity utilization in production. €531 million of the goodwill is attributable to the Additives business unit, €159 million to Urethane Systems and €8 million to Advanced Industrial Intermediates. The goodwill is not tax-deductible.

The following table shows the effects of the acquisition on the Group's assets:

Additions from Acquisition of Chemtura in the Previous Year

€ million	Fair values at first-time consolidation
Intangible assets	769
Property, plant and equipment	847
Inventories	349
Trade receivables	219
Cash and cash equivalents	215
Other assets	246
Total assets	2,645
Provisions for pensions and other post-employment benefits	217
Other non-current liabilities	354
Trade payables	169
Other current financial liabilities	461
Other current liabilities	128
Total liabilities	1,329
Net acquired assets (excl. goodwill)	1,316
Cost of acquisition	2,014
Goodwill	698

On December 18, 2017, LANXESS acquired all shares in the biotech startup IMD Natural Solutions GmbH, Dortmund, Germany, and thus expanded its expertise in biotechnology. With regard to the purchase price allocation, there have been no changes compared with the information disclosed in the Notes to the Consolidated Financial Statements for fiscal year 2017 by December 31, 2018. The contingent consideration of €11 million included in other financial liabilities at the end of 2017 was paid out in the fiscal year 2018.

Additions from Acquisition of IMD Natural Solutions in the Previous Year

€ million	Fair values at first-time consolidation
Intangible assets	15
Property, plant and equipment	0
Inventories	0
Cash and cash equivalents	1
Other current assets	1
Total assets	17
Non-current liabilities	7
Current liabilities	0
Total liabilities	7
Net acquired assets (excl. equity)	10
Cost of acquisition	30
Goodwill	20

Discontinued operations

As part of its realignment, on April 1, 2016, LANXESS and Saudi Aramco formed a strategic alliance for the synthetic rubber business named ARLANXEO in which each party held a 50% interest. ARLANXEO was included in the consolidated financial statements of the LANXESS Group because the casting vote of the chairman of the Shareholders' Committee of ARLANXEO, who is appointed by LANXESS, gave LANXESS the opportunity to determine key aspects of its financial and business policy. Since April 1, 2018, a year before the planned end of consolidation, ARLANXEO has been accounted for as a discontinued operation according to IFRS 5 and reported accordingly. LANXESS sold its 50% interest in ARLANXEO to the Saudi Aramco subsidiary Aramco Overseas Holdings Coöperatief U.A., The Hague, Netherlands, and derecognized its investment in ARLANXEO on December 31, 2018.

The discontinued operations are recognized and measured according to the same financial reporting standards and interpretations as continuing operations.

The carrying amounts of the assets and liabilities of ARLANXEO disposed of are shown in the following table:

Carrying Amounts of Assets and Liabilities Disposed of

€ million	Dec. 31, 2018
Property, plant and equipment and intangible assets	1,834
Inventories and trade receivables	1,035
Other assets	379
Total assets	3,248
Provisions	309
Trade payables	331
Other liabilities	263
Total liabilities	903

The presentation of the LANXESS Group's income statement focuses on the calculation of earnings from continuing operations. Earnings from discontinued operations are only shown in one line, which is explained in more detail below. The intangible assets and property, plant and equipment of ARLANXEO were not subject to any further amortization or depreciation from April 1, 2018. Intra-Group deliveries and services, which are continued either with ARLANXEO or with third parties following the deconsolidation of ARLANXEO, are shown in continuing operations. The elimination entries as part of the consolidation of expense and income are assigned fully to discontinued operations. The prior-year periods in the income statement are adjusted accordingly.

In detail, earnings from discontinued operations are as follows:

Income Statement from Discontinued Operations

€ million	2017	2018
Sales	3,134	3,180
Cost of sales	(2,723)	(2,560)
Gross profit	411	620
Other functional costs	(275)	(234)
Operating result (EBIT)	136	386
Financial result	(30)	(34)
Income before income taxes	106	352
Income taxes	(42)	(101)
Income after income taxes	64	251

The cash flows of continuing operations are shown separately from the cash flows of ARLANXEO in the cash flow statement. The cash flows of ARLANXEO are shown combined in one line per area. The previous year's figures are restated accordingly.

The preliminary purchase price for the disposal of the investment in ARLANXEO to Saudi Aramco was €1,427 million and was settled by transferring cash. The cash and cash equivalents disposed of in the sale amounted to €123 million. The income taxes incurred in connection with the sale amount to €33 million. Income taxes on the ordinary activities of discontinued operations amounted to €68 million.

The gain on the disposal of the interest in ARLANXEO amounted to €90 million and is reported in the LANXESS Group income statement under "Income after income taxes from discontinued operations".

Gain on the Disposal

€ million	Dec. 31, 2018
Total consideration received	1,427
Net assets sold	2,345
Non-controlling interests	(1,179)
Cumulative gains or losses arising from financial instruments measured at FV OCI with recycling that have to be reclassified from OCI to profit or loss at the time of loss of control	(12)
Cumulative translation gains or losses with regard to net assets sold and corresponding hedging instruments that have to be reclassified to profit or loss at the time of loss of control	(126)
Gain on the disposal before income taxes	123
Income taxes	(33)
Gain on the disposal	90

The gain on disposal before income taxes is included in the income statement from discontinued operations under other functional costs.

Other information on companies consolidated

The following table lists the affiliated companies in accordance with Section 313, Paragraph 2 of the German Commercial Code:

Company Name and Domicile

	Interest held in %
Fully consolidated companies	
Germany	
LANXESS AG, Cologne	–
Bond-Laminates GmbH, Brilon	100
IAB Ionenaustauscher GmbH Bitterfeld, Greppin	100
IMD Natural Solutions GmbH, Dortmund	100
LANXESS Accounting GmbH, Cologne	100
LANXESS Deutschland GmbH, Cologne	100
LANXESS Distribution GmbH, Leverkusen	100
LANXESS Organometallics GmbH, Bergkamen	100
Saltigo GmbH, Leverkusen	100
EMEA (excluding Germany)	
Anderol B.V., Venlo, Netherlands	100
Antec International Ltd., Sudbury, Suffolk, Great Britain	100
Chemtura France S.A.S., Fitz James, France	100
Europigments, S.L., Barcelona, Spain	52
Great Lakes Chemical, Netherlands, B.V., Amsterdam, Netherlands	100
Great Lakes Holding S.A.S., Fitz James, France	100
LANXESS (Pty) Ltd., Modderfontein, South Africa	100
LANXESS Central Eastern Europe s.r.o., Bratislava, Slovakia	100
LANXESS CISA (Pty) Ltd., Newcastle, South Africa	100
LANXESS Chemicals, S.L., Barcelona, Spain	100
LANXESS Chrome Mining (Pty) Ltd., Modderfontein, South Africa	74
LANXESS Epierre SAS, Epierre, France	100
LANXESS Holding Switzerland AG, Frauenfeld, Switzerland	100
LANXESS Holding UK Unlimited, Manchester, Great Britain	100
LANXESS Investments Netherlands B.V., Amsterdam, Netherlands	100
LANXESS Kimya Ticaret Limited Şirketi, Istanbul, Turkey	100
LANXESS Limited, Newbury, Great Britain	100
LANXESS Manufacturing Netherlands B.V., Amsterdam, Netherlands	100
LANXESS N.V., Antwerp, Belgium	100
LANXESS S.A.S., Courbevoie, France	100
LANXESS S.r.l., Milan, Italy	100
LANXESS Sales Netherlands B.V., Amsterdam, Netherlands	100
LANXESS Services Switzerland GmbH, Frauenfeld, Switzerland	100
LANXESS Solutions Italy S.r.l., Latina, Italy	100
LANXESS Solutions UK Ltd., Manchester, Great Britain	100
LANXESS Switzerland GmbH, Frauenfeld, Switzerland	100
LANXESS Urethanes UK Ltd., Baxenden NR Accrington, Great Britain	100

Company Name and Domicile

	Interest held in %
Fully consolidated companies	
OOO LANXESS, Moscow, Russia	100
OOO LANXESS Lipetsk, Lipetsk, Russia	100
Sybron Chemical Industries Nederland B.V., Ede, Netherlands	100
Sybron Chemicals International Holdings Ltd., Newbury, Great Britain	100
North America	
Assured Insurance Company, Montpelier, U.S.	100
Great Lakes Chemical Corporation, Wilmington, New Castle, U.S.	100
LANXESS Canada Co./Cie, Elmira, Canada	100
LANXESS Corporation, Pittsburgh, U.S.	100
LANXESS Holding Company US Inc., Wilmington, New Castle, U.S.	100
LANXESS Services US LLC, Wilmington, New Castle, U.S.	100
LANXESS Solutions US Inc., Wilmington, New Castle, U.S.	100
LANXESS Sybron Chemicals Inc., Birmingham, U.S.	100
Sybron Chemical Holdings Inc., Birmingham, U.S.	100
Latin America	
Chemtura Corporation Mexico, S. de R.L. de C.V., México, D.F., Mexico	100
LANXESS Indústria de Poliuretanos e Lubrificantes Ltda., Rio Claro, Brazil	100
LANXESS Indústria de Produtos Químicos e Plásticos Ltda., São Paulo, Brazil	100
LANXESS S.A. de C.V., Mexico City, Mexico	100
LANXESS S.A., Buenos Aires, Argentina	100
Rhein Chemie Uruguay S.A., Colonia, Uruguay	100
Asia-Pacific	
Chemtura Chemicals Nanjing Co. Ltd., Nanjing, China	100
Chemtura China Holding Co. Ltd., Shanghai, China	100
LANXESS (Changzhou) Co., Ltd., Changzhou, China	100
LANXESS (Liyang) Polyols Co., Ltd., Liyang, China	100
LANXESS (Ningbo) Pigments Co., Ltd., Ningbo City, China	100
LANXESS (Wuxi) High Performance Composite Materials Company Limited, Wuxi, China	100
LANXESS Additives Hong Kong Ltd., Hong Kong, Hong Kong	100
LANXESS Additives Taiwan Ltd., Kaohsiung, Taiwan	100
LANXESS Advanced Materials (Nantong) Co. Ltd., Nantong, China	100
LANXESS Chemical (China) Co., Ltd., Shanghai, China	100
LANXESS Electronic Materials L.L.C., Gyeonggi-do, Republic of Korea	100
LANXESS Hong Kong Limited, Hong Kong, Hong Kong	100
LANXESS India Private Ltd., Thane, India	100
LANXESS K.K., Tokyo, Japan	100
LANXESS Korea Limited, Seoul, Republic of Korea	100
LANXESS Pte. Ltd., Singapore, Singapore	100
LANXESS Pty Ltd., Granville, Australia	100

Company Name and Domicile

	Interest held in %
Fully consolidated companies	
LANXESS Shanghai Pigments Co., Ltd., Shanghai, China	100
LANXESS Solutions Australia Pty. Ltd., West Gosford, Australia	100
LANXESS Solutions India Private Ltd., New Delhi, India	100
LANXESS Solutions Japan K.K., Tokyo, Japan	100
LANXESS Solutions Korea Inc., Gyeonggi-do, Republic of Korea	100
LANXESS Solutions Singapore Pte. Ltd., Singapore, Singapore	100
LANXESS Specialty Chemicals Co., Ltd., Shanghai, China	100
LANXESS Taiwan Ltd., Kaohsiung, Taiwan	100
Rhein Chemie (Qingdao) Co., Ltd., Qingdao, China	90
Jointly controlled entities	
Germany	
DuBay Polymer GmbH, Hamm	50
North America	
Rubicon LLC, Salt Lake City, U.S.	50
Associate accounted for using the equity method	
Germany	
Currenta GmbH & Co. OHG, Leverkusen	40
Non-consolidated immaterial subsidiaries	
Germany	
LANXESS Middle East GmbH, Cologne	100
CheMondis GmbH, Cologne (formerly: LANXESS Digital GmbH, Berlin)	100
Siebte LXS GmbH, Cologne	100
EMEA (excluding Germany)	
Gulf Stabilizers Industries Sales FZCO, Dubai, UAE	52
W. Hawley & Son Ltd., Newbury, Great Britain	100
North America	
LANXESS Energy LLC, Wilmington, New Castle, U.S.	100
Latin America	
Comercial Andinas Ltda., Santiago de Chile, Chile	100
Crompton Servicios, S.A. de C.V., México, D.F., Mexico	100
Asia-Pacific	
LANXESS Thai Co., Ltd., Bangkok, Thailand	100
PCTS Specialty Chemicals Malaysia (M) Sdn. Bhd., Kuala Lumpur, Malaysia	100
Other non-consolidated immaterial companies	
Latin America	
Hidrax Ltda., Taboão da Serra, Brazil	39

NOTES TO THE STATEMENT OF FINANCIAL POSITION

1 | Intangible Assets

Changes in intangible assets were as follows:

Changes in Intangible Assets in 2017

€ million	Acquired goodwill	Other intangible assets	Advance payments	Total
Cost of acquisition or generation, Dec. 31, 2016	261	487	36	784
Acquisitions	718	784	–	1,502
Capital expenditures	–	17	22	39
Disposals	–	(9)	0	(9)
Reclassifications	–	9	(9)	0
Exchange differences	(98)	(92)	0	(190)
Cost of acquisition or generation, Dec. 31, 2017	881	1,196	49	2,126
Accumulated amortization and write-downs, Dec. 31, 2016	(13)	(277)	0	(290)
Amortization and write-downs in 2017	–	(71)	0	(71)
of which write-downs	–	(9)	0	(9)
Reversals of impairment charges	–	–	–	0
Disposals	–	7	0	7
Reclassifications	–	0	0	0
Exchange differences	2	14	–	16
Adjustments in accordance with IFRS 5	–	(4)	–	(4)
Accumulated amortization and write-downs, Dec. 31, 2017	(11)	(331)	0	(342)
Carrying amounts, Dec. 31, 2017	870	865	49	1,784

Prior-year figures restated

Changes in Intangible Assets in 2018

€ million	Acquired goodwill	Other intangible assets	Advance payments	Total
Cost of acquisition or generation, Dec. 31, 2017	881	1,196	49	2,126
Adjustments in accordance with IFRS 5	(70)	(119)	(2)	(191)
Acquisitions	12	13	–	25
Capital expenditures	–	21	40	61
Disposals	–	(3)	–	(3)
Reclassifications	–	13	(13)	0
Inflation adjustments IAS 29	–	2	–	2
Exchange differences	34	26	0	60
Cost of acquisition or generation, Dec. 31, 2018	857	1,149	74	2,080
Accumulated amortization and write-downs, Dec. 31, 2017	(11)	(331)	0	(342)
Adjustments in accordance with IFRS 5	4	107	–	111
Amortization and write-downs in 2018	–	(85)	0	(85)
of which write-downs	–	(1)	–	(1)
Reversals of impairment charges	–	0	–	0
Disposals	–	3	–	3
Reclassifications	–	0	0	0
Inflation adjustments IAS 29	–	(1)	–	(1)
Exchange differences	0	(2)	–	(2)
Accumulated amortization and write-downs, Dec. 31, 2018	(7)	(309)	0	(316)
Carrying amounts, Dec. 31, 2018	850	840	74	1,764

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

The changes due to acquisitions in fiscal year 2018 relate to the acquisitions of the U.S. phosphorus additives business of the Belgian chemicals group Solvay.

In the previous year, changes due to acquisitions related in particular to the acquisition of the U.S. chemicals group Chemtura.

The purchase price allocation for Chemtura was completed in April 2018. Goodwill then increased by €15 million as against the previous year on account of new information.

2 | Property, Plant and Equipment

Changes in property, plant and equipment were as follows:

Changes in Property, Plant and Equipment in 2017

€ million	Land and buildings	Technical equipment and machinery	Other fixtures, fittings and equipment	Advance payments and assets under construction	Total
Cost of acquisition or construction, Dec. 31, 2016	1,900	7,755	358	377	10,390
Acquisitions	204	586	8	49	847
Capital expenditures	18	148	19	336	521
Disposals	(12)	(78)	(17)	(4)	(111)
Reclassifications	38	193	17	(248)	0
Exchange differences	(99)	(311)	(13)	(20)	(443)
Cost of acquisition or construction, Dec. 31, 2017	2,049	8,293	372	490	11,204
Accumulated depreciation and write-downs, Dec. 31, 2016	(1,046)	(5,556)	(266)	(3)	(6,871)
Depreciation and write-downs in 2017	(48)	(259)	(32)	(1)	(340)
of which write-downs	(11)	(26)	(1)	(1)	(39)
Reversals of impairment charges	0	1	–	–	1
Disposals	11	80	17	2	110
Reclassifications	0	0	0	0	0
Exchange differences	26	145	8	0	179
Adjustments in accordance with IFRS 5	(33)	(184)	(7)	0	(224)
Accumulated depreciation and write-downs, Dec. 31, 2017	(1,090)	(5,773)	(280)	(2)	(7,145)
Carrying amounts, Dec. 31, 2017	959	2,520	92	488	4,059

Prior-year figures restated

Changes in Property, Plant and Equipment in 2018

€ million	Land and buildings	Technical equipment and machinery	Other fixtures, fittings and equipment	Advance payments and assets under construction	Total
Cost of acquisition or construction, Dec. 31, 2017	2,049	8,293	372	490	11,204
Adjustments in accordance with IFRS 5	(801)	(3,005)	(87)	(149)	(4,042)
Acquisitions	9	14	1	0	24
Capital expenditures	8	77	19	352	456
Disposals	(3)	(50)	(18)	(2)	(73)
Reclassifications	37	188	16	(241)	0
Inflation adjustments IAS 29	6	3	1	0	10
Exchange differences	(7)	0	(3)	0	(10)
Cost of acquisition or construction, Dec. 31, 2018	1,298	5,520	301	450	7,569
Accumulated depreciation and write-downs, Dec. 31, 2017	(1,090)	(5,773)	(280)	(2)	(7,145)
Adjustments in accordance with IFRS 5	362	1,989	68	0	2,419
Depreciation and write-downs in 2018	(44)	(269)	(33)	(1)	(347)
of which write-downs	(5)	(7)	(1)	(1)	(14)
Reversals of impairment charges	0	1	–	0	1
Disposals	3	50	18	0	71
Reclassifications	0	0	0	0	0
Inflation adjustments IAS 29	(1)	(2)	(1)	–	(4)
Exchange differences	4	7	2	0	13
Accumulated depreciation and write-downs, Dec. 31, 2018	(766)	(3,997)	(226)	(3)	(4,992)
Carrying amounts, Dec. 31, 2018	532	1,523	75	447	2,577

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

The changes due to acquisitions in fiscal year 2018 relate to the acquisitions of the U.S. phosphorus additives business of the Belgian chemicals group Solvay.

Write-downs were recognized on land and buildings, technical equipment and machinery, and other fixtures, fittings and equipment due to the closure of production sites in China and Brazil as well as reorganization and other value-decreasing events.

Capitalized property, plant and equipment includes assets with the following gross and net values held under finance leases:

Assets Held Under Finance Leases

€ million	Dec. 31, 2017		Dec. 31, 2018	
	Gross carrying amount	Net carrying amount	Gross carrying amount	Net carrying amount
Buildings	4	3	2	1
Technical equipment and machinery	86	47	13	6
Fittings and equipment	16	8	20	10
	106	58	35	17

The year-on-year decrease of assets held under finance leases essentially results from the sale of the investment in ARLANXEO.

Directly attributable borrowing costs of €3 million (previous year: €3 million) were capitalized. An annual average cost of debt for the LANXESS Group of 2.6% (previous year: 2.7%) was used for capitalization.

3 | Investments Accounted for Using the Equity Method

As in the previous year, Currenta GmbH & Co. OHG, Leverkusen, Germany, was accounted for using the equity method.

The following tables show the main items of the income statements, statements of comprehensive income and statements of financial position of that company:

Data from the Income Statement and Statement of Comprehensive Income

€ million	2017	2018
Sales	1,304	1,432
Operating result (EBIT)	105	128
Income after income taxes	61	82
Other comprehensive income, net of income tax	28	(17)
Total comprehensive income	89	65

Data from the Statement of Financial Position

€ million	Dec. 31, 2017	Dec. 31, 2018
Non-current assets	810	887
Current assets	462	481
Total assets	1,272	1,368
Non-current liabilities	1,076	1,099
Current liabilities	315	347
Total liabilities	1,391	1,446
Equity	(119)	(78)
Adjustment of LANXESS's interest and equity valuation	62	37
Pro rata loss not recognized in consolidated financial statements	57	41
Investments accounted for using the equity method	0	0

The carrying amount of the investment in Currenta GmbH & Co. OHG was unchanged from the previous year at €0 million. As of the reporting date, a share of the accounting loss amounting to €41 million (previous year: €57 million) was not recognized. The change resulted from the loss-increasing profit transfer of €9 million, the loss-reducing income of €32 million and the loss-increasing losses of €7 million recognized in other comprehensive income, which are not subsequently reclassified to profit or loss. In the previous year, the unrecognized loss increased by €10 million as a result of the loss-increasing profit transfer of €45 million, the loss-reducing income of €24 million and the gains of €11 million recognized in other comprehensive income.

4 | Investments in Other Affiliated Companies

This item contains interests in other affiliated companies totaling €2 million (previous year: €9 million). The year-on-year decline primarily results from the change in the recognition of two financial instruments of €6 million to other non-current assets in accordance with IFRS 9.

5 | Derivative Financial Instruments

The derivative financial instruments held by the LANXESS Group comprise forward exchange, forward commodity and forward interest rate contracts as well as embedded derivatives separated from contracts not designated as hedging instruments. They are capitalized in the consolidated financial statements for fiscal year 2018 at a total fair value of €4 million (previous year: €52 million). Instruments with a negative fair value totaling €28 million (previous year: €14 million) are recognized as liabilities.

Derivative Financial Instruments

€ million	Dec. 31, 2017		
	Notional amount	Positive fair values	Negative fair values
Current forward exchange contracts	2,581	45	(12)
Current forward commodity contracts	4	0	–
Non-current forward exchange contracts	241	5	(2)
Non-current forward interest rate contracts	500	0	–
Long-term embedded derivatives not designated as hedging instruments	–	2	–
	3,326	52	(14)

Derivative Financial Instruments

€ million	Dec. 31, 2018		
	Notional amount	Positive fair values	Negative fair values
Current forward exchange contracts	1,139	4	(25)
Current forward commodity contracts	5	0	0
Non-current forward exchange contracts	68	0	(3)
Non-current forward interest rate contracts	–	–	–
Long-term embedded derivatives not designated as hedging instruments	–	–	0
	1,212	4	(28)

Forward exchange hedges

Currency hedges are used for the future revenue of companies of the LANXESS Group when the currency in which the planned revenue is denominated differs from the company's functional currency and significant foreign currency positions are expected. Set hedging ratios have been defined for subsequent years. The hedges are due to mature in the respective planning months. The hedges could become ineffective as a result of revenue possibly deferred to other periods. There are currently no cases of changes in the timing of revenue in excess of the hedged volume.

Forward commodity contracts

Hedges on the prices of raw materials can be used for future purchases of raw materials by the companies of the LANXESS Group where procurement volumes are planned on the basis of existing procurement agreements. The hedges are forward commodity contracts and based on a monthly planned procurement volume. Production facility shutdowns could reduce procurement volumes and cause the hedges to become ineffective. No relevant production facility shutdowns are currently known.

Forward interest rate contracts

Interest rate risks for future refinancing of the LANXESS Group can be hedged with interest rate swaps. For this purpose, the hedging instruments are concluded with matching maturities on the basis of a planned refinancing requirement. The hedges can become ineffective if the refinancing date is moved. The forward interest rate contracts in place in the previous year were recognized in other comprehensive income on the issue of a new bond in May 2018, and are reversed in profit or loss over the original term of the hedges.

Forward Exchange, Forward Interest Rate and Forward Commodity Hedges 2017

€ million	Nominal amount	Carrying amount		Line item in statement of financial position	Change in value of hedged item ¹⁾	Change in value of hedging instrument ¹⁾
		Asset	Liability			
Forward exchange contracts						
EUR/JPY	12	2	–	Current and non-current derivative assets	(2)	2
EUR/USD	528	22	–	Current and non-current derivative assets	(47)	47
USD/BRL	191	1	(3)	Current and non-current derivative assets/liabilities	8	(8)
Others	93	2	–	Current and non-current derivative assets	(3)	3
Forward commodity contracts	4	0	–	Current derivative assets	0	0
Forward interest rate contracts	500	0	–	Non-current derivative assets	0	0
	1,328	27	(3)		(44)	44

1) The changes in value are changes in the hedged component in the period.

Forward Exchange and Forward Commodity Hedges 2018

€ million	Nominal amount	Carrying amount		Line item in statement of financial position	Change in value of hedged item ¹⁾	Change in value of hedging instrument ¹⁾
		Asset	Liability			
Forward exchange contracts						
EUR/JPY	27	–	(1)	Current and non-current derivative liabilities	2	(2)
EUR/USD	306	1	(13)	Current and non-current derivative assets/liabilities	25	(25)
USD/BRL	60	0	(5)	Current and non-current derivative assets/liabilities	4	(4)
Forward commodity contracts	5	–	(1)	Current derivative liabilities	1	(1)
	398	1	(20)		32	(32)

1) The changes in value are changes in the hedged component in the period.

Maturities and Average Prices 2017

€ million		2018		≥ 2019	
		Nominal amount	Average rate ¹⁾	Nominal amount	Average rate ¹⁾
Forward exchange contracts					
EUR/JPY	Euro	12	117	–	–
EUR/USD	Euro	373	1.16	155	1.23
USD/BRL	Euro	122	3.38	69	3.62
Others	Euro	75	–	18	–
Forward interest rate contracts	Euro	500	0.53	500	0.53
Forward commodity contracts	Euro	4	469.30	–	–
		1,086		742	

1) Average hedging rate corresponds to the fixed side of the interest rate swap for forward interest rate contracts and the fixed side of the contract for forward commodity contracts

Maturities and Average Prices 2018

€ million		2019		≥ 2020	
		Nominal amount	Average rate ¹⁾	Nominal amount	Average rate ¹⁾
Forward exchange contracts					
EUR/JPY	Euro	17	130	10	128
EUR/USD	Euro	269	1.21	37	1.21
USD/BRL	Euro	40	3.54	20	3.55
Forward commodity contracts	Euro	5	561.93	–	–
		331		67	

1) Average hedging rate corresponds to the fixed side of the interest rate swap for forward interest rate contracts and the fixed side of the contract for forward commodity contracts

As in the previous year, the hedged cash flows for the forward exchange hedges will be realized within the next three years. As in the previous year, the hedged cash flows of the forward commodity contracts will be realized within the next year.

Hedge Accounting Reconciliation Other Comprehensive Income 2017

€ million	Cash flow hedges			Total	Cost of hedging			Sum other comprehensive income
	Currency hedging contracts	Forward commodity contracts	Forward interest rate contracts		Forward-to-Forward	Spot-to-Spot	Total	
January 1	(14)	0	-	(14)	0	-	-	(14)
Changes other comprehensive income	29	-	0	29	(2)	(3)	(5)	24
Reclassification in profit or loss due to recognition of underlying transaction	4	0	-	4	-	-	-	4
December 31	19	0	0	19	(2)	(3)	(5)	14

Hedge Accounting Reconciliation Other Comprehensive Income 2018

€ million	Cash flow hedges			Total	Cost of hedging			Sum other comprehensive income
	Currency hedging contracts	Forward commodity contracts	Forward interest rate contracts		Forward-to-Forward	Spot-to-Spot	Total	
January 1	19	0	0	19	(2)	(3)	(5)	14
Adjustments according to IFRS 5	(7)	-	-	(7)	1	2	3	(4)
Changes other comprehensive income	(16)	0	-	(16)	0	(4)	(4)	(20)
Reclassification in profit or loss due to recognition of underlying transaction	(2)	-	0	(2)	-	-	-	(2)
December 31	(6)	0	0	(6)	(1)	(5)	(6)	(12)

The LANXESS Group expects that, of the unrealized losses on currency hedges recognized in other comprehensive income as of the reporting date, €10 million will be reclassified from equity to profit or loss in fiscal year 2019 and €2 million in fiscal year 2020 (previous year: unrealized gains of €12 million in fiscal year 2018 and €2 million in fiscal year 2019).

Information on *long-term embedded derivatives not designated as hedging instruments* and the maturity structure of derivative assets and liabilities is given in [Note \[36\]](#).

6 | Other Non-Current and Current Financial Assets

Other Financial Assets

€ million	Dec. 31, 2017		
	Non-current	Current	Total
Available-for-sale financial assets	1	1	2
Other financial receivables	19	6	25
	20	7	27

Other Financial Assets

€ million	Dec. 31, 2018		
	Non-current	Current	Total
Financial assets	-	542	542
Contract assets	17	44	61
Other financial receivables	8	12	20
	25	598	623

Financial assets essentially comprise invested cash funds from the sale of the investment in ARLANXEO and securities that can be sold at any time. The non-current contract assets relate to revenue measured at the average contract price for the manufacture of products with contractually defined minimum purchase requirements. Differences between average pricing and the invoice prices are shown as contract assets and reversed over the remaining term of the contract. The current contract assets relate to revenue recognized at the average contract price for the manufacture of customer-specific products with contractually defined minimum purchase requirements as of the production date that are not expected to be delivered to the customer until the next fiscal year. The other financial assets are reduced by expected credit losses in the amount of €2 million (previous year: €1 million).

Contract Assets

€ million	2018
January 1	56
Adjustments in accordance with IFRS 5	(4)
Cumulative catch-up adjustments to revenues of the reporting period	(3)
Cumulative catch-up adjustments to revenues of previous reporting periods	7
Additions	45
(Reversals of) Impairment losses	0
Reclassifications to trade receivables	(40)
Exchange differences	0
December 31	61

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

The additions or reclassifications to trade receivables mainly relate to the business model of manufacturing customer-specific products on the basis of long-term supply agreements with a contractually defined minimum purchase requirement. The additions comprise revenue recognized in the reporting period already as of the production date. When the customer-specific products manufactured in the previous year are delivered, the contract assets are reclassified as trade receivables. In addition, the reclassifications to trade receivables include the recognition of the values for the quantities delivered in the reporting period from the business model of manufacturing products on the basis of long-term supply agreements with a contractually defined minimum purchase requirement, which are included in the opening balance.

7 | Non-Current and Current Income Tax Receivables

The non-current income tax receivables of €14 million (previous year: €20 million) essentially comprise uncertain tax positions.

The current income tax receivables of €55 million (previous year: €47 million) mainly include tax prepayments and receivables relating to disputed tax issues where reimbursement is considered probable. The reduction due to the sale of the investment in ARLANXEO is essentially offset by new tax prepayments in Germany.

8 | Other Non-Current Assets

The other non-current assets amounting to €117 million (previous year: €113 million) mainly include receivables relating to pension obligations, periodic accruals and other reimbursement claims.

Other non-current assets are carried at amortized cost less any write-downs. No write-downs were made in 2017 or 2018.

9 | Inventories

The inventories of the LANXESS Group comprise:

Inventories

€ million	Dec. 31, 2017	Dec. 31, 2018
Raw materials and supplies	382	286
Work in process, finished goods and merchandise	1,298	1,061
	1,680	1,347

Inventories of €174 million (previous year: €258 million) are reflected at net realizable value. The decline in inventories as against the previous year essentially results from the sale of the investment in ARLANXEO.

Due to inflation adjustments in accordance with IAS 29, inventories increased by less than €1 million as of December 31, 2018.

The changes in write-downs of inventories were as follows:

Write-Downs of Inventories

€ million	2017	2018
January 1	(104)	(97)
Adjustments in accordance with IFRS 5	7	25
Additions charged as expenses	(28)	(41)
Reversals/utilization	26	20
Exchange differences	2	0
December 31	(97)	(93)

Prior-year figures restated

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

10 | Trade Receivables

All trade receivables – totaling €903 million (previous year: €1,316 million) – are due within one year. Of the trade receivables, €4 million (previous year: €3 million) pertained to investments accounted for using the equity method and €899 million (previous year: €1,313 million) pertained to other customers. The decline as against the previous year essentially results from the sale of the investment in ARLANXEO.

Necessary loss allowances of €15 million were recognized at the end of the reporting period (previous year: write-downs of €17 million). The underlying gross receivables amount to €15 million (previous year: €18 million).

The loss allowance for trade receivables and the maturity structure classes for the loss allowance in fiscal year 2018 are shown under “Credit risk management” in [Note \[36\]](#).

The changes in write-downs of trade receivables were as follows in the previous year:

Write-Downs of Trade Receivables

€ million	2017
January 1	(17)
Adjustments in accordance with IFRS 5	1
Additions charged as expenses	(6)
Reversals/utilization	4
Exchange differences	1
December 31	(17)

Prior-year figures restated

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

The maturity structure of past-due trade receivables was as follows in the previous year:

Maturity Structure of Past-Due Trade Receivables

€ million	Dec. 31, 2017
Carrying amount	1,316
of which neither impaired nor past due	1,165
of which unimpaired but past due by	
up to 30 days	128
between 31 and 60 days	15
between 61 and 90 days	3
more than 90 days	4

11 | Near-Cash Assets

Near-cash assets amount to €0 million. In the previous year, they included securities of €50 million that could be sold at any time.

12 | Other Current Assets

Other current assets totaling €197 million (previous year: €274 million) are stated at amortized cost less any write-downs. They principally comprise miscellaneous claims for tax refunds amounting to €138 million (previous year: €206 million), mainly pertaining to sales taxes, and other reimbursement claims from goods and service transactions totaling €39 million (previous year: €52 million). The decline as against the previous year essentially results from the sale of the investment in ARLANXEO. As of December 31, 2018, write-downs of €1 million were included (previous year: €1 million).

13 | Equity

Capital stock

The capital stock of LANXESS AG amounted to €91,522,936 as of December 31, 2018, and is composed of 91,522,936 no-par bearer shares. All shares carry the same rights and obligations. One vote is granted per share, and profit is distributed per share.

Authorized capital

Authorized capital was composed as follows as of December 31, 2018:

Pursuant to Section 4, Paragraph 3 of LANXESS AG's articles of association, the Annual Stockholders' Meeting on May 15, 2018, authorized the Board of Management until May 14, 2023, with the approval of the Supervisory Board, to increase the capital stock on one or more occasions by issuing new no-par bearer shares against cash or contributions in kind up to a total amount of €18,304,587 (Authorized Capital I). Furthermore, pursuant to Section 4, Paragraph 4 of LANXESS AG's articles of association, the Annual Stockholders' Meeting on May 26, 2017, authorized the Board of Management until May 25, 2022, with the approval of the Supervisory Board, to increase the company's capital stock on one or more occasions by issuing new bearer shares against cash or contributions in kind up to a total amount of €9,152,293 (Authorized Capital III). Stockholders are generally entitled to subscription rights when Authorized Capital I and III are utilized. However, these rights can be excluded in certain cases which are defined in Section 4, Paragraphs 3 and 4 of the articles of association of LANXESS AG. By way of self-commitment, the Board of Management undertakes to perform capital measures with stockholders' subscription rights disappplied up to a maximum total amount of 20% of the company's current capital stock. This

restriction applies when issuing new shares utilizing authorized capital, utilizing treasury shares or issuing bonds with warrants or conversion rights/obligations on the basis of which shares must be issued, with stockholders' subscription rights disappplied in each case. The Board of Management will be bound by this declaration until a future Annual Stockholders' Meeting again resolves to authorize the Board of Management to implement capital measures under exclusion of stockholders' subscription rights. Authorized Capital I and III have not yet been utilized.

Conditional capital

Conditional capital was composed as follows as of December 31, 2018:

The Annual Stockholders' Meeting of LANXESS AG on May 15, 2018, authorized the Board of Management until May 14, 2023, with the approval of the Supervisory Board, to issue – in one or more installments – warrant bonds and/or convertible bonds, profit-participation rights and/or income bonds or a combination of these instruments (collectively referred to as “bonds”) – as either registered or bearer bonds – with a total nominal value of up to €1,000,000,000, with or without limited maturity, and to grant option rights to, or impose exercise obligations on, the holders or creditors of warrant bonds, profit-participation rights with warrants or income bonds with warrants, and/or to grant conversion rights to, or impose conversion obligations on, the holders or creditors of convertible bonds, convertible profit-participation rights or convertible income bonds in respect of bearer shares of the company representing a total pro rata increase of up to €9,152,293 in the company's capital stock on the terms to be defined for these bonds. Pursuant to Section 4, Paragraph 5 of the articles of association, the capital stock of LANXESS AG is thus conditionally increased by up to €9,152,293 (conditional capital). The Board of Management is authorized, with the approval of the Supervisory Board, to exclude subscription rights in certain cases which are detailed in the authorization. The Board of Management will consider other capital measures with stockholders' subscription rights disappplied in its decision to disapply stockholders' subscription rights when issuing convertible bonds or bonds with warrants, profit participation rights or income bonds (or combinations of these instruments). By way of self-commitment, the Board of Management undertakes to perform capital measures with stockholders' subscription rights disappplied up to a maximum total amount of 20% of the company's current capital stock. This restriction applies when issuing new shares utilizing authorized capital, utilizing treasury shares or issuing

bonds with warrants or conversion rights/obligations on the basis of which shares must be issued, with stockholders' subscription rights disappplied in each case. The Board of Management will be bound by this declaration until a future Annual Stockholders' Meeting again resolves to authorize the Board of Management to implement capital measures under exclusion of stockholders' subscription rights. The authorization to issue bonds has not yet been utilized.

Share buyback and retirement

The Annual Stockholders' Meeting of LANXESS AG on May 20, 2016, authorized the Board of Management until May 19, 2021, to acquire shares in the company representing up to 10% of the capital stock and to utilize them for any purpose permitted by law. This authorization may also be utilized by subsidiaries of the company or by third parties on behalf of the company or its subsidiaries. At the discretion of the Board of Management, such shares may be acquired either on the market or via a public tender offer. The Board of Management is authorized to use them for any purpose permitted by law, especially the purposes specifically listed in the authorization. Treasury shares were not purchased on the basis of this authorization in fiscal year 2018. However, the Board of Management of the company resolved on January 10, 2019 to exercise its share buy-back authorization and to buy treasury shares at a purchase price of up to €200 million (not including incidental expenses) on the stock exchange. On the basis of the price level on January 9, 2019, this would be around 4.9% of the capital stock, corresponding to around 4.5 million treasury shares. According to the resolution by the Board of Management of the company, the share repurchase is to begin no sooner than January 14, 2019 and end no later than December 31, 2019. The shares are to be redeemed.

Capital reserves

The capital reserves of LANXESS AG are unchanged from the previous year at €1,225,652,280.

Other reserves

The €10 million increase in other reserves to €1,391 million is attributable to the increase in retained earnings from €1,222 million to €1,232 million.

Retained earnings comprise prior years' undistributed income of companies included in the consolidated financial statements. They also contain remeasurements of the net defined benefit liability from post-employment benefit plans and the related tax effects.

Other equity components

The other equity components mainly comprise exchange differences from the translation of operations outside the euro zone and remeasurements of derivatives for purposes of cash flow hedge accounting.

Capital management

The main purpose of capital management in the LANXESS Group is to maintain the long-term viability of the business operations and achieve an attractive return on capital compared with the chemical industry average. LANXESS's financial policy defines an additional condition for capital management, which is to maintain an investment-grade rating. To achieve this goal, the Group has to meet indicators set by the rating agencies. Most of these are derived from the statement of financial position, the income statement or the statement of cash flows. Details can be found in the section headed "[Value management and control system](#)" in the combined management report for fiscal year 2018. Capital management in the LANXESS Group entails decisions by the relevant internal bodies on the capital structure shown on the statement of financial position, the appropriateness of the company's equity, the use of the distributable profit, the amount of the dividend, the financing of capital expenditures, and thus on issuances or repayments of debt. The articles of association of LANXESS AG do not contain any specific capital requirements.

14 | Provisions for Pensions and Other Post-Employment Benefits

Most employees in the LANXESS Group are entitled to retirement benefits on the basis of contractual agreements or statutory regulations. These are provided through defined contribution or defined benefit plans.

Defined contribution plans

In the case of defined contribution plans, the company pays contributions into separate pension funds. These contributions are included in the functional cost items as expenses for the respective year, and thus in the operating result. Once the contributions have been paid, the company has no further payment obligations. Payments to defined contribution plans in fiscal year 2018 totaled €47 million (previous year: €45 million).

Multi-employer plans

The pension plan in Germany financed through Bayer-Pensionskasse is also accounted for in the consolidated financial statements as a defined contribution plan. The above amounts include contributions of €23 million (previous year: €26 million) to Bayer-Pensionskasse. Contributions of about the same amount are expected for fiscal year 2019.

Bayer-Pensionskasse is a legally independent private insurance company and is therefore subject to the German Insurance Supervision Act. Since the obligations of the participating entities are not confined to payment of the contributions for the respective fiscal year, Bayer-Pensionskasse constitutes a defined benefit multi-employer plan and therefore would generally have to be accounted for pro rata as a defined benefit plan.

Bayer-Pensionskasse is financed not on the principle of coverage for individual benefit entitlements, but on the actuarial equivalence principle, based on totals for the whole plan. This means that the sum of existing plan assets and the present value of future contributions must be at least equal to the present value of the future benefits payable under the plan. The LANXESS Group is therefore exposed to the actuarial risks of the other entities participating in Bayer-Pensionskasse. Thus no consistent or reliable basis exists for allocating the benefit obligation, plan assets and costs that would enable LANXESS to account for Bayer-Pensionskasse as a defined benefit plan in accordance with IAS 19. As contributions are based on future coverage of the total obligation, all participating entities pay contributions at the same rates based on the employee income levels on which social security contributions are payable. Bayer-Pensionskasse is therefore accounted for as a defined contribution plan and not as a defined benefit plan.

There are no minimum funding requirements, nor is there any information that could be used to estimate the future contributions on the basis of current under- or overfunding. The statutes do not provide for the sharing of any surplus or shortfall in the event that Bayer-Pensionskasse is wound up or LANXESS ceases to participate.

LANXESS's share of the total contributions to Bayer-Pensionskasse is 15% (previous year: 16%). Bayer-Pensionskasse has been closed to new members since January 1, 2005.

Defined benefit plans

The global post-employment benefit obligations are calculated at regular intervals – at least every three years – by an independent actuary using the projected unit credit method. Comprehensive actuarial valuations are generally undertaken annually for all major post-employment benefit plans.

Contractually based defined benefit pension plans exist primarily in Germany, the U.S. and Great Britain (previous year: Germany, the U.S., Great Britain, Canada and Brazil).

The defined benefit pension obligations in Germany mainly relate to lifelong benefits payable in the event of death or disability or when the employee reaches retirement age. Benefits are determined on the basis of the total annual pension increments earned during the period of employment and vary according to employees' individual salaries. Additional pension entitlements exist that are related to salary components set aside by employees and are payable when they reach retirement age. Alongside direct commitments, the pension adjustment obligation assumed by Bayer-Pensionskasse is accounted for in a separate defined benefit plan in accordance with Section 16 of the German Occupational Pensions Improvement Act (BetrAVG). A new pension plan was agreed for employees joining from fiscal year 2017 in the form of a congruently defined benefit scheme which is funded on the basis of life insurance policies. The employer's obligation is fulfilled by the payment of the contribution to the covering life insurance policies. The covering life insurance policies are carried as plan assets via a CTA.

In the U.S. and Great Britain (previous year: the U.S., Great Britain and Canada), the defined benefit obligations comprise, in particular, lifelong pension benefits, which are payable in the event of disability or death or when the employee reaches retirement age. The level of these benefits is determined from the total annual pension increments earned during the period of employment, depending on the employee's individual salary and the actual date of retirement. The existing defined benefit pension plans are closed to new members. In some of the closed pension plans, no new pension entitlements are accrued and the employees are transferred to a defined contribution plan.

In Brazil, the previous year's key defined benefit obligations comprise lifelong benefits, principally in the event of death or disability or when the employee reaches retirement age. The benefits are calculated according to the total annual pension increments earned during the period of employment and also depend on individual salary, the number of years for which statutory social insurance contributions have been paid, and comparable statutory pension benefits. The principal defined benefit pension plans are closed to new members.

Only limited defined benefit pension obligations exist on the basis of statutory regulations. These principally comprise obligations to make a lump-sum payment if employment is terminated. The amount of this payment mainly depends on years of service and final salary.

The other post-employment benefit obligations primarily relate to the reimbursement of retirees' healthcare costs in North and South America. The other post-employment benefit obligations in Germany comprise other long-term benefits payable to employees and benefits payable upon termination of employment. These are mainly early-retirement benefits and collectively agreed salary components granted in the form of pension benefits. They are included in pension provisions as they are by nature pension entitlements.

Financing of the defined benefit pension obligations is achieved both internally through provisions and externally through legally independent pension funds. The pension obligations in Germany are partly covered on a voluntary basis via LANXESS Pension Trust e.V., Leverkusen, Germany. The allocation of funds to LANXESS Pension Trust e.V. is dependent on future decisions by the company. In the U.S. and Great Britain (previous year: the U.S., Great Britain, Canada and Brazil), it is mandatory to primarily finance pension obligations through pension funds. Allocations to pension funds in the U.S. and Great Britain (previous year: the U.S., Great Britain, Canada and Brazil) are determined by the regulatory environments and the need to comply with funding regulations. Contributions are paid mainly by the employer. The investment strategy is determined principally by the LANXESS Corporate Pension Committee and is designed to protect the capital, optimally manage risks, take into account changes in pension obligations and ensure the timely availability of pension assets. At the regional level, the strategy is generally directly coordinated and monitored by representatives of LANXESS via the relevant committees of the pension funds or of LANXESS Pension Trust e.V., taking regulatory requirements into account. In Brazil, the investment of plan assets forms an integral part of the pension fund's overall investment strategy and is basically managed and supervised by the pension fund. On the basis of local regulations, the pension assets in Great Britain are managed by external trustees in close coordination with LANXESS.

Minimum funding requirements for the previous year may have to be met for defined benefit obligations in both Brazil and Canada. These depend on the local regulatory framework and are reflected in additional pension provisions. Funding surpluses from defined benefit plans are recognized as receivables relating to pension obligations to the extent that they can be used to reduce future contributions, taking into account the **asset ceiling**. Defined benefit pension plans with asset ceilings exist primarily in the U.S. and Great Britain. The respective calculations are based on actuarial valuations.

In the reporting year, total expenses of €69 million (previous year: €69 million) for defined benefit plans were recognized in profit or loss and are split between the operating result and the financial result as follows:

Expenses for Defined Benefit Plans

€ million	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Operating result				
Current service cost	36	38	6	2
Past service cost	1	2	–	–
Gains/losses from settlements	–	–	–	–
Administration expenses/taxes	2	2	0	0
Actuarial gains/losses from changes in financial assumptions	–	–	0	0
Financial result				
Net interest	21	21	3	4
Amounts recognized in profit or loss	60	63	9	6

Prior-year figures restated

Administration expenses in the operating result contain expenses from the investment of assets that are not directly attributable to the earning of income on plan assets. The costs of managing the plan assets that are directly attributable to the earning of income on plan assets are recognized in other comprehensive income.

The actuarial gains and losses relate to other non-current employee benefits or termination benefits that are included in pension provisions because they are by nature retirement benefits.

The net interest is the balance of the interest expense from compounding the defined benefit obligation, the interest expense from changes in the effects of the asset ceiling and minimum funding requirements, and interest income from plan assets.

The table shows the amounts recognized in other comprehensive income rather than profit or loss in the reporting year:

Amounts Recognized in Other Comprehensive Income

€ million	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Return on plan assets excluding amounts included in interest	23	(56)	2	(2)
Actuarial gains/losses from changes in demographic assumptions	2	(2)	1	0
Actuarial gains/losses from changes in financial assumptions	(37)	29	(4)	5
Actuarial gains/losses from experience adjustments	(19)	2	0	2
Changes in effects of the asset ceiling	(3)	(1)	(2)	1
Changes in effects of minimum funding requirements	(11)	–	–	–
Amounts recognized in other comprehensive income	(45)	(28)	(3)	6

The change in the net defined benefit liability for post-employment benefit plans is shown in the following table:

Changes in Net Defined Benefit Liability

€ million	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Net defined benefit liability, January 1	1,129	1,256	120	177
Adjustments in accordance with IFRS 5	14	(208)	3	(39)
Amounts recognized in profit or loss	60	63	9	6
Amounts recognized in other comprehensive income	45	28	3	(6)
Employer contributions	(25)	(216)	0	(1)
Benefits paid	(32)	(35)	(23)	(20)
Business combinations	76	–	78	–
Other addition	1	0	–	–
Exchange differences	(12)	2	(13)	1
Net defined benefit liability, December 31	1,256	890	177	118
Amounts recognized in the statement of financial position				
Receivables from pension obligations	(57)	(75)	–	–
Provisions for pensions and other post-employment benefits	1,313	965	177	118
Net defined benefit liability, December 31	1,256	890	177	118

Prior-year figures restated

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

The expected cash outflows for employer contributions and benefit payments in fiscal year 2019 are €16 million and €56 million, respectively, based on year-end 2018 exchange rates. In the previous year, the expected cash outflows for employer contributions and benefit payments in fiscal year 2018 were €26 million and €62 million, respectively, based on exchange rates at year end 2017.

The components of the reconciliation of the net recognized liability are explained in the following tables, which show the development of the defined benefit obligation, the external plan assets and the effects of the asset ceiling and minimum funding requirements and explain the major changes.

The defined benefit obligation developed as follows:

Changes in Defined Benefit Obligation

€ million	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Defined benefit obligation				
Defined benefit obligation, January 1	2,422	3,104	127	192
Adjustments in accordance with IFRS 5	66	(941)	3	(39)
Current service cost	36	38	6	2
Interest expense	44	49	4	5
Actuarial gains/losses from changes in demographic assumptions	(2)	2	(1)	0
Actuarial gains/losses from changes in financial assumptions	37	(29)	4	(5)
Actuarial gains/losses from experience adjustments	19	(2)	0	(2)
Past service cost	1	2	–	0
Employee contributions	2	0	0	0
Benefits paid	(116)	(67)	(24)	(21)
Business combinations	724	–	87	–
Other additions	1	0	–	–
Administration expenses/taxes	0	0	0	0
Exchange differences	(130)	6	(14)	3
Defined benefit obligation, December 31	3,104	2,162	192	135

Prior-year figures restated

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

Of the defined benefit obligation for pensions, Germany accounts for 71% (previous year: 50%), Great Britain for 12% (previous year: 10%), the U.S. for 11% (previous year: 8%), Canada for 1% (previous year: 16%) and Brazil for 1% (previous year: 11%).

The other post-employment benefit obligations comprise €98 million (previous year: €142 million) for the reimbursement of health care costs and €37 million (previous year: €50 million) for miscellaneous other benefit commitments.

Actuarial gains and losses of €13 million from changes in demographic assumptions in the reporting year essentially arose in Germany as a result of the application of the newly published and adopted Heubeck 2018 G mortality tables. This was offset by the reduction in defined benefit obligations due to the application of the newly published and adopted CMI 2017 mortality improvement tables in Great Britain, which assume lower future mortality improvement than in 2017. Furthermore, actuarial losses arose from changes in the estimated conversion factors for the Great Lakes Plan.

In the previous year, actuarial gains and losses from changes in demographic assumptions in the reporting year mainly resulted in the U.S. due to the application of the newly published and adopted MP2017 mortality improvement tables, which assume lower future mortality improvement than in 2016. More up-to-date mortality tables were also used in Switzerland.

Remeasurements of the defined benefit liability due to changes in actuarial gains and losses resulting from changes in financial assumptions are mainly attributable to changes in the discount rates for defined benefit obligations in the main countries of relevance for LANXESS.

In the reporting year, the past service cost for pension obligations essentially relates to effects in Great Britain arising from the Barber judgment on minimum pension benefits guaranteed by law. In the previous year, the past service cost for pension obligations included early retirement agreements, improvements to existing benefit entitlements for employees taking early retirement and severance agreements.

The effects shown under business combinations in the previous year result from the acquisition of the U.S. chemical group Chemtura on April 21, 2017, and include benefit obligations for employees in Germany, Canada, Italy, Japan, Mexico, Great Britain, the U.S., Switzerland and the Republic of Korea.

The exchange differences pertaining to defined benefit obligations mainly resulted from changes in the exchange rates judgment for the U.S. dollar and the British pound (previous year: the U.S. dollar, the British pound, the Canadian dollar and the Brazilian real).

The change in external plan assets is shown in the following table:

Changes in External Plan Assets

€ million	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Plan assets at fair value				
Plan assets, January 1	1,304	1,874	7	29
Adjustments in accordance with IFRS 5	52	(754)	–	–
Interest income	23	28	1	1
Return on plan assets excluding amounts included in interest	23	(56)	2	(2)
Employer contributions	25	216	0	1
Employee contributions	2	0	0	0
Benefits paid	(84)	(32)	(1)	(1)
Business combinations	650	–	23	–
Costs of managing plan assets/taxes	(2)	(2)	0	0
Exchange differences	(119)	4	(3)	2
Plan assets, December 31	1,874	1,278	29	30

Prior-year figures restated

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

Of plan assets, Germany accounts for 51% (previous year: 24%), Great Britain for 27% (previous year: 20%), the U.S. for 16% (previous year: 11%), Canada for 2% (previous year: 25%) and Brazil for 1% (previous year: 15%).

Employer contributions are used both for external funding of pension obligations where LANXESS is eligible for reimbursements of pension payments and for external funding of pension obligations where subsequent pension payments will be made directly out of external plan assets.

The latter type of obligations totaled €16 million (previous year: €25 million). External funding where LANXESS can assert reimbursement claims mainly pertains to LANXESS Pension Trust e.V. Additional funding of €200 million was provided to LANXESS Pension Trust e.V. in the reporting year. No payments were made in the previous year.

The effects shown under business combinations in the previous year result from the acquisition of the U.S. chemical group Chemtura on April 21, 2017, and include benefit obligations for employees in Germany, Canada, Italy, Japan, Mexico, Great Britain, the U.S., Switzerland and the Republic of Korea.

The exchange differences pertaining to plan assets mainly resulted from changes in the exchange rates judgment for the U.S. dollar and the British pound (previous year: the U.S. dollar, the British pound, the Canadian dollar and the Brazilian real).

Changes in the effects of the asset ceiling and minimum funding requirements are shown in the following table:

Changes in Effects of Asset Ceilings and Minimum Funding Requirements for Defined Benefit Plans

€ million	Effects of the asset ceiling		Minimum funding requirements	
	2017	2018	2017	2018
January 1	0	19	11	21
Adjustments in accordance with IFRS 5	–	–	–	(21)
Additions from business combinations	16	–	–	–
Interest expense	0	0	0	–
Additions (deductions)	5	–	11	–
Exchange differences	(2)	0	(1)	–
December 31	19	19	21	0

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

Changes in the effects of the asset ceiling mainly relate to the British defined benefit pension plans and the North American defined benefit obligations for other post-employment benefits. As of December 31, 2018, asset ceilings amounted to €6 million (previous year: €5 million) for defined benefit pension plans and €13 million (previous year: €14 million) for other post-employment benefits.

In the previous year, changes in minimum funding requirements resulted from Canadian defined benefit pension plans.

The fair value of plan assets comprises:

Breakdown of Plan Assets as of December 31

€ million	2017	2018
Cash and cash equivalents	10	224
of which quoted in an active market	10	224
Equity instruments	376	138
of which quoted in an active market	372	138
Government bonds	750	391
of which quoted in an active market	750	391
Corporate bonds	536	446
of which quoted in an active market	514	446
Investment funds	69	30
of which quoted in an active market	30	21
Real estate	33	5
of which quoted in an active market	12	5
Insurance contracts	81	56
of which quoted in an active market	6	–
Other	48	18
of which quoted in an active market	48	18
	1,903	1,308

The plan assets do not include any real estate used by the company. Financial instruments owned by the company account for approximately 3% (previous year: 2%) of the plan assets. Index products could conceivably include LANXESS securities.

The following weighted discount rates were used to calculate the defined benefit obligation and determine the pension expense:

Discount Rates as of December 31

%	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Discount rate	3.15	2.41	3.22	3.88
Germany	2.00	2.00	0.22	0.36
Canada	3.00	3.50	3.25	3.50
Brazil	9.50	9.25	9.50	9.25
U.S.	3.75	4.25	3.50	4.25
Great Britain	2.50	2.75	–	–

The following weighted measurement assumptions were used for the other parameters:

Valuation Assumptions as of December 31

%	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Expected salary increases	2.6	2.3	2.9	2.6
Expected benefit increases	1.8	1.7	–	–
Expected increases in medical costs	–	–	6.1	7.0
Expected long-term increases in medical costs	–	–	4.7	5.2

The assumptions are weighted on the basis of the defined benefit obligation at year end. The discount rates used for Germany, the U.S., Great Britain and Canada are derived from high-quality fixed-interest corporate bonds with the same maturities. In Brazil, however, there is no liquid market for such bonds so the discount rate is based on those for government bonds with the same maturities. This method of deriving the discount rates is unchanged from the previous year in the principal countries.

The long-term cost increase for medical care is expected to take place within 9 years (previous year: 10 years).

The Heubeck mortality tables 2018 G (previous year: Heubeck mortality tables 2005 G) form the biometric basis for the computation of pension obligations in Germany. Current national biometric assumptions are used to compute benefit obligations at other Group companies.

A change in the principal valuation parameters would result in the following percentage changes in the defined benefit obligation:

Sensitivities of Defined Benefit Obligations as of December 31

%	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Discount rate				
+0.5%-pt.	(7.6)	(8.1)	(4.1)	(3.7)
–0.5%-pt.	8.7	9.2	4.5	4.0
Expected salary increases				
+0.25%-pt.	0.4	0.4	0.2	0.3
–0.25%-pt.	(0.3)	(0.4)	(0.2)	(0.2)
Expected benefit increases				
+0.25%-pt.	3.6	4.3	–	–
–0.25%-pt.	(3.4)	(4.0)	–	–
Mortality				
–10%	2.1	2.9	0.6	1.8
Expected increases in medical costs				
+1%-pt.	–	–	4.4	3.8
–1%-pt.	–	–	(4.0)	(3.4)

The sensitivity of the mortality rates was calculated for the countries with significant pension obligations. A reduction in mortality increases the individual life expectancy of insureds. A 10% reduction would increase the average life expectancy of employees of retirement age in the countries of importance for LANXESS by about one year.

Sensitivity is calculated by altering one parameter while leaving all the others unchanged. The method used is the same as for the actuarial valuation of benefit obligations. However, sensitivity calculations depend on interest rate effects and the absolute change in the parameter. Moreover, it is unlikely in practice that only one parameter would change, so the change in a parameter could correlate with other assumptions. Where the expected development of the parameter used in the sensitivity calculation was based on a different variation in the parameter, the stated change in the benefit obligation was approximated using the straight-line method.

The weighted average duration of defined benefit pension obligations was 18 years (previous year: 17 years). This figure was based on weighted average durations of 19 years (previous year: 20 years) for Germany, 10 years (previous year: 13 years) for Canada, 9 years (previous year: 10 years) for Brazil, 9 years (previous year: 10 years) for the U.S. and 18 years (previous year: 20 years) for Great Britain. The weighted average duration of the defined benefit obligations for other post-employment benefits was 9 years (previous year: 10 years).

The funded status is reported in the following table as the underfunding or overfunding of the defined benefit obligation after deduction of plan assets, without taking into account changes in the effects of the asset ceiling or minimum funding requirements:

Funded Status as of December 31

€ million	Pension plans		Other post-employment benefit plans	
	2017	2018	2017	2018
Funded status				
Defined benefit obligation for funded plans	2,510	1,628	19	22
External plan assets	(1,874)	(1,278)	(29)	(30)
Underfunding of funded plans	636	350	(10)	(8)
Defined benefit obligation for unfunded plans	594	534	173	113
Funded status, December 31	1,230	884	163	105

15 | Other Non-Current and Current Provisions

As of December 31, 2018, the LANXESS Group had other current provisions of €465 million (previous year: €525 million) and other non-current provisions of €337 million (previous year: €460 million). The maturity structure of other provisions is shown in the following table:

Other Provisions

€ million	Dec. 31, 2017				Dec. 31, 2018			
	Up to 1 year	1–5 years	Over 5 years	Total	Up to 1 year	1–5 years	Over 5 years	Total
Personnel	264	76	41	381	188	29	34	251
Environmental protection	32	64	131	227	31	49	118	198
Trade-related commitments	80	6	–	86	86	1	0	87
Restructuring	37	36	7	80	23	24	5	52
Miscellaneous	112	40	59	211	137	24	53	214
	525	222	238	985	465	127	210	802

The total of other provisions decreased from €985 million to €802 million in the reporting year. The changes in other provisions were as follows:

Changes in Other Provisions in 2018

€ million	Jan. 1, 2018	Adjustments in accordance with IFRS 5	Acquisitions	Additions	Interest effect	Utilization	Reversals	Exchange differences	Dec. 31, 2018
Personnel	381	(80)	0	167	0	(212)	(3)	(2)	251
Environmental protection	227	(18)	0	6	4	(12)	(7)	(2)	198
Trade-related commitments	86	(15)	1	76	–	(53)	(8)	0	87
Restructuring	80	(2)	–	1	0	(17)	(10)	0	52
Miscellaneous	211	(19)	–	78	1	(35)	(24)	2	214
	985	(134)	1	328	5	(329)	(52)	(2)	802

Personnel-related provisions

Personnel-related provisions include particularly provisions established for annual performance-related compensation and multi-year compensation programs.

Multi-year compensation programs

Stock-based compensation

LANXESS AG offers a stock-based compensation program to members of the Management Board and top-level managers. The program provides for cash settlement. The two present Long-Term Stock Performance Plans (LTSP) were introduced in fiscal years 2010 and 2014. Under the LTSP 2010–2013 program introduced in fiscal year 2010, rights were granted for the years 2010–2013. Awards are based on the performance of LANXESS stock relative to the Dow Jones STOXX 600 ChemicalsSM Index. The LTSP 2014–2017 program introduced in fiscal year 2014 is largely identical to the LTSP 2010–2013. The main difference is that awards are based on the performance of LANXESS stock relative to the MSCI World Chemicals Index. The total term of all tranches in both programs is generally seven years. In fiscal year 2016, the exercise periods for the 2012 and 2013 tranches of the LTSP 2010–2013 compensation program were extended by two years each, so the full term of these two tranches is now nine years. The base price of the stock and the benchmark index for the LTSP programs are calculated using a volume-weighted average of the closing prices on the first ten trading days in January of the year of issue of the tranche. The date of issue of the rights granted and still outstanding and the rights from the outstanding tranches is February 1 each year. Participation in the programs is conditional upon each manager making a personal investment in

LANXESS stock, depending on his/her base salary. If LANXESS stock outperforms the index, a payment of at least €0.75 per right is made. For each percentage point by which the stock outperforms the index, €0.125 is paid in addition. The maximum possible payment per right, however, is €2.00.

LTSP 2018-2021 was introduced in fiscal year 2018. The tranche has a total term of four years and exclusively comprises the vesting period. The issue date for the rights granted and still outstanding is January 1 of each year. For each year during the term of the LTSP plan, the basic price of the company's stock is calculated from the average closing prices for the stock in Xetra trading on the Frankfurt Stock Exchange. To calculate the average, for each tranche year the closing prices of the last ten trading days in the calendar month of December of the previous year and the closing prices for the first ten trading days of the calendar month of January of the current tranche year are calculated. The value of a stock performance right is dependent on the average performance of LANXESS stock relative to the MSCI World Chemicals Index during the vesting period. The performance relative to the index is calculated individually for each of the four years of the vesting period. The values for the four fiscal years falling in the respective tranche are then added together and averaged. Rights are exercised automatically at the end of the vesting period. If the stock outperforms the index by 85 percentage points, at least €0.50 is paid out. An additional €0.03 is paid out for each percent up to a performance of 100 percentage points. If the stock outperforms the index by between 100 and 115 percentage points, a further €0.06 will be paid per percentage point, resulting in a maximum possible payment of €2.00.

Obligations arising from the stock-based compensation are valued on the basis of the following principal parameters:

Principal Parameters as of December 31

%	2017	2018
Expected share price volatility	27.0	27.0
Expected dividend payment	2.0	2.0
Expected volatility of Dow Jones STOXX 600 Chemicals SM	18.0	18.0
Correlation between LANXESS stock and Dow Jones STOXX 600 Chemicals SM	67.0	72.0
Expected volatility of MSCI World Chemicals Index	13.0	13.0
Correlation between LANXESS stock and MSCI World Chemicals Index	60.0	63.0

The relevant risk-free interest rate in the reporting year was minus 0.44% (previous year: minus 0.34%).

The expected volatilities are based on the historical volatility of LANXESS stock and the Dow Jones STOXX 600 ChemicalsSM Index or the MSCI World Chemicals Index in the past four years.

The following table provides information on the tranches outstanding:

Long Term Stock Performance Plan

	LTSP 2010–2013			LTSP 2014–2017				LTSP 2018–2021
	Tranche 2011	Tranche 2012	Tranche 2013	Tranche 2014	Tranche 2015	Tranche 2016	Tranche 2017	Tranche 2018
Duration	7 years	9 years	9 years	7 years	7 years	7 years	7 years	4 years
Vesting period	4 years	4 years	4 years	4 years	4 years	4 years	4 years	4 years
Lock-up period for personal investment shares	Jan. 31, 2017	Jan. 31, 2017	Jan. 31, 2017	Jan. 31, 2018	Jan. 31, 2019	Jan. 31, 2020	Jan. 31, 2021	Dec. 31, 2021
Initial LANXESS share price	€55.60	€44.54	€63.25	€47.41	€35.04	€38.39	€64.84	€66.91
Initial Dow Jones STOXX 600 Chemicals SM price	564.17 points	533.45 points	665.98 points	–	–	–	–	–
Initial MSCI World Chemicals Index price	–	–	–	238.07 points	254.06 points	233.45 points	276.04 points	337.09 points
Fair value per right as of December 31, 2017	€0.00	€0.35	€0.21	€1.49	€1.89	€1.48	€0.67	€0.00
Fair value per right as of December 31, 2018	€0.00	€0.03	€0.02	€0.00	€1.62	€0.86	€0.22	€0.73
Change in number of outstanding rights								
Outstanding rights as of January 1, 2018	5,493,711	7,914,725	8,718,804	8,921,208	9,706,090	10,837,575	11,468,139	–
Adjustments in accordance with IFRS 5	424,333	526,407	692,854	850,285	928,401	993,181	1,054,943	–
Rights granted	–	–	–	–	–	–	–	11,693,381
Rights exercised	–	–	–	8,051,632	–	–	–	–
Rights compensated	–	163,984	160,576	0	181,479	114,582	62,692	113,952
Rights forfeited	5,069,378	29,587	49,566	19,291	46,743	77,818	91,509	43,294
Outstanding rights as of December 31, 2018	0	7,194,747	7,815,808	0	8,549,467	9,651,994	10,258,995	11,536,135

LANXESS shares were trading at €40.20 at year end 2018. The Dow Jones STOXX 600 ChemicalsSM benchmark index stood at 801.04 points, while the MSCI World Chemicals Index was 278.72 points.

Due to the performance of the LANXESS share relative to the benchmark and to the granting, settlement and forfeiture of rights, net expense in fiscal year 2018 was €4 million (previous year: €11 million). A provision of €23 million existed as of December 31, 2018 (previous year: €40 million). In the current fiscal year, as in the prior year, the rights exercisable as of the closing date had no intrinsic value.

Environmental provisions

The LANXESS Group's activities are subject to extensive legal requirements in the jurisdictions in which it does business. Compliance with environmental laws may require LANXESS to remove or mitigate the effects of the release or disposal of chemical substances at various sites. Under some of these laws, a current or previous site owner or plant operator may be held liable for the costs of removing hazardous substances from the soil or groundwater on its property or neighboring areas, or rendering them harmless, without regard to whether the owner or operator knew of or caused the presence of the contaminants, and often regardless of whether the practices that resulted in the contamination were legal at the time they occurred. As many of LANXESS's production sites have a long history of industrial use, it is not always possible to accurately predict the effects such situations may have on the LANXESS Group in the future.

Since LANXESS is a chemical company, the possibility therefore cannot be excluded that soil or groundwater contamination may have occurred at its locations in the past. Claims in this regard could be brought by government agencies, private organizations or individuals. Such claims would then relate to the remediation of sites or areas of land owned by the LANXESS Group where products were manufactured by third parties under contract manufacturing agreements or where waste from production facilities operated by the LANXESS Group was treated, stored or disposed of.

Potential liabilities exist with respect to various sites under legislation such as the U.S. environment law commonly known as "Superfund". At locations in the U.S., numerous companies, including LANXESS, have been notified that the U.S. authorities or private individuals consider such companies to be potentially responsible parties under Superfund or related laws. At some sites, LANXESS may be the sole responsible party. Remediation measures have already been initiated at most of the sites concerned.

The existing provisions for environmental remediation costs relate primarily to the rehabilitation of contaminated sites,

re-cultivation of landfills, and redevelopment and water protection measures. The provisions for environmental remediation costs are stated at the present value of the expected commitments where environmental assessments or clean-ups are probable, the costs can be reasonably estimated and no future economic benefit is expected to arise from these measures. Costs are estimated based on significant factors such as previous experience in similar cases, environmental assessments, current cost levels and new circumstances affecting costs, our understanding of current environmental laws and regulations, the number of other potentially responsible parties at each site and the identity and financial position of such parties in light of the joint and several nature of the liability, and the remediation methods likely to be employed.

It is difficult to estimate the future costs of environmental protection and remediation because of many uncertainties concerning the legal requirements and the information available about conditions in the various countries and at specific sites. Subject to these factors, but taking into consideration experience gained to date with matters of a similar nature, we believe our provisions to be adequate based upon currently available information. However, the possibility that additional costs could be incurred beyond the amounts accrued cannot be excluded. LANXESS nevertheless estimates that such additional costs, should they occur, would not materially impact the Group's earnings, asset and financial position.

Provisions for trade-related commitments

The provisions essentially relate to energy and waste disposal services not yet invoiced and outstanding invoices for performance completed to date. They also comprise provisions for impending losses and onerous contracts.

Provisions for restructuring

Provisions for restructuring totaled €52 million (previous year: €80 million) on December 31, 2018, comprising €12 million (previous year: €23 million) for human resources measures, €19 million (previous year: €23 million) for environmental protection measures and €21 million (previous year: €34 million) for demolitions necessary for fulfilling environmental obligations and other expenses.

Miscellaneous provisions

The miscellaneous provisions principally comprise provisions for onerous contracts and for other obligations.

16 | Other Non-Current and Current Financial Liabilities

The following tables show the structure and maturities of other financial liabilities:

Other Financial Liabilities as of December 31, 2017

€ million	Current			Non-current			Total
	2018	2019	2020	2021	2022	> 2022	
Bonds	500	–	–	497	596	1,081	2,174
Liabilities to banks	89	–	–	–	–	–	0
Liabilities under finance leases	9	8	7	6	6	25	52
Other primary financial liabilities	35	0	0	0	0	16	16
	633	8	7	503	602	1,122	2,242

Other Financial Liabilities as of December 31, 2018

€ million	Current			Non-current			Total
	2019	2020	2021	2022	2023	> 2023	
Bonds	–	–	497	597	–	1,575	2,669
Liabilities to banks	29	–	–	–	–	–	0
Liabilities under finance leases	5	3	3	2	2	2	12
Other primary financial liabilities	25	0	0	0	0	5	5
	59	3	500	599	2	1,582	2,686

In the LANXESS Group, the following bonds were outstanding on December 31, 2018:

Bonds

Issuance	Nominal amount € million	Carrying amount € million	Interest rate %	Maturity
April 2012	100	100	3.500	April 2022
April 2012	100	99	3.950	April 2027
November 2012	500	497	2.625	November 2022
October 2016	500	497	0.250	October 2021
October 2016	500	494	1.000	October 2026
December 2016	500	490	4.500	December 2076
May 2018	500	492	1.125	May 2025

The weighted average interest rate for the LANXESS Group's financial liabilities denominated in euros and other currencies at year end was 2.0% (previous year: 2.7%).

Liabilities under finance leases are recognized if the leased assets are capitalized under property, plant and equipment as the economic property of the Group (finance leases). Lease payments totaling €21 million (previous year: €79 million), including €4 million (previous year: €18 million) in interest, are to be made to the

respective lessors in future years. The decline in liabilities under finance leases essentially results from the sale of the investment in ARLANXEO.

Other primary financial liabilities include accrued interest of €25 million (previous year: €35 million) on financial liabilities. €25 million of this (previous year: €23 million) relates to the bonds.

Information on the fair values of financial liabilities and the contractually agreed payments, especially interest payments, is given in [Note \[36\]](#).

17 | Non-Current and Current Income Tax Liabilities

The non-current and current income tax liabilities comprised:

Income Tax Liabilities

€ million	Dec. 31, 2017		Total
	Non-current	Current	
Provisions	134	51	185
Payables	–	10	10
	134	61	195

Prior-year figures restated

Income Tax Liabilities

€ million	Dec. 31, 2018		Total
	Non-current	Current	
Provisions	117	41	158
Payables	–	3	3
	117	44	161

The reduction in income tax provisions essentially results from the sale of the investment in ARLANXEO.

In connection with the purchase price allocation for the acquisition of the U.S. group Chemtura, non-current income tax receivables were increased by €15 million as of December 31, 2017, on the basis of new information.

18 | Other Non-Current and Current Liabilities

At year end the other non-current liabilities comprised:

Other Non-Current Liabilities

€ million	Dec. 31, 2017	Dec. 31, 2018
Asset subsidies granted by third parties	68	42
Contract liabilities	–	14
Social security liabilities	4	3
Miscellaneous liabilities	27	21
	99	80

The asset subsidies granted by third parties include government grants that are contingent upon the maintenance of employment or the use of assets for the company's own production purposes over defined periods of time.

Other Current Liabilities

€ million	Dec. 31, 2017	Dec. 31, 2018
Other tax liabilities	70	45
Contract liabilities	–	25
Payroll liabilities	24	14
Social security liabilities	23	12
Miscellaneous liabilities	62	35
	179	131

Other tax liabilities include not only Group companies' own tax liabilities, but also taxes withheld for payment to the authorities on behalf of third parties.

Contract liabilities are recognized in accordance with IFRS 15 for advance consideration received for which performance has not yet been rendered.

Social security liabilities include, in particular, social insurance contributions that had not been paid by the closing date.

The miscellaneous liabilities principally comprise accruals for outstanding invoices relating to the reporting period. The liabilities to Currenta GmbH & Co. OHG, Leverkusen, Germany, were less than €1 million as of December 31, 2018, as in the previous year.

Contract Liabilities

€ million	2018
January 1	40
Adjustments in accordance with IFRS 5	(10)
Cumulative catch-up adjustments to revenues of the reporting period	9
Cumulative catch-up adjustments to revenues of previous reporting periods	(4)
Additions	32
Revenue recognized that was included in the beginning balance	(28)
Exchange differences	0
December 31	39

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

The additions mainly relate to advance payments from customers for outstanding performance obligations. The revenue recognized from the opening balance mainly relates to prior-year payments from customers and the recognition of the values for the quantities delivered in the reporting period from the business model of manufacturing products on the basis of long-term supply agreements with a contractually defined minimum purchase requirement, which are included in the opening balance.

19 | Trade Payables

Trade accounts are payable mainly to third parties. As in the previous year, the entire amount totaling €795 million (previous year: €1,048 million) is due within one year.

Trade payables of €117 million (previous year: €108 million) relate to Currenta GmbH & Co. OHG, Leverkusen, Germany, which is accounted for using the equity method, and its affiliated companies, while trade payables of €678 million (previous year: €940 million) relate to other suppliers. The year-on-year decline mainly results from the sale of the investment in ARLANXEO.

20 | Further Information on Liabilities

€1,587 million of total liabilities (previous year: €1,132 million) have maturities of more than five years.

NOTES TO THE INCOME STATEMENT

21 | Sales

Sales, which amounted to €7,197 million (previous year: €6,530 million), mainly comprise sales of internally generated chemical products less discounts and rebates. The services relate to sales- and product-related services, tolling agreements and other long-term services. A breakdown of sales and the change in sales by segment and region is given in the segment information (see Note [38]).

Type of Revenues

€ million	2018
Sales of goods	7,129
Services	68
	7,197

Revenue Recognition

€ million	2018
Point in time	6,890
Over time	307
	7,197

The sales recognized over time relate to the business model of manufacturing customer-specific products on the basis of long-term sales contracts with contractually defined minimum purchase requirements of €239 million and to services rendered over time of €68 million.

Under the business models of manufacturing products or customer-specific products on the basis of long-term sales contracts with contractually defined minimum purchase requirements, there were unfulfilled performance obligations totaling €1,907 million as of December 31, 2018. The associated sales are expected to be as follows:

Maturity Structure of Revenues

€ million	2018
Up to 1 year	618
1 to 2 years	360
2 to 3 years	260
3 to 4 years	185
4 to 5 years	101
More than 5 years	383
	1,907

22 | Cost of Sales

Cost of Sales

€ million	2017	2018
Expenses for raw materials and merchandise	2,756	3,139
Direct manufacturing and other production costs	2,040	2,224
	4,796	5,363

Prior-year figures restated

The manufacturing costs include, among other costs, those for personnel, depreciation, amortization, write-downs, energy, and goods and services procured. The other production costs mainly comprise inventory valuation effects and inventory discrepancies.

23 | Selling Expenses

Selling Expenses

€ million	2017	2018
Marketing costs	473	504
Outward freight charges and other selling expenses	288	322
	761	826

Prior-year figures restated

The selling expenses mainly comprise those for the internal and external marketing and sales organization, freight charges, warehousing, packaging and the provision of advice to customers.

24 | Research and Development Expenses

The research and development expenses of €118 million (previous year: €103 million) mainly include the costs incurred to gain new scientific and technical knowledge, expenses relating to the search for alternative products and production processes, and costs for applying the results of research.

25 | General Administration Expenses

The general administration expenses, amounting to €307 million (previous year: €326 million), comprise costs not directly related to operational business processes and the costs for the country organizations.

26 | Other Operating Income

Other Operating Income

€ million	2017	2018
Income from non-core business	82	58
Exceptional items	8	16
Income from the reversal of provisions	18	9
Gains from the disposal of non-current assets	3	1
Income from reversals of write-downs of receivables and other assets	3	–
Miscellaneous operating income	50	38
	164	122

Prior-year figures restated

As in the previous year, the exceptional items primarily contain income from the reversal of provisions, particularly for restructuring, established as exceptional items in previous years. Based on economic relevance, they comprise €13 million (previous year: €3 million) allocated to the cost of sales and €3 million (previous year: €0 million) allocated to general administration expenses. In the previous year, exceptional items also included income from the sale of the U.S. subsidiary International Dioxide Inc., North Kingstown, U.S., of €5 million. This income was allocated to other operating income based on economic substance.

27 | Other Operating Expenses

Other Operating Expenses

€ million	2017	2018
Exceptional items	267	107
Expenses for non-core business	73	58
Expenses for hedging with derivative financial instruments	8	3
Write-downs/loss allowance on trade receivables and other current assets	6	2
Losses from the disposal of non-current assets	4	0
Miscellaneous operating expenses	51	31
	409	201

Prior-year figures restated

Exceptional items in fiscal year 2018 essentially include costs of €30 million for the strategic alignment, in turn including exceptional items in connection with the integration of the U.S. chemical group Chemtura. Furthermore, there were exceptional items for restructuring measures of €17 million to optimize the production network. This especially affected the Inorganic Pigments business

unit's Jinshan site in China (Performance Chemicals segment), the Additives business unit's Reynosa site in Mexico (Specialty Additives segment) and the Leather business unit's Zárate site in Argentina (Performance Chemicals segment). There were also exceptional items of €60 million for digitalization, costs for mergers and acquisitions, and other measures.

In the previous year, the exceptional items primarily included costs of restructuring measures of €121 million to optimize the production network. This especially affected the Ankerweg site in Amsterdam, Netherlands, of the Additives business unit (Specialty Additives segment) and the Zárate site in Argentina of the Leather business unit (Performance Chemicals segment). There were also exceptional items of €108 million for the strategic alignment. This included exceptional items in connection with the purchase price allocation and integration of U.S. chemicals group Chemtura. There were also exceptional items of €38 million for digitalization, costs for mergers and acquisitions, and other measures.

Of the exceptional items of €107 million (previous year: €267 million), €27 million (previous year: €217 million) was allocable to the cost of sales in line with its economic relevance, while €1 million (previous year: €6 million) was allocable to selling expenses, €0 million (previous year: €5 million) to research and development expenses and €79 million (previous year: €39 million) to general administration expenses.

28 | Financial Result

The financial result is comprised as follows:

Financial Result

€ million	2017	2018
Income from investments accounted for using the equity method	0	0
Interest income	9	6
Interest expense	(89)	(75)
Net interest expense	(80)	(69)
Interest expense from compounding interest-bearing provisions	(29)	(31)
Net exchange loss	(16)	(19)
Miscellaneous financial expense and income	1	(1)
Dividends and income from other affiliated companies	44	6
Other financial income and expense	0	(45)
Financial result	(80)	(114)

Prior-year figures restated

Interest expense includes in particular payments of bond interest adjusted for capitalized borrowing costs of €3 million (previous year: €2 million). The interest portion of the lease payments under finance leases, amounting to €2 million (previous year: €1 million), is included in interest expense. Other financial expenses and income includes an expense of €1 million from loss allowances for financial assets. This item also includes the monetary gain of €2 million from restating the price level in the context of financial reporting in hyperinflationary economies. The reduction in dividends and other income from affiliated companies primarily resulted from the lower profit transfer from Currenta GmbH & Co. OHG, Leverkusen, Germany.

29 | Income Taxes

This item comprises the income taxes paid or accrued in the individual countries, plus deferred taxes. Income taxes are computed on the basis of local tax rates.

The breakdown of income taxes by origin is as follows:

Income Taxes by Origin

€ million	2017	2018
Current taxes	(211)	(82)
Deferred taxes resulting from		
temporary differences	43	(29)
statutory changes in tax rates	(1)	(2)
loss carryforwards	10	(5)
Income taxes	(159)	(118)

Prior-year figures restated

The actual tax expense for fiscal year 2018 was €118 million (previous year: €159 million). This was €8 million (previous year: €88 million) less than the expected tax expense of €126 million (previous year: €71 million).

In calculating the expected tax expense for the LANXESS Group, the aggregated income tax rate of 32.3% (previous year: 32.3%) for the German tax entity was applied. This comprises a corporation tax rate of 15.0%, plus a solidarity surcharge (5.5% of corporation tax) and trade tax.

The reconciliation of the expected tax result to the actual tax result is as follows:

Reconciliation to Actual Tax Result

€ million	2017	2018
Income before income taxes	219	390
Aggregated income tax rate of LANXESS AG	32.3%	32.3%
Expected tax result	(71)	(126)
Tax difference due to differences between local tax rates and the hypothetical tax rate	1	22
Reduction in taxes due to tax-free income and reduction of tax bases	4	1
Increase in taxes due to		
non-tax-deductible expenses	(28)	(8)
unrecognized deferred taxes on tax losses and temporary differences	(14)	(48)
Other tax effects	(51)	41
Actual tax result	(159)	(118)
Effective tax rate	72.6%	30.3%

Prior-year figures restated

The other tax effects of €41 million (previous year: minus €51 million) essentially result from the reversal of impairment on deferred taxes. In the previous year this essentially included the effects of the U.S. tax reform, especially the one-off taxation of retained earnings of foreign investments held by our U.S. companies.

The deferred tax assets and liabilities are allocable to the various items of the statement of financial position as follows:

Deferred Taxes

€ million	Dec. 31, 2017		Dec. 31, 2018	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	25	201	7	172
Property, plant and equipment	24	183	4	152
Inventories	29	3	23	11
Receivables and other assets	34	25	55	44
Pension provisions	335	–	279	–
Other provisions	136	5	77	1
Liabilities	23	19	23	17
Loss carryforwards	159	–	127	–
	765	436	595	397
of which non-current	543	384	417	337
Set-off	(323)	(323)	(308)	(308)
	442	113	287	89

The change in deferred taxes is calculated as follows:

Changes in Deferred Taxes

€ million	2017	2018
Deferred taxes, January 1	359	329
Adjustments in accordance with IFRS 5	14	(107)
Tax income/expense recognized in the income statement	52	(36)
Changes in scope of consolidation	(86)	–
Deferred taxes recognized in other comprehensive income	(1)	21
Exchange differences	(9)	(9)
Deferred taxes, December 31	329	198

Prior-year figures restated

The adjustments in accordance with IFRS 5 result from the reporting of ARLANXEO as a discontinued operation.

The deferred taxes recognized in other comprehensive income comprised €11 million (previous year: €11 million) relating to remeasurements of the net defined benefit liability for post-employment benefit plans and €10 million (previous year: minus €12 million) relating to financial instruments. In addition, other comprehensive income contains current taxes of less than €1 million (previous year: €2 million). In the previous year, the changes in the scope of consolidation resulted from the acquisition of the U.S. group Chemtura.

Deferred tax assets of €30 million (previous year: €104 million), which exceed the reversal of taxable temporary differences, relate to tax jurisdictions in which losses were incurred in fiscal year 2018 or the previous year. LANXESS assumes that it will generate sufficient taxable income in the future to realize the deferred tax assets.

Based on tax planning calculations and strategies, deferred tax assets of €127 million (previous year: €159 million) were recognized on the €511 million (previous year: €592 million) in tax loss carryforwards that represent income likely to be realized in the future. This amount included deferred taxes of €15 million (previous year: €22 million) on loss carryforwards with an unlimited carryforward period.

Deferred taxes were not recognized for €813 million (previous year: €534 million) of tax loss carryforwards. Of this amount, €124 million (previous year: €283 million) can theoretically be used over more than five years. Further, deferred tax assets were not recognized in fiscal year 2018 for tax-deductible temporary differences of €225 million (previous year: €139 million). Accordingly, deferred taxes on loss carryforwards of €216 million (previous year: €141 million) and deferred tax assets on tax-deductible temporary differences of €56 million (previous year: €33 million) were not recognized.

30 | Earnings and Dividend per Share

Earnings per share for fiscal year 2018 amount to €4.71, consisting of €3.03 from continuing operations and €1.68 from discontinued operations. These values were calculated based on the weighted average number of shares outstanding in the reporting period. As of December 31, 2018, 91,522,936 shares were outstanding. Since there are currently no equity instruments in issue that could dilute earnings per share, basic and diluted earnings per share are identical. Further information on equity instruments that could dilute earnings per share in the future is contained in [Note \[13\]](#).

Earnings per Share

	2017	2018	Change %
Net income (€ million)	87	431	> 100
from continuing operations	60	277	> 100
from discontinued operations	27	154	> 100
Number of shares outstanding	91,522,936	91,522,936	–
Earnings per share in € (undiluted/diluted)	0.95	4.71	> 100
from continuing operations	0.66	3.03	> 100
from discontinued operations	0.29	1.68	> 100

Prior-year figures restated

LANXESS AG reported a distributable profit of €127 million for fiscal year 2018 (previous year: €116 million). The dividend payment made to stockholders of LANXESS AG during the reporting year amounted to €0.80 per share (previous year: €0.70 per share).

31 | Personnel Expenses

The breakdown of personnel expenses is as follows:

Personnel Expenses

€ million	2017	2018
Wages and salaries	1,018	1,066
Social security contributions	177	159
Retirement benefit expenses	85	90
Social assistance benefits	11	13
	1,291	1,328

Prior-year figures restated

Total personnel expenses rose in fiscal year 2018. Besides salary adjustments, this is mainly attributable to the increase in headcount in connection with the acquisitions of the U.S. group Chemtura in April 2017 and the U.S. phosphorus additives business of the Belgian chemicals group Solvay in February 2018. Site closures, particularly in Argentina, had an opposite effect. The personnel expenses shown here do not contain the interest expenses for compounding personnel-related provisions, especially pension provisions, which is reflected in the financial result (see Note [28]).

OTHER INFORMATION

32 | Employees

The average number of employees in the LANXESS Group in 2018 was 15,441 (previous year: 14,792). The year-on-year increase in the workforce essentially results from the acquisition of the U.S. group Chemtura in April 2017, the acquisition of the U.S. phosphorus additives business of the Belgian chemicals group Solvay in February 2018, and from organic growth. It is countered by effects from site closures, such as in Argentina.

Employees by Function

	2017	2018
Production	10,764	11,212
Administration	1,792	1,890
Marketing	1,754	1,812
Research	482	527
	14,792	15,441

Prior-year figures restated

33 | Contingent Liabilities and Other Financial Commitments

Contingent liabilities result from guarantees and similar instruments assumed on behalf of third parties. They represent potential future commitments in cases where the occurrence of certain events would create an obligation that was uncertain as of the closing date. An obligation to perform under such contingent liabilities arises in the event of delayed settlement or insolvency of the debtor.

Contingent liabilities to third parties as of December 31, 2018, amounted to less than €1 million (previous year: less than €1 million). There are no contingent liabilities relating to Currenta GmbH & Co. OHG, Leverkusen, Germany, which is accounted for using the equity method. As a personally liable partner in Currenta GmbH & Co. OHG, Leverkusen, Germany, LANXESS may be required to inject further capital into this company in the future.

In addition, other financial commitments also exist under operating leases.

As explained in the section on accounting policies and valuation principles, operating leases are those which – unlike finance leases – do not transfer substantially all risks and rewards incidental to the ownership of the leased assets to the lessee. In the LANXESS Group, operating leases are mainly used for operational reasons and not as a means of financing.

The expected non-discounted future lease and rental payments relating to operating leases totaled €176 million (previous year: €193 million).

The respective payment obligations mature as follows:

Maturity Structure of Lease and Rental Payments

€ million	Dec. 31, 2017	Dec. 31, 2018
Up to 1 year	41	38
1 to 2 years	35	31
2 to 3 years	27	25
3 to 4 years	23	20
4 to 5 years	17	17
More than 5 years	50	45
	193	176

Prior-year figures restated

Payments under operating leases in fiscal year 2018 amounted to €44 million (previous year: €48 million). Future lease and rental payments relate to the Group's headquarters in Cologne in particular. Other significant agreements relate to the global leasing of land, office buildings and warehouses. In addition, rail tankers and tank containers are leased for transporting raw materials and goods.

Financial commitments resulting from orders already placed under purchase agreements relating to planned or ongoing capital expenditure projects in the area of property, plant and equipment and intangible assets totaled €144 million (previous year: €92 million). All of these payments are due in fiscal year 2019.

Description of the master agreement

Under the master agreement that was concluded between Bayer AG and LANXESS AG together with the Spin-Off and Take-over Agreement, Bayer AG and LANXESS AG agreed, among other things, on commitments regarding mutual indemnification for liabilities in line with the respective asset allocation and on special arrangements allocating responsibility to deal with claims in the areas of product liability, environmental contamination and antitrust violations. The master agreement also contains arrangements for the allocation of tax effects relating to the spin-off and to the preceding measures to create the subgroup that was subsequently spun off.

34 | Related Parties

In the course of its operations, the LANXESS Group sources materials, inventories and services from a large number of business partners around the world. These include companies in which LANXESS AG has a direct or indirect interest. Transactions with these companies are carried out on an arm's-length basis.

Transactions with Currenta GmbH & Co. OHG, Leverkusen, Germany, which is accounted for in the consolidated financial statements using the equity method, and its subsidiaries mainly comprised the purchase of site services in the fields of utilities, infrastructure and logistics totaling €426 million (previous year: €458 million). As of December 31, 2018, trade payables of €117 million (previous year: €108 million), other liabilities of less than €1 million (previous year: €0 million), and receivables of €4 million (previous year: €3 million) existed as a result of these transactions. There were also payment obligations to Currenta GmbH & Co. OHG amounting to €7 million (previous year: €6 million) under operating leases and obligations of €9 million (previous year: €0 million) under purchase agreements. Contingent liabilities relating to Currenta GmbH & Co. OHG are outlined in the previous section.

Information on the compensation of the Board of Management and Supervisory Board can be found in the next section.

35 | Compensation of the Board of Management and the Supervisory Board

For fiscal year 2018, total compensation of €12,183 thousand (previous year: €14,581 thousand) was paid to the members of the Board of Management of LANXESS AG, comprising €8,597 thousand (previous year: €10,362 thousand) in short-term compensation (annual base salary, Annual Performance Payment (APP), benefits in kind and other), €0 thousand (previous year: minus €86 thousand) in adjustments for previous years, and other long-term compensation components totaling €1,726 thousand (previous year: €2,721 thousand) as part of the Long-Term Performance Bonus (LTPB). The total also includes compensation paid under the stock-based Long-Term Stock Performance Plan (LTSP). A total of 1,860,000 (previous year: 1,740,000) compensation rights were granted to the members of the Board of Management in fiscal year 2018. The fair value of these rights at the grant date was €1,860 thousand (previous year: €1,584 thousand). Stock-based compensation resulted in income of €81 thousand in fiscal year 2018 (previous year: expense of €1,558 thousand).

Details of the compensation system for members of the Board of Management and an individual breakdown of the compensation are given in the "[Compensation report](#)" section of the combined management report for fiscal year 2018.

In addition, service costs of €1,541 thousand (previous year: €1,509 thousand) relating to defined benefit pension plans were incurred in fiscal year 2018 for members of the Board of Management as part of their compensation package. The present value of the defined benefit obligation as of December 31, 2018, was €19,977 thousand (previous year: €18,377 thousand).

The total net expense for the compensation of the members of the Board of Management in fiscal year 2018 was €11,783 thousand (previous year: €16,064 thousand). The balances outstanding to members of the Board of Management as of December 31, 2018, totaled €10,881 thousand (previous year: €17,991 thousand), comprising provisions of €4,225 thousand (previous year: €7,025 thousand) for the APP, €3,053 thousand (previous year: €3,639 thousand) for the LTPB and €3,601 thousand (previous year: €7,327 thousand) for stock-based compensation.

Payments totaling €473 thousand were made to former members of the Board of Management in fiscal year 2018 (previous year: €473 thousand) and related to pension benefits. The total pension obligation toward former members of the Board of Management as of December 31, 2018, was €35,261 thousand (previous year: €34,828 thousand).

The members of the Supervisory Board received total compensation of €1,981 thousand in fiscal year 2018 (previous year: €1,883 thousand). This compensation is paid at the start of the following year. The provisions recognized for stock-based compensation for Supervisory Board members as of December 31, 2018, amounted to €1,310 thousand (previous year: €950 thousand).

In addition, the employee representatives on the Supervisory Board who are on LANXESS's payroll received remuneration under their employment contracts. The amounts of these salaries represented appropriate compensation for the employees' functions and tasks within the Group.

Details of the compensation system for members of the Supervisory Board and an individual breakdown of the amounts paid are contained in the section headed "[Compensation report](#)" in the combined management report for fiscal year 2018.

No loans were granted to members of the Board of Management or the Supervisory Board in fiscal year 2018 or the previous year.

36 | Financial Instruments

The "[Opportunity and risk report](#)" in the combined management report outlines the LANXESS Group's risk management system, including its objectives, methods and processes, and the material financial risks such as currency, interest rate, counterparty, liquidity and raw material price risks.

The risk that the fair value or the future cash flows of a financial instrument could change due to fluctuations in market prices is described below for the three market risks:

Currency risks

A hypothetical appreciation of 5% in the exchange rate of the euro against the hedged currencies as of the reporting date would have altered the fair value of derivatives by €11 million (previous year: €17 million). This would mainly have affected other comprehensive income by decreasing the reported loss correspondingly. This effect mainly relates to the U.S. dollar. A corresponding depreciation of the euro would have had basically the opposite effect.

Interest rate risks

Financial liabilities with variable interest rates are covered by investments with short-term fixed interest rates from available liquidity, so the LANXESS Group's net interest position will improve slightly if interest rates rise. A general change of one percentage point in interest rates as of December 31, 2018, would have altered Group net income by €5 million (previous year: €5 million).

Raw material price risks

A hypothetical increase or reduction in the hedged commodity prices of 10% as of the reporting date would have increased or decreased other operating income by €0 million (previous year: €0 million) as a result of changes in the fair value of hedging instruments.

The following table shows the contractually agreed (undiscounted) cash flows for primary financial liabilities, the interest components thereof and derivative financial instruments:

December 31, 2017

€ million	2018	2019	2020	2021	2022	> 2022
Bonds	(536)	(49)	(49)	(549)	(648)	(2,355)
of which interest	(36)	(49)	(49)	(49)	(48)	(1,255)
Liabilities to banks	(89)	-	-	-	-	-
of which interest	0	-	-	-	-	-
Trade payables	(1,048)	-	-	-	-	-
of which interest	-	-	-	-	-	-
Liabilities under finance leases	(13)	(11)	(10)	(8)	(8)	(29)
of which interest	(4)	(3)	(3)	(2)	(2)	(4)
Other primary financial liabilities	(35)	-	-	-	-	(16)
of which interest	(35)	-	-	-	-	-
Derivative liabilities						
Hedging instruments that qualify for hedge accounting						
Disbursements	(20)	(4)	-	-	-	-
Receipts	19	3	-	-	-	-
Other hedging instruments						
Disbursements	(599)	-	-	-	-	-
Receipts	585	-	-	-	-	-
Derivative assets						
Hedging instruments that qualify for hedge accounting						
Disbursements	(428)	(155)	(21)	(3)	(3)	(5)
Receipts	446	152	19	3	4	9
Other hedging instruments						
Disbursements	(1,341)	-	-	-	-	-
Receipts	1,358	-	-	-	-	-

December 31, 2018

€ million	2019	2020	2021	2022	2023	> 2023
Bonds	(55)	(55)	(555)	(654)	(37)	(2,844)
of which interest	(55)	(55)	(55)	(54)	(37)	(1,244)
Liabilities to banks	(29)	-	-	-	-	-
of which interest	-	-	-	-	-	-
Trade payables	(795)	-	-	-	-	-
of which interest	-	-	-	-	-	-
Liabilities under finance leases	(6)	(4)	(4)	(3)	(2)	(2)
of which interest	(1)	(1)	(1)	(1)	-	-
Other primary financial liabilities	(25)	-	-	-	-	(5)
of which interest	(25)	-	-	-	-	-
Derivative liabilities						
Hedging instruments that qualify for hedge accounting						
Disbursements	(264)	(41)	(3)	-	-	-
Receipts	244	37	3	-	-	-
Other hedging instruments						
Disbursements	(549)	-	-	-	-	-
Receipts	542	-	-	-	-	-
Derivative assets						
Hedging instruments that qualify for hedge accounting						
Disbursements	(41)	(7)	-	-	-	-
Receipts	41	7	-	-	-	-
Other hedging instruments						
Disbursements	(241)	-	-	-	-	-
Receipts	244	-	-	-	-	-

The contractually agreed payments for other primary financial liabilities due within one year from the reporting date included accrued interest of €25 million (previous year: €35 million) that mainly related to bonds.

Carrying amounts, measurement and fair values of financial instruments

The following tables show the carrying amounts of the individual classes of financial assets and liabilities and their fair values.

The basis of measurement is also shown:

Carrying Amounts, Measurement and Fair Values of Financial Instruments as of December 31, 2017

€ million	IAS 39 measurement category	Carrying amount Dec. 31, 2017
Financial assets		
Trade receivables	LaR	1,316
Other financial receivables	LaR	25
Cash and cash equivalents	LaR	538
Available-for-sale financial assets		
Near-cash assets	AFS	50
Other available-for-sale financial assets	AFS	10
Derivative assets		
Hedging instruments that qualify for hedge accounting	–	28
Other hedging instruments	FAHFT	22
Embedded derivatives	–	2
Financial liabilities		
Bonds	FLAC	(2,674)
Liabilities to banks	FLAC	(89)
Trade payables	FLAC	(1,048)
Liabilities under finance leases	–	(61)
Other primary financial liabilities	FLAC	(51)
Derivative liabilities		
Hedging instruments that qualify for hedge accounting	–	(3)
Other hedging instruments	FLHFT	(10)

LaR	Loans and receivables
AFS	Available-for-sale financial assets
FAHFT	Financial assets held for trading
FLAC	Financial liabilities measured at amortized cost
FLHFT	Financial liabilities held for trading

Measurement according to IAS 39				Measurement according to IAS 17	Fair value Dec. 31, 2017
Amortized cost	Acquisition cost	Fair value (other comprehensive income)	Fair value (profit or loss)		
1,316	-	-	-	-	1,316
25	-	-	-	-	25
538	-	-	-	-	538
-	-	50	-	-	50
-	9	1	-	-	10
-	-	28	-	-	28
-	-	-	22	-	22
-	-	-	2	-	2
(2,674)	-	-	-	-	(2,855)
(89)	-	-	-	-	(89)
(1,048)	-	-	-	-	(1,048)
-	-	-	-	(61)	(67)
(51)	-	-	-	-	(46)
-	-	(3)	-	-	(3)
-	-	-	(10)	-	(10)

Carrying Amounts, Measurement and Fair Values of Financial Instruments as of December 31, 2018

€ million	IAS 39 measurement category	IFRS 9 measurement category	Carrying amount Dec. 31, 2017 IAS 39	Reclassification according to IFRS 5
Financial assets				
Trade receivables	LaR	AC	1,316	(395)
Other financial receivables				
Financial assets – at cost	LaR	AC	5	–
Financial assets – at fair value through profit or loss	AfS	FV P&L	–	–
Other financial receivables – at cost	LaR	AC	20	(18)
Other financial receivables – at fair value through profit or loss	AfS	FV P&L	–	–
Other financial receivables – at fair value through other comprehensive income (debt instruments)	AfS	FV OCI	0	–
Contract assets	–	AC	–	–
Cash and cash equivalents	LaR	AC	538	(272)
Near-cash assets	AfS	AC	50	–
Equity instruments – at fair value through other comprehensive income	AfS	FV OCI	10	(2)
Derivative assets				
Hedging instruments that qualify for hedge accounting	–	–	28	(12)
Other hedging instruments	FAHfT	FV P&L	22	(6)
Embedded derivatives	–	FV P&L	2	–
Financial liabilities				
Bonds	FLAC	AC	(2,674)	–
Liabilities to banks	FLAC	AC	(89)	69
Trade payables	FLAC	AC	(1,048)	46
Liabilities under finance leases	–	–	(61)	46
Other primary financial liabilities	FLAC	AC	(51)	1
Derivative liabilities				
Hedging instruments that qualify for hedge accounting	–	–	(3)	2
Other hedging instruments	FLHfT	FV P&L	(10)	2
Embedded derivatives	–	FV P&L	–	–

1) The reclassifications/remeasurements result from the conversion to IFRS 9, not from changes in measurement categories according to IAS 39

LaR	Loans and receivables
AfS	Available-for-sale financial assets
FAHfT	Financial assets held for trading
FLAC	Financial liabilities measured at amortized cost
FLHfT	Financial liabilities held for trading
AC	Financial assets/liabilities at amortized cost
FV OCI	Financial assets at fair value other comprehensive income
FV P&L	Financial assets/liabilities at fair value profit and loss

Fair value measurement of the bonds is allocated to Level 1 of the hierarchy outlined in the following section “Fair value measurement.” However, two bonds with a fair value of €229 million (previous year: €239 million) are allocated to Level 2 of the hierarchy. The fair value of liabilities allocated to Level 2 is calculated using discounted cash flows, taking observed market interest rates into account.

Carrying Amounts by IAS 39 Measurement Category

€ million	Dec. 31, 2017
Loans and receivables	1,879
Available-for-sale financial assets	60
Financial assets held for trading	25
Financial assets	1,964
Financial liabilities measured at amortized cost	(3,862)
Financial liabilities held for trading	(11)
Financial liabilities	(3,873)

	Reclassifications/ remeasurements according to IFRS 9 ¹⁾ /IFRS 15	Carrying amount Jan. 1, 2018 IFRS 9	Carrying amount Dec. 31, 2018 IFRS 9	Measurement according to IFRS 9			Measurement according to IAS 17	Fair value Dec. 31, 2018
				Amortized cost	Fair value (other comprehensive income)	Fair value (profit or loss)		
	(1)	920	903	903	–	–	–	903
	–	5	493	493	–	–	–	493
	50	50	49	–	–	49	–	49
	–	2	14	14	–	–	–	14
	6	6	6	–	–	6	–	6
	–	0	0	–	0	–	–	0
	56	56	61	61	–	–	–	61
	–	266	797	797	–	–	–	797
	(50)	–	–	–	–	–	–	–
	(7)	1	0	–	0	–	–	0
	–	16	1	–	1	–	–	1
	–	16	3	–	–	3	–	3
	–	2	–	–	–	–	–	–
	–	(2,674)	(2,669)	(2,669)	–	–	–	(2,750)
	–	(20)	(29)	(29)	–	–	–	(30)
	–	(1,002)	(795)	(795)	–	–	–	(795)
	–	(15)	(17)	–	–	–	(17)	(19)
	–	(50)	(30)	(30)	–	–	–	(30)
	–	(1)	(20)	–	(20)	–	–	(20)
	–	(8)	(8)	–	–	(8)	–	(8)
	–	–	0	–	–	0	–	0

Carrying Amounts by IFRS 9 Measurement Category

€ million	Dec. 31, 2018
Financial assets measured at amortized cost	2,268
Financial assets measured at fair value through other comprehensive income (debt instruments)	0
Equity instruments measured at fair value through other comprehensive income	0
Financial assets required to be measured at fair value through profit or loss	58
Financial assets	2,326
Financial liabilities measured at amortized cost	(3,523)
Financial liabilities required to be measured at fair value through profit or loss	(9)
Financial liabilities	(3,532)

Fair value measurement

The measurement of fair value is based on a hierarchy reflecting the significance of the measurement inputs. The fair value measurement hierarchy for an asset or liability comprises three levels:

- Level 1 Quoted prices (unadjusted) in active markets for identical assets or liabilities on the measurement date
- Level 2 Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
- Level 3 Unobservable inputs for the asset or liability

The following tables show the volumes of assets and liabilities that were measured at fair value on a recurring basis as of the end of the reporting period and the levels of the fair value hierarchy into which the measurement inputs were categorized. Reclassification between the levels is reviewed as of each reporting date. There were no reclassifications in fiscal year 2017 or 2018.

Assets and Liabilities Measured at Fair Value

€ million	Dec. 31, 2017		
	Level 1	Level 2	Level 3
Non-current assets			
Investments in other affiliated companies	1	–	–
Non-current derivative assets	–	5	2
Other non-current financial assets	–	1	–
Current assets			
Near-cash assets	50	–	–
Current derivative assets	–	45	–
Other current financial assets	1	–	–
Non-current liabilities			
Non-current derivative liabilities	–	2	–
Current liabilities			
Current derivative liabilities	–	12	–

Assets and Liabilities Measured at Fair Value

€ million	Dec. 31, 2018		
	Level 1	Level 2	Level 3
Non-current assets			
Investments in other affiliated companies	–	–	0
Non-current derivative assets	–	0	–
Other non-current financial assets	–	1	6
Current assets			
Financial assets	49	–	–
Current derivative assets	–	4	–
Other current financial assets	–	–	–
Non-current liabilities			
Non-current derivative liabilities	–	3	0
Current liabilities			
Current derivative liabilities	–	25	–

Other equity investments of €0 million, which are assigned to Level 3 of the measurement hierarchy, include unlisted equity instruments for which the amount of the equity interests held is used as the most reliable estimate of fair value. There are currently no plans to dispose of these investments.

To avoid value fluctuations in profit or loss, the long-term investment in BioAmber Inc., Minneapolis, U.S., is measured at fair value through other comprehensive income. The fair value of the investment as of December 31, 2018, was €0 million.

Other non-current financial assets assigned to Level 3 include investments in High-Tech-Gründerfonds, which are measured based on the amount of the equity interests held. As in the previous year, the fair values amount to €6 million.

Financial assets comprise securities that can be sold at any time.

The non-current derivative liability allocated to Level 3 relates to a derivative not designated as a hedging instrument from a right of use contract, which due to its economic characteristics is not closely related to the host contract. It is measured by way of an option pricing model, the principal parameters of which are the development of the underlying commodity price, the exchange rate and their correlation. The embedded derivative had a negative fair value of €4 million on initial measurement, of which €1 million was amortized in the reporting period. Starting with a carrying amount of €2 million as of January 1, 2018, total reductions in value of more €2 million were recognized in production costs, with the result that a liability of less than €1 million is recognized as of the reporting date of December 31, 2018. Relative changes of 5% in relevant exchange rates, commodity prices and forecast volumes result in total fluctuations of less than €1 million.

Credit risk management

On initial recognition of financial assets measured at amortized cost or fair value through other comprehensive income, the Group calculates a loss allowance on the basis of probabilities of default. During the fiscal year, factors are observed indicating a significant increase in the risk of default. In order to assess whether there has been a significant increase in the risk of default, the risk of default at the end of the reporting period is compared to the risk of default on initial recognition. The indicators used include internal and external credit ratings, internal and external probabilities of default, material changes in business, financial and economic circumstances and material changes in operating earnings.

For *cash and cash equivalents and other financial receivables*, expected defaults for the next twelve months are used to calculate loss allowances provided there is no increased risk of default on contractual payments. If contractual payments are more than 30 days past due, the loss allowance is based on the expected defaults for the entire term. An event of default occurs when contractual payments are more than 180 days past due. These are then written down to the expected repayment amount. Legal action is initiated over impaired assets in order to achieve full or partial repayment. Receivables are written down in full if insolvency proceedings are opened.

No increased risk of default was ascertained for the financial assets listed. Thus, their risk of default was calculated based on the next twelve months:

Carrying Amounts and Risk Allowances

€ million	Dec. 31, 2017			Jan. 1, 2018			Dec. 31, 2018		
	Gross carrying amount	Risk allowance	Net carrying amount	Gross carrying amount	Risk allowance	Net carrying amount	Gross carrying amount	Risk allowance	Net carrying amount
Cash and cash equivalents	538	–	538	266	0	266	797	0	797
Other financial receivables	26	(1)	25	7	(1)	6	509	(2)	507

No cash and cash equivalents or other financial receivables were impaired due to actual defaults in fiscal year 2018.

The simplified model based on the lifetime expected credit losses is applied to *trade receivables*. These are calculated in a multi-stage process that analyses the economic circumstances, maturity structure and risk classes and then recognizes impairments if necessary. Trade receivables are written down by 50%

if more than 120 days past due and by 100% if more than 180 days past due, if the default is probable. Receivables are written down in full if insolvency proceedings are opened. Furthermore, loss allowances are calculated based on a past due matrix that takes into account historical loss rates for certain maturity structure classes and future probabilities of default on the basis of credit default swaps. Loss allowances are calculated as follows:

Aging Structure and Risk Allowances (Simplified Model) Dec. 31, 2018

€ million	Not overdue	1–30 days overdue	31–60 days overdue	61–90 days overdue	>90 days overdue	Total
Gross carrying amount trade receivables	802	86	7	1	7	903
Default rates calculated	0.0%	0.1%	0.4%	1.3%	2.6%	

Loss allowances in accordance with IAS 39 amounted to €17 million as of December 31, 2017. The sale of the investment in ARLANXEO reduces loss allowances by €3 million to €14 million as of January 1, 2018. The loss allowance increases under the simplified model by around €1 million as of January 1, 2018.

Carrying Amounts and Risk Allowances

€ million	Dec. 31, 2017			Jan. 1, 2018			Dec. 31, 2018		
	Gross carrying amount	Risk allowance	Net carrying amount	Gross carrying amount	Risk allowance	Net carrying amount	Gross carrying amount	Risk allowance	Net carrying amount
Trade receivables	1,333	(17)	1,316	804	(15)	789	918	(15)	903
Contract assets	–	–	–	52	0	52	61	0	61

€117 million of the decline in the gross carrying amounts of trade receivables from €1,333 million as of December 31, 2017, to €804 million as of January 1, 2018, results from the change in the recognition date of revenue following the introduction of IFRS 15 and €412 million from the change in the reporting of ARLANXEO's trade receivables as discontinued operations.

Loss allowances for *contract assets* are calculated based on the counterparty's individual probability of default applying the simplified model for the entire term.

The outstanding contractual payments that were written down in fiscal year 2018 and for which legal action was initiated amount to €5 million (previous year: €6 million). The following table shows the development of loss allowances for all financial assets from their opening value to the end of the reporting period:

Reconciliation Risk Allowance 2018

€ million	Expected loss allowance for cash and cash equivalents and other financial receivables ¹⁾	Expected loss allowance for trade receivables and contract assets	Expected loss allowance for credit impaired assets at acquisition	Total
	12 months	Lifetime – simplified model		
January 1	1	14	1	16
Newly acquired financial assets	1	5	–	6
Release	0	(3)	0	(3)
Financial assets derecognized in the period – sale, repayment, modification	0	(1)	0	(1)
Change of model or risk parameters	–	0	–	0
Currency or other differences	–	(1)	–	(1)
December 31	2	14	1	17

1) Cash and cash equivalents and other financial assets are not presented separately for reasons of materiality.

The expected credit losses for cash and cash equivalents and other financial receivables essentially result from money market and financial investments from the sale of the investment in ARLANXEO. The investments are not classified as receivables at risk of default as the counterparties have an investment grade rating according to international agencies and are therefore a low credit risk. The acquired, impaired financial assets include trade receivables from the acquisition of Chemtura in the previous year.

The change in the expected credit losses for trade receivables and contract assets results from ordinary operations. Due to a large and diversified customer structure, there is no material credit risk for trade receivables.

Offsetting of financial assets and financial liabilities

Offsetting was not used for the financial assets and financial liabilities recognized in the statement of financial position. The following tables show how legally enforceable netting arrangements impact, or could impact, the Group's financial position:

Offsetting of Financial Assets and Financial Liabilities as of December 31, 2017

€ million	Carrying amount of financial instruments	Related amounts not offset in the statement of financial position		Net amount
		Financial instruments	Financial collateral	
Financial assets				
Trade receivables	1,316	(3)	0	1,313
Derivative assets	52	(11)	–	41
Financial liabilities				
Trade payables	(1,048)	3	0	(1,045)
Derivative liabilities	(14)	11	–	(3)

Offsetting of Financial Assets and Financial Liabilities as of December 31, 2018

€ million	Carrying amount of financial instruments	Related amounts not offset in the statement of financial position		Net amount
		Financial instruments	Financial collateral	
Financial assets				
Trade receivables	903	(3)	0	900
Derivative assets	4	(4)	–	0
Financial liabilities				
Trade payables	(795)	3	0	(792)
Derivative liabilities	(28)	4	–	(24)

Either contracting party may offset on a net basis the positive and negative fair values arising from past-due derivative asset or liability contracts with the same counterparty.

Net results by measurement category

The following tables provide an overview of the net results based on the measurement categories defined in IAS 39 and IFRS 9:

Net Results by IAS 39 Measurement Category

€ million	2017
Loans and receivables	(75)
Available-for-sale financial assets	41
Assets and liabilities held for trading	84
Financial liabilities measured at amortized cost	(101)
	(51)

Prior-year figures restated

Net Results by IFRS 9 Measurement Category

€ million	2018
Financial assets measured at amortized cost	18
Financial assets and liabilities required to be measured at fair value through profit or loss	(36)
Equity instruments measured at fair value through other comprehensive income	(1)
Financial liabilities measured at amortized cost	(62)
	(81)

Net gains and losses principally comprise interest income and expense and realized and unrealized exchange gains and losses. Total interest revenue for financial assets that are measured at amortized cost amounts to €5 million; the total interest expense for financial liabilities that are not measured at fair value through profit or loss is €69 million.

In addition, fees of €5 million were incurred in fiscal year 2018 (previous year: €8 million) in connection with financial instruments.

Collateralization of financial liabilities

There were no financial liabilities collateralized by mortgages or other property claims in fiscal year 2018 or the previous year.

Mezzanine financing

Mezzanine instruments such as profit participation rights, convertible bonds or warrant bonds have not been issued. Information on the possible issuance of such instruments is given in [Note \[13\]](#).

37 | Notes to the Statement of Cash Flows

Explanation of the method used to calculate and present cash flows

For a general explanation, please see the comments on the statement of cash flows in the section headed "[Accounting Policies and Valuation Principles](#)".

Net cash provided by operating activities

The net cash flows from operating activities are determined by deducting the financial result, depreciation, amortization, write-downs, reversals of impairment charges and non-cash items from income before income taxes. A further adjustment is made for the change in other assets and liabilities. Income before income taxes, which is the starting point for the statement of cash flows, amounted to €390 million (previous year: €219 million). It contains depreciation, amortization and write-downs of €431 million (previous year: €410 million). Income taxes paid in fiscal year 2018 amounted to €156 million (previous year: €139 million). The change in net working capital resulted in cash outflows of €165 million (previous year: €66 million). Taking into account the change in other assets and liabilities of minus €90 million

(previous year: €108 million), cash inflows provided by operating activities from continuing operations amounted to €472 million in the reporting year (previous year: €568 million). Cash provided by operating activities from discontinued operations amounted to €114 million (previous year: €300 million).

Net cash provided by investing activities

Purchases of intangible assets, property, plant and equipment led to cash outflows of €497 million in fiscal year 2018 (previous year: €397 million). The cash outflows for financial assets in fiscal year 2018 mainly comprised €480 million for money market investments from the investment of the purchase price received for ARLANXEO. The acquisition of the U.S. phosphorus additives business of the Belgian chemicals group Solvay resulted in outflows of €54 million. The sale of the investment in ARLANXEO to Saudi Aramco resulted in inflows of €1.427 billion. In contrast, the cash and cash equivalents were reduced by €123 million. Cash inflows from interest and dividends received amounted to €15 million (previous year: €51 million). They primarily consisted of inflows from the profit transfer of €9 million from Currenta GmbH & Co. OHG, Leverkusen, Germany, which is accounted for using the equity method. Cash outflows for external funding of pension obligations (CTA) amounted to €200 million in fiscal year 2018 (previous year: €0 million). The net cash inflow for investing activities was €65 million (previous year: cash outflow €22 million) from continuing operations. Discontinued operations resulted in cash outflows from investing activities of €169 million (previous year: €145 million).

Net cash used in financing activities

The net repayment of borrowings of €9 million (previous year: €404 million) was attributable to financial liabilities as follows:

Reconciliation of Borrowings 2017

€ million	Dec. 31, 2016	Cash changes	Non-cash changes						Dec. 31, 2017
			Acquisitions	Divestments	Lease liabilities new additions	Exchange differences	Interest effect from compounding	Accrued interest and other changes	
Bonds	2,671	(390)	390	–	–	0	3	–	2,674
Liabilities to banks	44	32	17	–	–	(4)	–	–	89
Liabilities under finance leases	70	(15)	0	–	5	(3)	4	–	61
Other primary financial liabilities	27	(2)	7	–	–	0	–	19	51
	2,812	(375)	414	–	5	(7)	7	19	2,875

Reconciliation of Borrowings 2018

€ million	Dec. 31, 2017	Adjustments according to IFRS 5	Cash changes	Non-cash changes						Dec. 31, 2018
				Acquisitions	Divestments	Lease liabilities new additions	Exchange differences	Interest effect from compounding	Accrued interest and other changes	
Bonds	2,674	–	(8)	–	–	–	–	3	–	2,669
Liabilities to banks	89	(69)	9	–	–	–	–	–	–	29
Liabilities under finance leases	61	(46)	(10)	–	–	10	–	2	–	17
Other primary financial liabilities	51	–	–	–	–	–	–	–	(21)	30
	2,875	(115)	(9)	–	–	10	–	5	(21)	2,745

Interest payments and other financial disbursements accounted for cash outflows of €77 million (previous year: €77 million). In fiscal year 2018, cash outflows for dividend payments amounted to €74 million (previous year: €64 million), €73 million of which to the stockholders of LANXESS AG (previous year: €64 million). There was therefore a net cash outflow of €160 million (previous year: €545 million) for financing activities from continuing operations. Discontinued operations resulted in a net cash outflow of €57 million (previous year: net cash inflow of €37 million).

Cash and cash equivalents

Cash and cash equivalents, which comprise cash, checks and bank balances, amounted to €797 million (previous year: €538 million). In accordance with IAS 7, this item also includes securities with maturities of up to three months from the date of acquisition.

38 | Segment Reporting**Key Data by Segment**

€ million	Advanced Intermediates		Specialty Additives		Performance Chemicals		Engineering Materials		Reconciliation		LANXESS	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
External sales	1,975	2,207	1,611	1,980	1,439	1,349	1,366	1,576	139	85	6,530	7,197
Inter-segment sales	53	57	12	11	1	1	0	0	(66)	(69)	0	0
Segment/Group sales	2,028	2,264	1,623	1,991	1,440	1,350	1,366	1,576	73	16	6,530	7,197
Segment result/ EBITDA pre exceptionals	335	359	267	343	252	187	219	267	(148)	(140)	925	1,016
Exceptional items affecting EBITDA	(7)	0	(75)	(3)	(62)	(3)	(12)	(1)	(60)	(74)	(216)	(81)
Segment assets	1,437	1,543	2,516	2,706	1,216	1,205	1,164	1,269	156	184	6,489	6,907
Segment acquisitions	64	–	1,616	54	30	–	334	–	–	–	2,044	54
Segment capital expenditures	156	168	84	144	75	79	68	77	26	49	409	517
Depreciation and amortization	116	125	99	136	75	75	54	59	19	22	363	417
Write-downs	2	2	37	1	7	10	2	2	0	0	48	15
Reversals of impairment charges	1	–	0	1	–	–	–	0	–	–	1	1
Segment liabilities	852	752	577	624	552	506	332	383	727	626	3,040	2,891
Employees (December 31)	3,661	3,687	2,936	2,953	3,880	3,786	1,976	2,105	2,830	2,910	15,283	15,441
Employees (average for the year)	3,590	3,701	2,575	2,993	4,006	3,816	1,870	2,055	2,751	2,876	14,792	15,441

Prior-year figures restated

Key Data by Region

€ million	EMEA (excluding Germany)		Germany		North America		Latin America		Asia-Pacific		LANXESS	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
External sales by market	2,043	2,245	1,249	1,414	1,292	1,524	405	392	1,541	1,622	6,530	7,197
Non-current region assets	651	641	1,153	1,266	1,917	2,053	67	67	383	356	4,171	4,383
Acquisitions	393	–	80	–	1,391	54	14	–	166	–	2,044	54
Capital expenditures	78	79	224	279	65	117	12	12	30	30	409	517
Employees (December 31)	2,582	2,521	7,312	7,532	1,929	2,050	850	766	2,610	2,572	15,283	15,441

Prior-year figures restated

Segment reporting

The valuation principles applied in segment reporting correspond to the uniform accounting policies and valuation principles used for the consolidated financial statements prepared in accordance with IFRS.

Since April 1, 2018, the business activities of ARLANXEO have been run as a discontinued operation. Since this date, financial reporting has not included the earnings and key data of the former ARLANXEO segment, meaning that it is no longer actively managed by the senior management level of the LANXESS Group. Since the management approach has fundamentally changed accordingly, segment reporting no longer reports on ARLANXEO.

On December 31, 2018, the LANXESS Group comprised the following reporting segments:

Segments	Activities
Advanced Intermediates	The Advanced Intermediates segment comprises operational business units that manufacture basic and fine chemicals using primarily continuous production processes. The business units also manufacture precursors and intermediates for each other. The product portfolio includes high-grade intermediates for use by the agrochemicals and coatings industries, for example; fine chemicals as precursors and intermediates for the pharmaceuticals, agrochemicals and specialty chemicals industries; customer-specific specialties; organometallics; and tire chemicals.
Specialty Additives	The Specialty Additives segment comprises operational business units that manufacture additives in chemical production processes. The product portfolio includes additives for the rubber, plastic and paint industries, such as lubricants, flame retardants, plasticizers and bromine derivatives for a variety of applications.
Performance Chemicals	The Performance Chemicals segment comprises operational business units that manufacture process and functional chemicals as well as specialty products using chemical production processes. The product portfolio includes material protection products; inorganic pigments for the coloring of concrete, emulsion paints and other coatings; finishing agents for the leather industry; reverse osmosis membrane elements and ion exchange resins for water treatment; and disinfectant and hygiene solutions.
Engineering Materials	The Engineering Materials segment combines operational business units which manufacture high-tech plastics and high-performance composites using mainly continuous production processes. The production includes technical plastics, glass fibers and fiber composites as well as elastomers on a urethane basis for applications in the automotive and electrical/electronics industries, the construction industry, medicine, and the sports and leisure sectors.

The reconciliation eliminates inter-segment items and reflects assets, liabilities and results not allocable to the core segments including, in particular, those pertaining to the Corporate Center. The reconciliation also includes Currenta GmbH & Co. OHG, Leverkusen, Germany, which is accounted for using the equity method (see Note [3]).

The transfer prices used for inter-segment business transactions are calculated using the OECD rules as if they had been agreed upon between independent third parties in comparable circumstances (arm's-length principle).

The majority of employees reflected in the reconciliation provide services for more than one segment. They include technical service staff.

The reporting regions are those into which LANXESS's activities are organized: EMEA (Europe [excluding Germany], Middle East, Africa), Germany, North America, Latin America and Asia-Pacific. Regional sales are calculated according to the recipient's place of business. In fiscal year 2018, no individual customer of the LANXESS Group accounted for 10% or more of Group sales.

The earnings indicator used for internal management purposes in the LANXESS Group is the operating result before depreciation and amortization (EBITDA) pre exceptionals (see the section headed "Value management and control system" in the combined management report for fiscal year 2018). This is disclosed as the "segment result". The starting point for calculating EBITDA pre exceptionals is the operating result (EBIT), which comprises gross profit, selling expenses, general administration expenses, research and development expenses and other operating income and expenses. EBIT and EBITDA are alternative key financial ratios not defined according to the International Financial Reporting Standards (IFRS). These are viewed as supplementary and not a substitute to the data prepared according to IFRS. EBITDA pre exceptionals is calculated from EBIT before depreciation/reversals of property, plant and equipment, amortization and impairments of intangible assets, disregarding exceptional items. The latter are effects that, by nature or extent, have a significant impact on the earnings position, but for which inclusion in the evaluation of business performance over several reporting periods does not seem to be appropriate. Exceptional items may include write-downs, reversals of impairment charges or the proceeds from the disposal of assets, certain IT expenses, restructuring expenses and income from the reversal of provisions established in this connection, and reductions in earnings resulting from portfolio adjustments or purchase price allocations.

The segment sales include sales recognized over time of €307 million, of which €252 million relate to the Advanced Intermediates segment, €2 million to the Specialty Additives segment, €10 million to the Performance Chemicals segment, €16 million to the Engineering Materials segment, and €27 million to the reconciliation. All other sales are recognized at a point in time. Please see Note [21] for further information.

In view of the Group's central financial management, interest income and expense and income tax income and expense are not reported at segment level.

The negative exceptional items that affected EBITDA of €96 million in fiscal year 2018 primarily relate to expenses in connection with the strategic realignment of the LANXESS Group, digitalization projects, and the intended closure of production at the Jinshan site in Shanghai, China. They are offset by positive exceptional items of €15 million, which mainly relate to income from the reversal of provisions, particularly for restructuring, established as exceptional items in previous years. The exceptional items in the previous year mainly related to the strategic realignment of the Group and the optimization of the production network.

The segment acquisitions include the acquired net assets including goodwill as of the acquisition date.

Capital expenditures made by the segments comprise additions to intangible assets, property, plant and equipment.

All depreciation, amortization and write-downs in fiscal year 2017 and 2018 were recognized directly in profit or loss.

Reconciliation of Segment Sales

€ million	2017	2018
Total segment sales	6,457	7,181
Other/Consolidation	73	16
Group sales	6,530	7,197

Prior-year figures restated

Reconciliation of Segment Results

€ million	2017	2018
Total segment results	1,073	1,156
Depreciation and amortization	(411)	(432)
Reversals of impairment charges	1	1
Exceptional items affecting EBITDA	(216)	(81)
Other financial income and expense	0	(45)
Net interest expense	(80)	(69)
Income from investments accounted for using the equity method	0	0
Other/Consolidation	(148)	(140)
Income before income taxes	219	390

Prior-year figures restated

The reconciliation of segment results to income before income taxes contains total exceptional items comprising net charges of €91 million (previous year: charges of €259 million) (see Notes [26] and [27]). These include exceptional items of minus €81 million (previous year: minus €216 million) that affect EBITDA, write-downs of minus €10 million (previous year: minus €43 million), and reversals of impairment charges of €0 million (previous year: €0 million).

The change in segment results in the reconciliation is mainly due to lower expenses for currency hedges.

Information on equity-method income is contained in Note [3]. This mainly arises from the provision of site services by Currenta GmbH & Co. OHG, Leverkusen, Germany, and is not allocated among the segments.

Reconciliation of Segment Assets

€ million	Dec. 31, 2017	Dec. 31, 2018
Total segment assets	6,333	6,723
ARLANXEO adjustments	2,746	–
Cash and cash equivalents	538	797
Deferred tax assets	442	287
Near-cash assets	50	–
Income tax receivables	67	69
Derivative assets	52	4
Other financial assets	27	623
Other/Consolidation	156	184
Group assets	10,411	8,687

Prior-year figures restated

The ARLANXEO adjustments essentially result from the sale of the investment in ARLANXEO.

The segment assets mainly comprise intangible assets, property, plant and equipment, inventories and trade receivables. They do not include items such as cash and cash equivalents and deferred taxes.

Reconciliation of Segment Liabilities

€ million	Dec. 31, 2017	Dec. 31, 2018
Total segment liabilities	2,313	2,265
ARLANXEO adjustments	761	–
Other financial liabilities	2,875	2,745
Derivative liabilities	14	28
Income tax liabilities	195	161
Deferred tax liabilities	113	89
Other/Consolidation	727	626
Group liabilities	6,998	5,914

Prior-year figures restated

The ARLANXEO adjustments essentially result from the sale of the investment in ARLANXEO.

The segment liabilities mainly comprise provisions, trade payables and other liabilities. The reconciliation (line “Other/Consolidation”) of segment liabilities primarily contains pension and other provisions that are attributable to the Corporate Center. They do not include income tax liabilities in particular, as well as derivative and other financial liabilities.

39 | Audit Fees

In fiscal year 2018, total audit fees of €2,438 thousand (previous year: €3,121 thousand) for the auditor of the consolidated financial statements of the LANXESS Group were recognized as expenses. The total amount includes €1,789 thousand (previous year: €2,436 thousand) relating to the auditing of financial statements. The previous year was influenced by audit services in connection with the ARLANXEO strategic alliance. The fees were mainly paid for the audit of LANXESS AG's annual financial statements and of the consolidated financial statements including the early warning system and for the review of the condensed consolidated interim financial statements. €478 thousand (previous year: €215 thousand) related to other audit-related services, primarily services in connection with sustainability reporting and other services for audit certificates. In the reporting year, there were also other audit-related services in connection with the disposal of ARLANXEO. €171 thousand (previous year: €470 thousand) related to other services. In the previous year, they largely included services from IT service provider PwC Cundus AG, a company affiliated with the auditor, totaling €200 thousand. The fees for financial statements audit services comprise all fees, including incidental expenses, paid or to be paid for the audits of the consolidated financial statements of the LANXESS Group and the financial statements of LANXESS AG and its German subsidiaries.

40 | Declaration of Compliance Pursuant to Section 161 of the Stock Corporation Act

The Declaration of Compliance with the German Corporate Governance Code has been issued by the Board of Management and Supervisory Board pursuant to Section 161 of the German Stock Corporation Act (AktG) and made available to stockholders on the LANXESS website.

41 | Utilization of Disclosure Exemptions

In fiscal year 2018, the following German subsidiaries made use of disclosure exemptions pursuant to Section 264, Paragraph 3 of the German Commercial Code (HGB):

- › Bond-Laminates GmbH, Brilon
- › CheMondis GmbH, Cologne
- › IAB Ionenaustauscher GmbH Bitterfeld, Greppin
- › IMD Natural Solutions GmbH, Dortmund
- › LANXESS Accounting GmbH, Cologne
- › LANXESS Deutschland GmbH, Cologne
- › LANXESS Distribution GmbH, Leverkusen
- › LANXESS Organometallics GmbH, Bergkamen
- › Saltigo GmbH, Leverkusen
- › Siebte LXS GmbH, Cologne

Outside Germany, LANXESS Limited (registration no. 03498959), Newbury, Great Britain, utilized the exemption from the auditing of its annual financial statements as permitted by Section 479A of the Companies Act 2006. As required by law, LANXESS AG, as the parent company, guaranteed all outstanding liabilities as of December 31, 2018, with respect to Section 479C of the Companies Act 2006.

42 | Events after the Reporting Period

In January 2019, LANXESS announced a stock repurchase volume of up to €200 million. The repurchase is to end no later than December 31, 2019. The shares will be redeemed. The stock repurchase is being implemented on the basis of the authorization granted by the Annual Stockholders' Meeting on May 20, 2016, which allows repurchases of up to 10% of the capital stock of LANXESS AG.

No other events of particular significance took place after December 31, 2018, that could be expected to have a material effect on the earnings, asset and financial position of the LANXESS Group or LANXESS AG.

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable financial reporting principles, the consolidated financial statements give a true and fair view of the earnings, asset and financial position of the Group, and the combined management report includes a fair review of the development and performance of the business and the position of the LANXESS Group and LANXESS AG, together with a description of the principal opportunities and risks associated with the expected development of the LANXESS Group and LANXESS AG.

Cologne, February 27, 2019
LANXESS Aktiengesellschaft

The Board of Management

Matthias Zachert

Michael Pontzen

Dr. Rainier van Roessel

Dr. Hubert Fink

Independent Auditor's Report

"To LANXESS Aktiengesellschaft, Cologne

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

Audit Opinions

We have audited the consolidated financial statements of LANXESS Aktiengesellschaft, Cologne, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2018, and the consolidated statement of comprehensive income, consolidated statement of profit or loss, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1 to December 31, 2018, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of LANXESS Aktiengesellschaft, which is combined with the Company's management report, for the financial year from January 1 to December 31, 2018. In accordance with the German legal requirements, we have not audited the content of the statement on corporate governance pursuant to § [Article] 289f HGB [Handelsgesetzbuch: German Commercial Code] and § 315d HGB.

In our opinion, on the basis of the knowledge obtained in the audit,

- › the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315e Abs. [paragraph] 1 HGB and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2018, and of its financial performance for the financial year from January 1 to December 31, 2018, and
- › the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of the statement on corporate governance referred to above.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2018. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matters of most significance in our audit were as follows:

- ① Recoverability of goodwill
- ② Pension provisions
- ③ Disposal of the shares in ARLANXEO

Our presentation of these key audit matters has been structured in each case as follows:

- ① Matter and issue
- ② Audit approach and findings
- ③ Reference to further information

Hereinafter we present the key audit matters:

① Recoverability of goodwill

① In the Company's consolidated financial statements goodwill of €850 million (10 % of consolidated total assets or 31 % of Group equity) is reported under the "Goodwill" balance sheet item.

The Company allocates goodwill to the respective cash-generating units. Goodwill is tested for impairment once a year, unless events or a change in circumstances indicates any sooner that goodwill may be impaired. The carrying amount of the relevant cash-generating units, including goodwill, is compared with the corresponding recoverable amount in the context of the impairment test. In general, the recoverable amount is calculated on the basis of fair value less costs to sell. The present value of the future cash flows from the respective cash-generating units normally serves as the basis of measurement. Present values are calculated using discounted cash flow models. The discounted cash flow models are based on cash flow projections, which in turn are based on the five-year plan approved by the executive directors and applicable at the time the impairment test is carried out. The future net cash flows are discounted using a weighted cost of capital. The impairment test determined that no impairment losses had to be recognized.

This matter was of particular significance to our audit, because the result of this measurement depends to a large extent on the Company's executive directors' assessment of future cash inflows, the discount rate used, the growth rates assumed, and other assumptions made and is therefore subject to considerable uncertainty.

② As part of our audit, we assessed the methodology employed for the purposes of performing the impairment test, among other things. We evaluated the appropriateness of the future cash inflows used in the measurement, among other things by comparing this data with the current budgets in the five-year plan approved by the executive directors, and reconciling it against general and sector-specific market expectations. We also evaluated the appropriate consideration of the costs of Group functions. With the knowledge that even relatively small changes in the discount rate applied can have material effects on the value of the entity calculated in this way, we also assessed the parameters used to determine the discount rate applied, including the weighted average cost of capital, and evaluated the measurement model. Furthermore, we assessed the sensitivity analysis carried out by the Company and additionally performed our own sensitivity analysis for the cash-generating units and, taking into account the information available, determined that the carrying amounts of the cash-generating units, including the allocated goodwill, were adequately covered by the discounted future cash flows. Overall, the measurement inputs and assumptions used by the executive directors are in line with our expectations and are also within the ranges considered by us to be reasonable.

③ The Company's disclosures on goodwill are contained in the sections entitled "Intangible assets," "Method and impact of the global impairment tests," and "Judgments and estimates" in the notes to the consolidated financial statements.

② Pension provisions

① In the consolidated financial statements of the Company pension provisions amounting to €1,083 million are reported under the balance sheet item "Provisions for pensions and similar obligations." The pension provisions comprise mainly obligations from defined benefit pension plans and netted plan assets.

Obligations under defined benefit plans are measured using the projected unit credit method. This requires assumptions to be made in particular about long-term rates of growth in salaries and pensions, average life expectancy, and staff turnover. Furthermore, the discount rate applied as of the balance sheet date must be determined by reference to market yields on high-quality corporate bonds with matching currencies and terms which are consistent with the expected maturities of the obligations. This usually requires the data to be extrapolated, since no sufficiently long-term corporate bonds exist. The plan assets are measured at fair value.

From our point of view, these matters were of particular significance in the context of our audit because the recognition and

measurement of this item – which is significant in terms of its amount – are based to a large extent on estimates and assumptions made by the Company's executive directors.

② As part of our audit, we evaluated the actuarial expert reports obtained and the professional qualifications of the external experts, among other things. We also assessed the specific features of the actuarial calculations and examined the numerical data, the actuarial parameters and the valuation methods on which the valuations were based for compliance with standards and appropriateness, in addition to other procedures. In addition, we analyzed the changes in the obligation and the cost components in accordance with actuarial expert reports in the light of changes occurring in the valuation parameters and the numerical data, and assessed their plausibility. For the purposes of our audit of the fair value of plan assets, we obtained bank confirmations.

Based on our audit procedures, we were able to satisfy ourselves that the estimates and assumption made by the executive directors were substantiated and adequately documented.

③ The Company's disclosures on the provisions for pensions are contained in the section entitled "Pension provisions and similar obligations" in the notes to the consolidated financial statements.

③ Disposal of the shares in ARLANXEO

① On April 1, 2016, LANXESS established a strategic alliance for the synthetic rubber business with Aramco Overseas Holdings Coöperatief U.A., The Hague (Netherlands), under the name ARLANXEO. Both partners held each a 50% stake in ARLANXEO Holding B.V., Maastricht (Netherlands). The business area was included in LANXESS' consolidated financial statements and was fully consolidated, because LANXESS had control over the company, within the meaning of IFRS 10, on the basis of contractual provisions. As of the second quarter of 2018, ARLANXEO was designated as held for sale pursuant to IFRS 5 and was classified as a discontinued operation. On August 8, 2018, LANXESS reached an agreement on the sale of its 50% stake in ARLANXEO to Saudi Aramco. Once all necessary approvals had been received, ARLANXEO was deconsolidated with effect from December 31, 2018. As part of deconsolidation, a disposal gain of €90 million was recognized at the Group level. In our view, this matter was of particular significance for our audit due to the complexity and the material effects on the Group.

② To assess whether the accounting treatment of the disposal of the shares in ARLANXEO was appropriate we examined, inter alia, as part of our audit, the company law principles as well as the terms of the underlying sale agreement. In this regard, we examined and assessed the fulfilment of the conditions for the designation as held for sale in accordance with IFRS 5 during the financial year, the resulting effects on the measurement of assets and liabilities and the deconsolidation of ARLANXEO. We were

able to satisfy ourselves that the presentation and reporting of the disposal of the shares in ARLANXEO were comprehensively documented and that the recognized effects on earnings were appropriately calculated.

③ The Company's disclosures on the disposal of the shares in ARLANXEO are contained in the sections „Non-current Assets Held for Sale and Discontinued Operations“, „Discontinued Operations“ and „Reporting to the consolidated companies“ of the notes to the consolidated financial statements.

Other Information

The executive directors are responsible for the other information. The other information comprises the statement on corporate governance pursuant to § 289f HGB and § 315d HGB.

The other information comprises further the remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and our auditor's report, and the separate non-financial report pursuant to § 289b Abs. 3 HGB and § 315b Abs. 3 HGB.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- › is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- › otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the

going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- › Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- › Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- › Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- › Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- › Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.
- › Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- › Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- › Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation

of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on May 15, 2018. We were engaged by the supervisory board on October 29, 2018. We have been the group auditor of the LANXESS Aktiengesellschaft, Cologne, without interruption since the financial year 2005.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Jörg Sechser."

Cologne, March 1, 2019

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Jörg Sechser
German Public Auditor

ppa. Martin Krug
German Public Auditor

FURTHER INFORMATION

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About This Report

REPORTING METHODOLOGY

This report combines financial and sustainability reporting by the LANXESS Group. It is aligned to national and international standards for financial and sustainability reporting, especially the International Financial Reporting Standards (IFRS), German accounting standards (DRS) and the principles of the U.N. Global Compact. This report was also created in compliance with the GRI standards ("core" option).

This report contains information according to the transparency requirements of the U.K. Modern Slavery Act. The complete "Slavery and human trafficking statement" can be viewed on the [British LANXESS website in the Corporate Responsibility section under Commitment to human rights](#).

Reporting is performed annually. The last report for fiscal year 2017 was published in March 2018.

NON-FINANCIAL REPORTING

The Supervisory Board examined and approved the non-financial consolidated report of the LANXESS Group prescribed according to Sections 289c and 315c of the German Commercial Code (CSR Directive Implementation Act). The non-financial consolidated report was audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft with limited assurance. The corresponding content is identified with a gray line in the CR chapter of this annual report.

DATA COLLECTION

The reporting year is 2018. In compiling the data, we applied the principles of balance, comparability, accuracy, timeliness, clarity and reliability. The report covers the Group companies that are also included in the consolidated financial statements.

ARLANXEO will be reported as a discontinued operation in financial reporting for fiscal year 2018. Reporting regarding non-financial issues follows fundamentally the same analysis perspective and focuses on ongoing operations. For central key figures, the data for/including ARLANXEO will also be cited. In the case of other key figures that do not refer exclusively to ongoing operations, the relevant areas of scope are explicitly defined in the report.

For disclosure of HR key figures, LANXESS uses a global reporting system that contains the key employee data for the entire Group.

We use electronic data capture systems for the systematic global recording of key performance indicators (KPIs) in the areas of safety and environmental protection. The two performance indicators we use to measure occupational safety – the lost time injury frequency rate (LTIFR, known as MAQ in Germany) and the recordable incident rate (RIR) – apply to all sites. Environmental protection data are gathered only at those production sites in which the company has a holding of more than 50%.

With regard to the collection of emissions data, we have taken into account the recommendations of the Greenhouse Gas Protocol (GHG Protocol) and the International Energy Agency (IEA). To ensure the quality of data, PricewaterhouseCoopers has audited selected key figures with limited assurance. These are identified accordingly in the report.

KEY REPORT CONTENT

The content of the report for fiscal year 2018 is based on a materiality analysis performed in the fourth quarter of 2017. All key issues identified are described in detail in this report.

The following table identifies the boundaries (GRI 103-1) between the key issues and the GRI standards that they cover.

Boundaries

Key Issues	Within the Organization		Outside the Organization			Management approach (GRI 103-2, 103-3)/ associated GRI standard (2016)
	Advanced Intermediates/ Specialty Additives/Performance Chemicals/Engineering Materials		Suppliers	Customers	Society	
Good Corporate Governance	X		X	X	X	Management approach: p. 13–18, 49–52 GRI 205: Anti-corruption GRI 206: Anticompetitive Behavior GRI 307: Environmental Compliance GRI 406: Non-discrimination GRI 408: Child Labor GRI 409: Forced Labor GRI 410: Security Practices GRI 411: Indigenous Rights GRI 412: Human Rights Assessment GRI 415: Public Policy GRI 416: Customer Health and Safety GRI 417: Marketing and Labeling GRI 418: Customer Privacy GRI 419: Socioeconomic Compliance
Energized Employees and Performing Teams	X				X	Management approach: p. 12, 14, 19–30 GRI 202: Market Presence GRI 401: Employment GRI 402: Labor/Management Relations GRI 403: Occupational Health and Safety GRI 404: Training and Education GRI 405: Diversity and Equal Opportunity GRI 407: Freedom of Association and Collective Bargaining
Resilient Sourcing	X		X			Management approach: p. 10, 16, 30–31, 65 GRI 204: Procurement Practices GRI 308: Supplier Environmental Assessment GRI 414: Supplier Social Assessment
Safe and Sustainable Sites	X				X	Management approach: p. 11, 14, 31–38 GRI 203: Indirect Economic Impacts GRI 303: Water and Effluents GRI 306: Effluents and Waste GRI 413: Local Communities
Climate Action and Energy Efficiency	X		X	X	X	Management approach: p. 11, 14, 38–41 GRI 302: Energy GRI 305: Emissions
Sustainable Product Portfolio	X			X	X	Management approach: p. 12, 42–43 GRI 301: Materials GRI 416: Customer Health and Safety GRI 417: Marketing and Labeling
Business-Driven Innovation	X			X		Management approach: p. 12, 43–44, 66
Valuing Customer Relationships	X			X		Management approach: p. 9, 12, 44

Non-financial Group Report: Independent Assurance Report

INDEPENDENT PRACTITIONER'S REPORT ON A LIMITED ASSURANCE ENGAGEMENT ON NON-FINANCIAL REPORTING¹⁾

"To LANXESS AG, Cologne

We have performed a limited assurance engagement on the separate non-financial group report pursuant to § (Article) 315b Abs. (paragraph) 3 HGB ("Handelsgesetzbuch": "German Commercial Code") of LANXESS AG, Cologne (hereinafter the "Company") for the period from 1 January to 31 December 2018 (hereinafter the "Non-financial Report").

Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Non-financial Report in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB.

This responsibility of Company's executive directors includes the selection and application of appropriate methods of non-financial reporting as well as making assumptions and estimates related to individual non-financial disclosures which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as they have considered necessary to enable the preparation of a Non-financial Report that is free from material misstatement whether due to fraud or error.

Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung

in der Wirtschaftsprüferpraxis – IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's Responsibility

Our responsibility is to express a limited assurance conclusion on the Non-financial Report based on the assurance engagement we have performed.

Within the scope of our engagement, we did not perform an audit on external sources of information or expert opinions, referred to in the Non-financial Report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the Company's Non-financial Report for the period from 1 January to 31 December 2018 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement, and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

1) PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the separate non-financial report and issued an independent assurance report in German language, which is authoritative. The following text is a translation of the independent assurance report.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- › Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- › Inquiries of management and relevant personnel involved in the preparation of the Non-financial Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Non-financial Report
- › Identification of the likely risks of material misstatement of the Non-financial Report
- › Analytical evaluation of selected disclosures in the Non-financial Report
- › Comparison of selected disclosures with corresponding data in the consolidated financial statements and in the group management report
- › Evaluation of the presentation of the non-financial information

Assurance Conclusion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the Company's Non-financial Report for the period from 1 January to 31 December 2018 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB.

Intended Use of the Assurance Report

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company about the results of the limited assurance engagement. The report is not intended for any third parties to base any (financial) decision thereon. Our responsibility lies only with the Company. We do not assume any responsibility towards third parties.

Cologne, 1 March 2019

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Hendrik Fink
German public auditor

ppa. Juliane v. Clausbruch"

Environmental and Safety Performance Data: Independent Assurance Report

INDEPENDENT PRACTITIONER'S REPORT ON A LIMITED ASSURANCE ENGAGEMENT ON SUSTAINABILITY INFORMATION¹⁾

“To LANXESS AG, Cologne

We have performed a limited assurance engagement on data in the “Environmental and Safety Performance Data” table included in the “Safe and sustainable sites” section of the “Corporate Responsibility” chapter in the Annual Report 2018 of LANXESS AG, Cologne (hereinafter: “the Company”), for the period from 1 January to 31 December 2018 (hereafter “Environmental and Safety Performance Data”).

Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Report in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter: “GRI-Criteria”).

This responsibility of Company's executive directors includes the selection and application of appropriate methods to prepare the Environmental and Safety Performance Data as well as making assumptions and estimates related to individual sustainability disclosures, which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as they have considered necessary to enable the preparation of the Environmental and Safety Performance Data that is free from material misstatement whether due to fraud or error.

Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors (“Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer”: “BS WP/vBP”) as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis – IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's Responsibility

Our responsibility is to express a limited assurance conclusion on the sustainability information in the Environmental and Safety Performance Data in the Report based on the assurance engagement we have performed.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the disclosures in the Environmental and Safety Performance Data for the period from 1 January to 31 December 2018 have not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

1) PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the table “Environmental and Safety Performance Data” and issued an independent assurance report in German language, which is authoritative. The following text is a translation of the independent assurance report.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- › Inquiries of personnel involved in the preparation for reporting the environmental and safety performance data regarding the preparation process, the underlying internal control system and the environmental and safety performance data
- › Identification of potential risks of material misstatements based on the GRI criteria
- › Analytical procedures on the environmental and safety performance data
- › Assessment of the presentation of the environmental and safety data in the Environmental and Safety Performance Data table

Assurance Conclusion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures in the Environmental and Safety Performance Data of the Company for the period from 1 January to 31 December 2018 have not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

Intended Use of the Assurance Report

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company as to the results of the assurance engagement. The report is not intended to provide third parties with support in making (financial) decisions. Our responsibility lies solely toward the Company. We do not assume any responsibility towards third parties.

Cologne, 1 March 2019

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Hendrik Fink
German Public Auditor

ppa. Juliane v. Clausbruch"

GRI Content Index

GRI Standard	Location	Comments and Online Annexes	UNGC
GRI 101: Foundation 2016			
GRI 102: General Disclosures 2016			
ORGANIZATIONAL PROFILE			
102-01	Name of the organization	LANXESS AG	
102-02	Activities, brands, products, and services	p. 60–61 lanxess.com/en/corporate/products-solutions/products-solutions/	
102-03	Location of headquarters	Cologne, Germany	
102-04	Location of operations	p. 61, 73–74 lanxess.com/en/corporate/about-lanxess/sites-worldwide/	
102-05	Ownership and legal form	p. 46–47, 60	
102-06	Markets served	p. 65–66, 67–68, 73–74	
102-07	Scale of the organization	Key data table cover, p. 35, 86	
102-08	Information on employees and other workers	p. 24	6
102-09	Supply chain	p. 30–31, 65	
102-10	Significant changes to the organization and its supply chain	p. 60–61, 135–138	
102-11	Precautionary principle or approach	p. 43–44, 66, 98–99	
102-12	External initiatives	p. 15–16, 40, 42, 205 lanxess.com/en/corporate/corporate-responsibility/safe-and-sustainable-sites/corporate-citizenship/	
102-13	Membership of associations	p. 31, 205	
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102-14	Statement from senior decision-maker	p. 2	
102-15	Key impacts, risks, and opportunities	p. 4–6, 8, 43–44, 96–108 lanxess.com/en/corporate/corporate-responsibility/goals-and-strategy/	
ETHICS AND INTEGRITY			
102-16	Values, principles, standards, and norms of behavior	p. 13, 15–17	10
GOVERNANCE			
102-18	Governance structure	p. 49–52	10
STAKEHOLDER ENGAGEMENT			
102-40	List of stakeholder groups	p. 9 lanxess.com/en/corporate/corporate-responsibility/goals-and-strategy/stakeholders-relations/	
102-41	Collective bargaining agreements	p. 30	3
102-42	Identifying and selecting stakeholders	p. 9 lanxess.com/en/corporate/corporate-responsibility/goals-and-strategy/stakeholders-relations/	
102-43	Approach to stakeholder engagement	p. 9, 22, 42–44 lanxess.com/en/corporate/corporate-responsibility/goals-and-strategy/stakeholders-relations/	
102-44	Key topics and concerns raised	p. 9, 22, 42–44 lanxess.com/en/corporate/corporate-responsibility/goals-and-strategy/stakeholders-relations/	
REPORTING PRACTICE			
102-45	Entities included in the consolidated financial statements	p. 139–140	
102-46	Defining report content and topic boundaries	p. 8–10 lanxess.com/en/corporate/corporate-responsibility/goals-and-strategy/material-topics/	
102-47	List of material topics	p. 10, 192	
102-48	Restatements of information	p. 191	

GRI Standard		Location	Comments and Online Annexes	UNGC
102-49	Changes in reporting	p. 135–138, 191		
102-50	Reporting period	p. 191		
102-51	Date of most recent report	p. 191		
102-52	Reporting cycle	p. 191		
102-53	Contact point for questions regarding the report	Masthead		
102-54	Claims of reporting in accordance with the GRI Standards	p. 191		
102-55	GRI content index	p. 197–201		
102-56	External assurance	p. 193–196		
GRI 103: Management Approach 2016				
103-1	Explanation of the material topic and its boundary	p. 192		
103-2	The management approach and its components	p. 192		
103-3	Evaluation of the management approach	p. 192		
ECONOMIC				
GRI 201: Economic Performance 2016				
201-1	Direct economic value generated and distributed	p. 37, 85, 111, 165–166, 178–179		
201-3	Defined benefit plan obligations and other retirement plans	p. 150–156		
GRI 202: Market Presence 2016				
202-1	Wages		An employee's individual income is based on his or her responsibilities and performance. As well as collective agreements that are the basis for the compensation of non-managerial staff in Germany and many other countries, legal requirements such as minimum wage levels are also important in ensuring fair compensation. In Germany, for example, we obtain temporary employees only from agencies that are covered by the collective agreement for temporary employment. In addition, the chemical industry pays industry-specific supplements.	
202-2	Local hiring	p. 22		
GRI 203: Indirect Economic Impacts 2016				
203-1	Infrastructure investments and services supported	p. 37–38	lanxess.com/en/corporate/corporate-responsibility/safe-and-sustainable-sites/corporate-citizenship/	
GRI 204: Procurement Impacts 2016				
204-1	Proportion of spending on local suppliers	p. 65		
GRI 205: Anti-corruption 2016				
205-1	Operations assessed for risks related to corruption	p. 18		10
205-2	Communication and training about anti-corruption policies and procedures	p. 18		10
205-3	Confirmed incidents of corruption and actions taken	p. 18		10
GRI 206: Anti-competitive Behavior 2016				
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices		The company was not involved in any legal actions regarding anticompetitive behavior or violations of antitrust law in 2018.	
ENVIRONMENTAL				
GRI 301: Materials 2016				
301-1	Materials used by weight or volume	p. 30–31, 65		7, 8

GRI Standard	Location	Comments and Online Annexes	UNGC
GRI 302: Energy 2016			
302-1	Energy consumption within the organization	p. 35–36	7,8
302-2	Energy consumption outside the organization	p. 35–36	7, 8
302-3	Energy intensity	p. 40–41	8
302-4	Reduction of energy consumption	p. 40–41	7, 8, 9
302-5	Reductions in energy requirements of products and services	p. 40–41, 43–44 webmagazine.lanxess.com/part-2-the-mobility-of-tomorrow-progress-and-climate-protection/	
GRI 303: Water 2016			
303-1	Total water withdrawal	p. 33, 35–36	7, 8
GRI 305: Emissions 2016			
305-1	Direct (Scope 1) GHG emissions	p. 35–36	7, 8
305-2	Energy indirect (Scope 2) GHG emissions	p. 35–36	7, 8
305-3	Other indirect (Scope 3) GHG emissions	p. 39	7, 8
305-4	Greenhouse gas emissions intensity	p. 39	8
305-5	Reduction of GHG emissions	p. 38–39 lanxess.com/en/corporate/corporate-responsibility/business-driven-innovation/products-and-processes/	8, 9
305-6	Emissions of ozone-depleting substances	p. 35–36	7
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	p. 35–36, 40	7, 8
GRI 306: Effluents and waste 2016			
306-1	Water discharge by quality and destination	p. 33, 35–36	7, 8
306-2	Waste by type and disposal method	p. 34, 35–36	7, 8
306-3	Significant spills	Of 16 relevant incidents, 11 occurred in facilities acquired in 2017. 5 cases involved the emission of SO ₂ . One relevant facility safety incident occurred at ARLANXEO: At the Cabo site in Brazil, a pump caught fire because the wrong seal type was used. This incident was not environmentally relevant.	7, 8
GRI 307: Environmental Compliance 2016			
307-1	Non-compliance with environmental laws and regulations	Should material cases occur, these would have to be reported in the audited financial statements.	7, 8
GRI 308: Supplier Environmental Assessment 2016			
308-1	New suppliers that were screened using environmental criteria	p. 30–31	8
308-2	Negative environmental impacts in the supply chain and actions taken	p. 30–31	8
SOCIAL			
GRI 401: Employment 2016			
401-1	New employee hires and employee turnover	S. 20, 23	6
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	S. 25–28	6
401-3	Parental leave	S. 27	
GRI 402: Labor/management relations 2016			
402-1	Minimum notice periods regarding operational changes	In accordance with the German Works Constitution Act, LANXESS is obliged to inform the Works Council fully and in good time of any planned operational changes that could result in material disadvantage to all or substantial parts of the workforce. The Economics Committee is also informed on a regular basis about the company's economic affairs. We fully comply with our legal obligations with respect to the responsible bodies. Similar requirements applicable in other countries are always complied with.	3

GRI Standard	Location	Comments and Online Annexes	UNGC
GRI 403: Occupational health and safety 2016			
403-1	Workers representation in formal joint management worker health and safety committees	Protecting the health and safety of our employees is a regular aspect of the dialog between employee and employer representatives in all countries where collective agreements apply. In Germany, and going above and beyond legal requirements, agreements exist with employee representatives as well as for occupational health management and company integration management. The operational teams are managed by steering committees made up equally of employer and employee representatives.	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	p. 28–29, 35–36	
403-4	Health and safety topics covered in formal agreements with trade unions	Protecting the health and safety of our employees is a regular aspect of the dialog between employee and employer representatives in all countries where collective agreements apply. In Germany, and going above and beyond legal requirements, agreements exist with employee representatives as well as for occupational health management and company integration management. The operational teams are managed by steering committees made up equally of employer and employee representatives.	
GRI 404: Training and education 2016			
404-1	(Vocational) training	p. 20–22	6
404-2	Programs for skills management and lifelong learning	p. 20–22, 24, 26, 30	
404-3	Regular performance and career development reviews	p. 20–22	6
GRI 405: Diversity and Equal Opportunity 2016			
405-1	Diversity of governance bodies and employees	p. 24–26, 53–55	6
405-2	Ratio of basic salary and remuneration of women to men	For non-managerial employees, collective agreements mean there are no notable differences between the salaries of female and male employees. Managers' compensation is based on their responsibilities and performance and also on aspects such as industry and managerial experience.	6
GRI 406: Non-discrimination 2016			
406-1	Incidents of discrimination and corrective actions taken	p. 17	6
GRI 407: Freedom of Association and Collective Bargaining 2016			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	p. 30	3
GRI 408: Child Labor 2016			
408-1	Operations and suppliers at significant risk for incidents of child labor	p. 15–17	1, 2, 5
GRI 409: Forced or Compulsory Labor 2016			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	p. 15–17	1, 2, 4
GRI 410: Security Practices 2016			
410-1	Security personnel trained in human rights policies or procedures	LANXESS does not employ its own security personnel at its sites but procures security services from specialized external providers. They, like all our suppliers, are subject to our Supplier Code of Conduct, which also covers human rights. In addition, professional security providers contracted by LANXESS are subject to the relevant security legislation in each country. In South Africa, for example, security personnel undergo regular training, which is documented and complies with the requirements of the Private Security Industry Regulatory Authority of South Africa (PSIRA).	1, 2

GRI Standard	Location	Comments and Online Annexes	UNGC
GRI 411: Rights of Indigenous Peoples 2016			
411-1	Incidents of violations involving rights of indigenous peoples	Our employees and external third parties can use the Integrity Line to report grievances concerning the violation of indigenous rights. In fiscal year 2018, we received no reports or other indications of cases involving the violation of indigenous rights.	1, 2
GRI 412: Human Rights Assessment 2016			
412-1	Operations that have been subject to human rights reviews or impact assessments	p. 17	1, 2
412-2	Employee training on human rights policies or procedures	p. 17	1, 2
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	p. 17	1, 2
GRI 413: Local Communities 2016			
413-1	Operations with local community engagement, impact assessments, and development programs	p. 37–38, 43 lanxess.com/en/corporate/corporate-responsibility/safe-and-sustainable-sites/corporate-citizenship/ lanxess.com/en/corporate/corporate-responsibility/societal-added-value/	
413-2	Operations with significant potential or actual negative impacts on local communities	p. 8, 31–36, 41	
GRI 414: Supplier Social Assessment 2016			
414-1	New suppliers that were screened using social criteria	p. 30–31	1, 2
414-2	Negative social impacts in the supply chain and actions taken	p. 30–31	1, 2
GRI 415: Public Policy 2016			
415-1	Political contributions	p. 18 lanxess.com/en/corporate/corporate-responsibility/goals-and-strategy/stakeholders-relations/dialogue-with-political-target-groups/	10
GRI 416: Customer Health and Safety 2016			
416-1	Assessment of the health and safety impacts of product and service categories	p. 30–31, 42–43 lanxess.com/en/corporate/corporate-responsibility/societal-added-value/product-portfolio-assessment/	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Our employees and external third parties can use the Integrity Line to report grievances concerning non-compliance with regulations concerning health and safety. We received no indications of corresponding non-compliance for fiscal year 2018.	
GRI 417: Marketing and Labeling 2016			
417-1	Requirements for product and service information and labeling	p. 42	
417-2	Incidents of non-compliance concerning product and service information and labeling	Our employees and external third parties can use the Integrity Line to report grievances concerning non-compliance with regulations and voluntary concerning product and service information. We received no indications of corresponding non-compliance for fiscal year 2018.	
GRI 418: Customer Privacy 2016			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Our employees and external third parties can use the Integrity Line to report complaints regarding customer data privacy. In fiscal year 2018, we received no reports or other indications of complaints regarding breaches of customer privacy and losses of customer data.	
GRI 419: Socioeconomic Compliance 2016			
419-1	Non-compliance with laws and regulations in the social and economic area	Should material cases occur, these would have to be reported in the audited financial statements.	

Glossary

INDUSTRY-SPECIFIC TERMS

Additives

Additives are substances that are added in small quantities to products in order to improve or actually create certain properties. The positive effects aimed for may relate to manufacturing, storage and processing, or they may be product characteristics that exist during and after a product's service life. In contrast to fillers, additives are very highly dispersed in the material and almost always comprise just a few percent of the overall volume.

CLP and GHS

CLP is the abbreviation for classification, labeling and packaging. The E.U. CLP Regulation contains provisions for the classification, labeling and packaging of substances and mixtures.

It is based on the Globally Harmonized System of Classification and Labeling of Chemicals – or GHS for short – which ensures that hazards are labeled in the same way all over the world. The use of classification criteria and labeling elements that have been agreed upon internationally is aimed at making things easier for distributors and at protecting people and the environment worldwide from the hazards that may be caused by chemicals.

Compounding facility

A facility for processing and finishing engineering plastics to enhance their functional properties.

COSO

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a voluntary private-sector organization that has compiled and published guidelines on enterprise risk management in an internationally recognized framework.

ISO 14001

International standard that supports organizations in introducing an environmental policy, formulating environmental targets and implementing these with the aid of an environmental management system.

ISO 50001

International standard that defines requirements for systematic energy management to help organizations reduce energy costs, greenhouse gas emissions and other environmental impacts.

ISO 9001

International standard that defines minimum requirements for quality management systems.

Networked site

Production site where many different production processes and value chains are integrated as a highly efficient network; for example, the by-products from one production plant are used by another facility at the same site to manufacture another product. The network principle results in lower energy and raw material consumption while ensuring high production output. It is thus resource-friendly and reduces logistics costs at the same time.

OSHA

Occupational Safety and Health Administration: an agency of the United States Department of Labor that is authorized to adopt occupational safety standards. OSHA also enforces these standards with the aim of reducing the number of work-related accidents and their consequences.

REACH

Abbreviation for the Registration, Evaluation, Authorization and Restriction of Chemicals; the E.U. REACH Regulation stipulates the registration, assessment and approval of chemicals before marketing. It imposes a duty on manufacturers and importers to determine the hazardous characteristics of substances and estimate their impact on health and the environment.

Synthesis

In chemistry, a synthesis is a process used to manufacture a compound from several elements or a complex new substance from a number of simple compounds. A synthesis therefore goes beyond the purely physical mixing of two or more substances. A synthesized compound cannot be split back into its base products by physical means.

VOC emissions

Volatile organic compounds is the collective term for organic carbon compounds that evaporate easily or already become gaseous at low temperatures.

FINANCIAL GLOSSARY

Capital employed

This is defined as total assets less deferred tax assets and interest-free liabilities.

Cash flow

Inflows and outflows of cash and cash equivalents.

Corporate governance

Responsible corporate management and oversight aligned with long-term value creation; it comprises the observance of laws, regulations, recognized standards and recommendations as well as the implementation and application of company guidelines and management and control structures.

Deferred taxes

Tax expense or tax income that is likely to arise in the future from temporary differences between the carrying amount used in the annual financial statements and the taxable value of assets and liabilities and tax income that is likely to arise in the future from unused loss carryforwards or tax credits.

Due diligence

The careful investigation and analysis of a company, particularly in respect of its economic, legal, tax and financial condition and its performance in the areas of technology and the environment; it is undertaken especially by potential purchasers involved in acquisition projects.

EBIT

Earnings before interest and taxes: the operating result before deduction of interest and income taxes.

EBITDA

Earnings before interest, taxes, depreciation and amortization: the operating result before deduction of interest and income taxes plus depreciation and impairment losses on property, plant and equipment and amortization and impairment losses on intangible assets.

EMEA

Europe, Middle East, Africa region.

Equity method

Accounting method that sets the interests in affiliated companies against the acquisition costs, with the result that any changes in the stakeholder's interest lead to an adjustment in the net assets of the affiliated company.

Financial covenants

Clauses or (side) agreements in loan agreements and term sheets; these are contractually binding promises by the borrower or the obligor during the term of the loan agreement, for example that net financial liabilities will not exceed a defined multiple of an earnings indicator such as EBITDA pre exceptionals.

GDP

Gross domestic product: the sum of all goods and services produced by an economy over the period of one year and destined for consumption.

Goodwill

Intangible assets from the acquisition of a company; it is measured as the excess of the cost of acquisition over the fair value of the net assets acquired.

Hedging

An investment position intended to limit or offset certain clearly identified risks such as exchange rate fluctuations or interest rate changes.

Hybrid bond

A hybrid bond is a corporate bond with a very long or unlimited term. The issuing company may terminate a bond after a previously defined date. Moreover, the interest payments agreed upon may be canceled or suspended under certain conditions.

Hybrid bonds are subordinated financial instruments. In the event of an insolvency or liquidation, they will only be serviced after the company has fulfilled all other obligations toward third parties. This higher risk borne by investors is compensated by higher interest rates compared with conventional corporate bonds. Depending on the bond conditions, at least part of a hybrid bond is treated as equity by rating agencies and banks.

IAS/IFRS

International Accounting Standards/International Financial Reporting Standards; these are uniform international accounting regulations issued by the International Accounting Standards Board with the aim of ensuring the global comparability of financial statements and the publication of information of relevance to decisions.

Net financial liabilities

Calculated as the sum of current and non-current financial liabilities (adjusted for liabilities for accrued interest) less cash, cash equivalents and near-cash assets.

Purchase price allocation

Distribution of the cost of an acquisition to the acquired assets, liabilities and contingent liabilities.

Rating

Assessment of a debtor's credit standing; ratings are issued by, for example, the world's leading rating agencies such as Standard & Poor's, Moody's Investors Service and Fitch Ratings, but also by banks applying their own criteria.

ROCE

Return on capital employed: ROCE is the ratio of EBIT pre exceptional to capital employed and a measure of profitability.

USMCA

United States Mexico Canada Agreement. Trade agreement concluded in November 2018 between the U.S., Mexico and Canada, which replaces the North American Free Trade Agreement NAFTA that had been in force since 1994.

We Support



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sustainability-indices.com



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FINANCIAL CALENDAR 2019

JAN

FEB

MAR

APR

MAY

JUN

MAY 14

Quarterly Statement
Q1 2019
Conference Call

MAY 23

Annual Stockholders' Meeting
Cologne

AUGUST 2

Half-Year Financial Report
H1 2019
Conference Call

JUL

AUG

SEP

OCT

NOV

DEZ

NOVEMBER 13

Quarterly Statement
Q3 2019
Conference Call

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Consultancy:
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Design and Production:
Kirchhoff Consult AG, Hamburg, Germany

English edition:
EVS Translations GmbH, Offenbach, Germany

Printed by:
Kunst- und Werbedruck, Bad Oeynhausen, Germany

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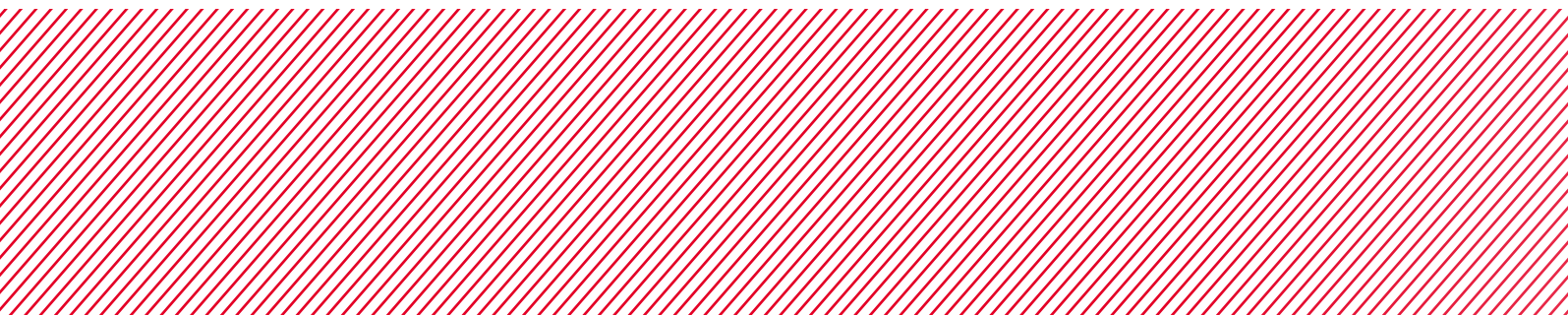
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Date of publication:
March 14, 2019

This annual report contains forward-looking statements based on current assumptions and forecasts made by LANXESS AG management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual

future results, financial situation, development or performance of the company and the estimates given here. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.



PUBLISHER

LANXESS AG

50569 Cologne

Germany

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