

Combined Management Report of the Covestro Group and Covestro AG

Covestro Group at a Glance	50
1. Group Structure and Business Model	50
2. Strategy and Management	55
3. Innovation	60
4. Employees	65
Conducting business responsibly	69
5. Company-wide Sustainability Management	69
6. Sustainability in Supplier Management	74
7. Integrated Management System for Occupational Health, Safety, Environmental Protection and Quality	76
8. Safety	77
9. Environmental Protection	79
10. Product stewardship	82
Report on Economic Position	85
11. Economic Environment	85
12. Business Development Covestro Group	86
13. Business Development by Segment	89
14. Results of Operations	95
15. Financial Position	96
16. Net Assets	98
17. Alternative Performance Measures	99
18. Results of Operations, Financial Position and Net Assets of Covestro AG	103
Report on Future Perspectives and on Opportunities and Risks	106
19. Economic Outlook	106
20. Forecast for Key Data	107
21. Opportunities and Risks Report	108
Corporate Governance Report	117
22. Declaration on Corporate Governance	117
23. Takeover-relevant Information	123
24. Compliance	129
25. Compensation Report	131

The combined management report for 2018 pertains to both the Covestro Group and Covestro AG. The presentation of the business performance as well as the position of and the forecast for key data pertain to the Covestro Group, except where otherwise indicated. Information that applies to Covestro AG only is identified accordingly. In the Report on Economic Position, the information disclosed pursuant to the German Commercial Code (HGB) with regard to Covestro AG is provided in a separate section. In addition, the nonfinancial statement pursuant to Section 315b HGB is an integrated part of the Group Management Report. A nonfinancial statement for Covestro AG does not have to be provided at this time.

COMBINED MANAGEMENT REPORT

Covestro Group at a Glance

1. Group Structure and Business Model

Organization



See "Scope of consolidation and investments" section in note 5.1 of the Notes to the Consolidated Financial Statements

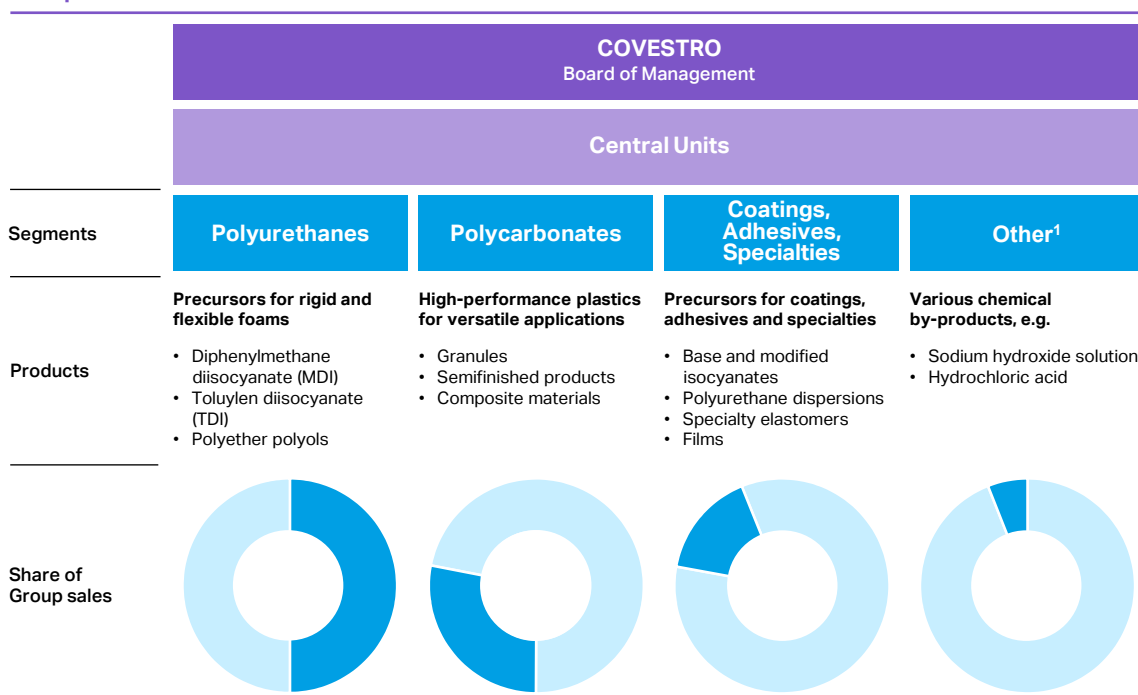


See section 22 "Declaration on Corporate Governance"

Covestro is one of the leading global suppliers of high-tech polymer materials and application solutions developed for these materials. Covestro AG, the parent company of the Covestro Group, is headquartered in Leverkusen (Germany). It is listed on the stock exchange in Germany and has been included in the leading German index DAX since March 19, 2018. In line with its product portfolio, Covestro is divided into three operational reporting segments: Polyurethanes (PUR), Polycarbonates (PCS), and Coatings, Adhesives, Specialties (CAS). The administrative functions are consolidated within the central units. As of December 31, 2018, the Covestro Group comprised 49 consolidated companies in 24 countries in addition to Covestro AG and employed around 16,770 employees².

The Board of Management of Covestro AG manages the operational businesses and defines and monitors corporate targets. Dr. Markus Steilemann became the Chief Executive Officer of Covestro in June 2018, succeeding Patrick Thomas in this position. In addition to this role, he remains responsible for innovation, marketing, and sales. Dr. Thomas Toepfer has been Chief Financial Officer since April 2018. Chief Technology Officer Dr. Klaus Schäfer is responsible for production and technology on the Board of Management and for overseeing all production sites. He also carried out the role of Labor Director through December 31, 2018. Dr. Thomas Toepfer assumed the role of Labor Director as of January 1, 2019. The twelve-member Supervisory Board advises and oversees the Board of Management. In accordance with the German Codetermination Act, half the members of the Supervisory Board are elected by the stockholders and half by the company's employees. Dr. Richard Pott holds the office of Chair of the Supervisory Board.

Group Structure



¹ Business activities that cannot be assigned to the Polyurethanes, Polycarbonates, or Coatings, Adhesives, Specialties segments. These include, for instance, the marketing of by-products of chlorine production and use.

² The number of employees on either permanent or temporary contracts refers to full-time equivalents (FTE). Part-time employees are included on a pro-rated basis in line with their contractual working hours.

Business model

We produce precursors for polyurethane foams and the high-performance plastic polycarbonate as well as precursors for coatings, adhesives, sealants and specialty products, including specialty films. Other precursors such as chlorine and by-products like styrene are also part of Covestro's range of products.

The company's materials are used in many areas of modern life – the array of products ranges from insulation for refrigerators and entire buildings through laptop and cell phone cases to scratch-resistant and fast-drying vehicle coatings and film coverings for personal identification cards. Covestro therefore covers a wide variety of sectors. The company's main customers are from the automotive, construction, wood processing and furniture industries, and from the electrical and electronics industries. The products are also used in sectors such as sports and leisure, cosmetics and health, as well as in the chemical industry itself.

Going forward, Covestro aims to position the company even more broadly, thus further reducing the product range's exposure to cyclical fluctuations. Covestro's focus in this connection is on innovation and sustainability. To this end, we closely monitor the developments in our sales and consumer markets and support the growth of our customers. Together with customers as well as with business and scientific partners, Covestro works continuously to further advance products, technologies and application solutions.

Global megatrends play a considerable role in this process: progressing climate change, increasing mobility, a growing global population and rising urbanization are changing the lives of billions of people. Consequently, the polymer industry will have to change. Businesses such as Covestro are facing new tasks and require innovative solutions to handle them. The focus is primarily on the topics of "Renewable energy," "Energy-efficient transportation," and "Sustainable and affordable living."

Covestro's aim is to pave the way and support these trends with its materials. By replacing traditional materials with durable, light, environmentally-compatible and cost-effective materials, Covestro contributes to lightweight construction in the automotive industry, increases the energy efficiency of living spaces through the use of new insulating materials and improves the shelf-life of food through improvements in insulation along the entire refrigeration chain.

Segments

Polyurethanes

In the PUR segment, Covestro primarily develops, produces and markets chemical precursors for the manufacture of polyurethane foams. These precursors are toluene diisocyanate (TDI), diphenylmethane diisocyanate (MDI) and polyether polyols. Flexible polyurethane foam is used in products such as mattresses, upholstered furniture and car seats, thus making day-to-day life more comfortable. Rigid polyurethane foam is used mainly to efficiently insulate buildings and refrigeration appliances. In doing so, it contributes to reducing energy consumption. In 2018 Covestro was among the top suppliers in the global polyurethane industry in 2018.

Polycarbonates

In 2018, Covestro was also one of the leading global suppliers of polycarbonates. In the PCS segment, Covestro not only produces and distributes this high-performance plastic but also works to continually improve it. Polycarbonates are extraordinarily light, transparent, unbreakable and moldable. Available as granules, composite materials and semifinished products, manufacturers use this versatile material in a wide variety of products such as vehicles (e.g. passenger compartment and vehicle lighting), buildings (e.g. roof structures), electrical and electronic devices (e.g. cords and laptop cases), and for medical equipment.

Coatings, Adhesives, Specialties

In the CAS segment, Covestro was once again among the leading global suppliers in 2018. The focus hereby is on both aliphatic and aromatic isocyanates and their derivatives as well as polyurethane dispersions. These are required for the production of coatings, adhesives sealants, and specialty products. The latter comprise specialty elastomers, high-quality films and precursors for cosmetics, textiles and medical products. These materials serve to protect, bond, seal or functionalize a wide variety of surfaces. The main areas of application are automotive and transportation, infrastructure and construction, wood processing and furniture.

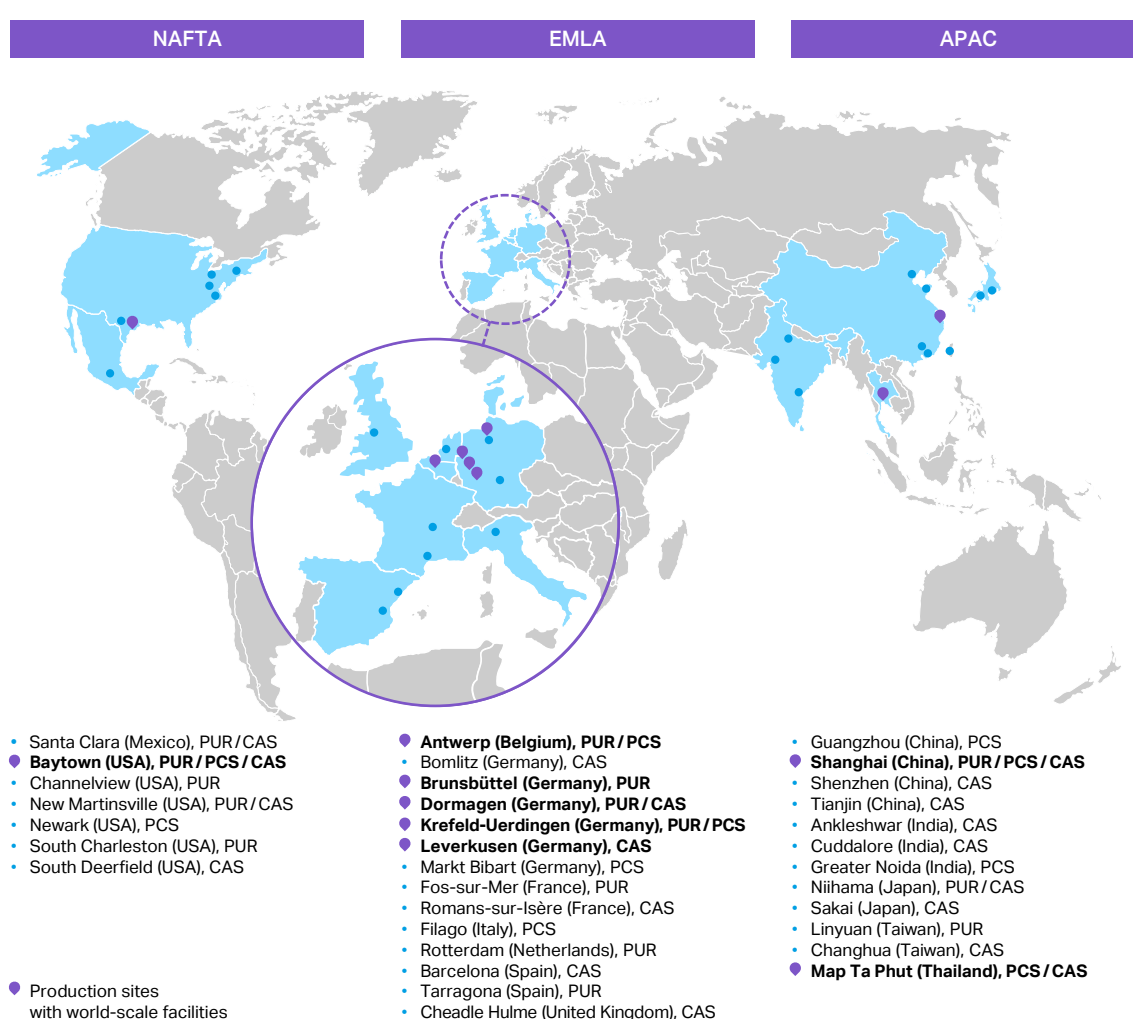
Production sites

Covestro operates production facilities throughout the world for the different product groups. In terms of our production processes, the plant structure is characterized by a backward integration for key raw materials, such as chlorine and propylene oxide, thus ensuring optimal value creation. In addition, Covestro has installed comprehensive measures to secure and steadily improve performance in the fields of safety, costs and plant availability.

Covestro has 33 production sites located in Europe, America and Asia, eight of which have world-scale facilities. The latter are large-capacity production facilities that serve in particular to ensure that customers around the world are supplied reliably and efficiently. We operate additional plants in selected countries to manufacture polyurethane precursors and products of the Coatings, Adhesives, Specialties segment. Moreover, we operate production plants in selected countries where we compound polycarbonate resins to meet specific customer requirements.

The following table shows Covestro's geographical presence and the 33 production sites.

Covestro Production Sites¹



¹ Excluding sites of PCS sheet business and PUR system business



See note 14
"Property, Plant and
Equipment" in the
Notes to the Consol-
idated Financial
Statements

We invest continuously in our global production network in order to maintain our production facilities and their infrastructure, to optimize manufacturing processes and to expand capacities in line with market developments. To do so, Covestro relies on advanced and environmentally friendly production processes and continually optimizes its technologies. As part of the Group's strategy, Covestro conducts a program under the name OSI2020 for the digitalization of technical, operational and maintenance activities.

Procurement market

Procurement provides all areas of the company around the world with goods and services in a timely manner and at suitable market conditions. In doing so, it ensures the adherence of our Group's high quality standards. Furthermore, Procurement makes sure that Covestro's ethical and ecological principles are upheld. The principles of our procurement policy are set forth in a directive that is binding on all employees throughout the Covestro Group.

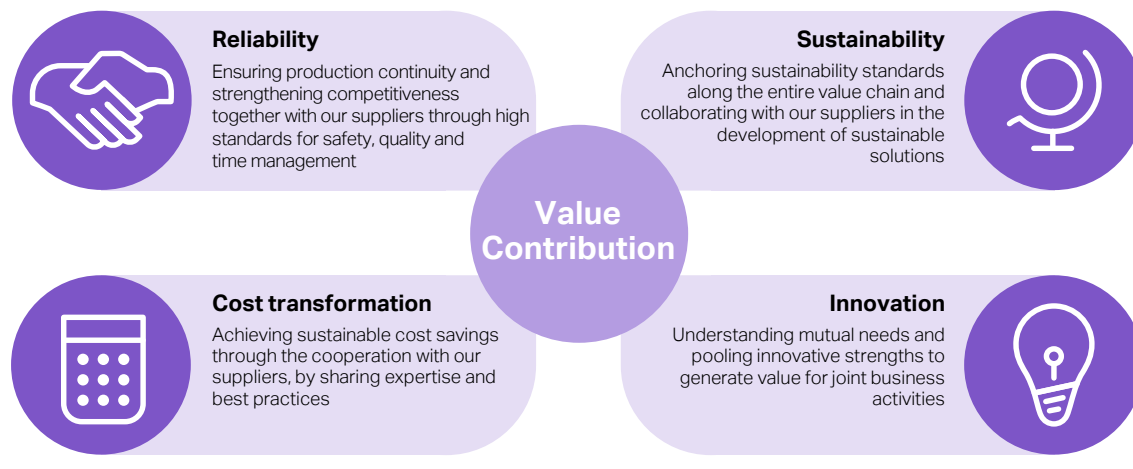
In 2018, goods and services were procured from some 15,500 suppliers (previous year: some 15,400) in 71 countries (previous year: 72) for approximately €10.1 billion (previous year: €9.3 billion). Distribution of purchasing volumes was balanced across the regions.

Procurement at Covestro is centrally steered and managed by the Procurement unit. The objective is to generate a competitive advantage for Covestro and make a decisive contribution to the overall value. In doing so, Covestro is guided by four strategic principles: reliability, sustainability, cost transformation and innovation.



See section 6
"Sustainability in
Supplier Management"

Strategic principles in Procurement



The main precursors for our products are petrochemical substances such as benzene, toluene, propylene/propylene oxide, phenol and acetone – which collectively account for some 40% of our procurement spend. In addition, the operation of our production facilities requires large amounts of energy, that we primarily procure from external sources and in the form of electricity and steam. We endeavor to procure critical raw materials from within the Group or through joint ventures in order to reduce the dependency on external supply sources. To name just two examples: Covestro produces chlorine in-house and procures propylene oxide through a joint venture. We regularly monitor the sustainability and quality of our suppliers and ensure that they comply with internal and external standards.

Distribution and logistics

We are committed to supplying our customers reliably. We understand this to mean that the right product arrives at the right place at the right time and in the agreed upon quality without requiring subsequent improvements. To achieve this goal, our distribution maintains close contact with our customers and supports the operational business. In addition, it advises our customers on how to make the best use of our range of e-commerce services such as the web shop and online trading platform, serves as a point of contact for complaints and endeavors to acquire follow-up orders. In this way, distribution is a key contributor to the satisfaction of our customers and their loyalty to Covestro. Distribution is also responsible for new business.

Covestro relies on a regional distribution and marketing structure for its distribution activities. Each operational reporting segment distributes and markets its own products through its own distribution organization and through trading houses and local distributors. Major customers with global operations are an exception to this. These are serviced directly by our key account managers. Chemical by-products such as sodium hydroxide solution are marketed primarily outside of the operational reporting segments. Certain by-products such as styrene are also marketed within the operational reporting segments.

Three regional Supply Chain Centers for the EMLA, NAFTA and APAC regions provide assistance to the offices in supporting our customers and processing customer orders – from order acceptance through shipment planning, to invoicing and complaint acceptance. This organization enables us to process orders particularly smoothly and swiftly. We make use of channels such as e-commerce platforms for handling orders. Our customers can place orders and check the status of their orders at any time through the Order@Covestro online shop.

The transportation of our products to customers is handled by logistics service providers that are selected and evaluated according to stringent safety, environmental, and quality criteria. Alongside the protection of people and the environment, delivery reliability is particularly important. The preferred mode of transportation is rail or inter-modal – in other words using a combination of different modes of transportation. When selecting the mode of transportation, we also consider resource efficiency and seek to reduce associated CO₂ emissions. Customers are supplied from close-to-production warehouses, wherever permitted by transportation times and delivery reliability. In the case of longer distances and according to the reliability of the mode of transport, goods are temporarily stored in regional distribution centers and then dispatched with shorter delivery times.

In order to ensure a high level of customer satisfaction, our foremost quality target is avoiding errors in all of our processes. Customer satisfaction is regularly gauged and analyzed worldwide in a global management system. In doing so, we take into account customer satisfaction analyses and supplier assessments. Furthermore, we request feedback from our customers from which we derive corrective and preventive measures for the purpose of further increasing quality and customer satisfaction and lowering the error rate and the incidence of complaints. In 2017, Covestro recorded 6.88 complaints for every 1,000 deliveries. In the year under review, that number fell to only 6.72 complaints per 1,000 deliveries.

2. Strategy and Management

Principles guiding our actions

Vision and mission

Climate change, increasing mobility, a growing global population, and rising urbanization: global megatrends such as these represent tremendous challenges. Covestro is facing these challenges, uniting business success with sustainability. The goal is to realize Covestro's vision: to make the world a brighter place.

We aim to promote innovation and growth with profitable products and technologies that benefit society and reduce the impact on the environment. This is our mission. In pursuing it, we rely on technologies that reduce energy consumption and emissions in our production processes. And we are replacing traditional materials such as glass and metal, which are manufactured less sustainably or have a less sustainable life cycle, with products and plastics we develop. We accomplish this by thinking ahead and, instead of fossil resources, developing alternative building blocks for our chemicals that are either omnipresent or far more sustainable.

Corporate values

Covestro is proud of its corporate values, summarized as C³: curious, courageous and colorful. These values guide all of the Group's employees and are reflected in their daily thoughts and actions.

Curious

We are proud of our past, but we are not defined by it. We never settle for the status quo and think ahead. Our curiosity drives us to listen to our customers and suppliers and respond with creative and unexpected solutions. We are responsive to what is happening around us and believe that speed and flexibility will give us an advantage over our competitors. We are open to new ideas and hungry for progress.

Curiosity is the engine that drives us.

Courageous

We look toward the future and see opportunities where others see limitations. Where others ask "why?", we reply "why not?" Our courage permeates our entire business – from partnerships to business models. We stand on a foundation of knowledge and experience that allows us to act courageously and push the boundaries of innovation.

We have courage and integrity. We do what is right, not just what is convenient.

Colorful

In a corporate world that can often be dull, we make a difference. We are optimistic and resourceful and use every color in our palette to create solutions that inspire our customers and partners. We value strong customer, supplier and employee relationships and believe that humanity helps us to create a rainbow of opportunities. We are convinced that diversity and inclusiveness not only promote innovation, sustainability and employee engagement within our workforce, but also improve decision-making processes and contribute to our success.

We believe diversity drives creativity and multiple viewpoints allow us to solve problems in innovative ways.

Corporate culture and leadership profile

The corporate culture is a key strategic pillar for Covestro and is based on the company's values and vision. Moreover, a culture firmly rooted in the company enables the implementation of the strategy, therefore ensuring the company's long-term success. We live in a culture that facilitates fast decisions, innovative approaches and close proximity to the customer. At the same time, diversity is at the heart of our corporate culture. Diversity is our strength – inclusion is our obligation.

This culture is influenced by the employees and in particular by the managers who are responsible for setting a good example through their conduct and embodying the culture. The expectations for this transformational leadership are described as follows: we want value-based leadership motivated by personal mindset as well as corporate values. Conducive leadership helps to improve employees' ability to maximize their full potential. It also ensures that the employees possess the necessary decision-making authority and have access to optimal work and safety conditions.



For more information, see section 2, sub-section "Company policies and voluntary commitments" in the GRI Supplement

Sustainability approach

In keeping with our vision, we want to make an equal contribution to increasing the overall value at the economic, environmental and social levels. Our decisions and our actions always take into account the three Ps of sustainability – people, planet and profit. Our actions are oriented toward a positive impact on at least two of the three Ps, while at the same time ensuring no harm is done to any of them. We take a holistic view of every decision and every action as well as their consequences – which, all in all, reflects an integral part of the Group's strategy and corporate governance.

Strategic goals and activities

Group strategy

Our overarching goal is to make the world a brighter place, which is in keeping with our vision. To this end, the company provides innovative products, technologies and application solutions. In particular, our activities are aligned with the UN Sustainable Development Goals (SDGs) in support of global progress at the ecological, economic and social levels. Experts agree that these goals have significant economic potential and could lead to profound changes and above-average growth in the industrial sectors important to Covestro.

Our current strategy was developed with a view primarily to taking full advantage of business opportunities resulting from global megatrends and sustainability issues. This is all part of our efforts to continue growing profitably in the years to come and to exceed global economic growth rates overall. We intend to achieve this using six strategic pillars.

Strategic pillars



Investing to strengthen the core business

Covestro expects to see strong growth in its markets and plans to successfully leverage this development through optimal participation. We will therefore significantly expand production capacities in our core lines of business. To this end, we plan to invest in excess of the depreciation level in the years to come. As a rule, this concerns production facilities across all product groups and at all of the major sites. We are adding skilled staff and resources in order to ensure optimal technical implementation of the corresponding projects.

Innovating to promote greater sustainability

Sustainability is a central concern, and it shapes our activities all along the entire value chain. We consider sustainability to represent an economic opportunity benefiting all interest groups. In the years to come, we therefore intend to focus our research and development even more on sustainability issues such as electromobility as well as energy- and cost-efficient construction. Accordingly, we plan to invest even more heavily in research and development projects oriented toward the UN Sustainable Development Goals.

Growth options within the circular economy are one key element. This pertains both to our existing business with polycarbonate recyclates as well as to the area of polyurethanes. Here, we closely analyzed products that are at the end of their life cycle as the basis for future raw materials. Over the years to come, we will conduct the corresponding economic and environmental analyses of both recycling technologies and new product developments. This underscores our commitment to creating sustainable solutions for meeting the challenges of the future.

Acquiring to create value and accelerate growth

We are actively seeking acquisition options in order to expand our portfolio. They represent another way to participate in the rapid market growth that we anticipate in the years to come stemming from issues related to the future and sustainability. We carefully evaluate potential acquisitions to determine whether they – with regard to our stockholders – increase Covestro's enterprise value and the impact they may have on other stakeholders. Furthermore, takeover candidates must also suit our existing lines of business, our entire company and our corporate culture.



For more information, see section 2, subsection "Covestro and the UN Sustainable Development Goals" in the GRI Supplement

Becoming more efficient and effective

To increase effectiveness and efficiency throughout the entire company, Covestro rolled out a Group-wide performance program entitled Perspective in 2018. The program's primary objectives are to further refine work methods and cross-divisional processes, in addition to continually improving our competitive and cost position. These measures are expected to generate a long-term cost savings of approximately €350 million by 2021 at the latest, which in turn will be used to limit an increase in operating costs.

Drive digitalization

With an extensive program, we aim to increasingly take advantage of the opportunities arising from digitalization. Our primary aim is to set new standards for how we work with our customers. At the same time, all employees should benefit from digitalization. To achieve this goal, Covestro anchors digital technologies and work activities in production, along the supply chain, in research and development, in the administrative functions and at all points of contact with the customer. In 2018, we continued to work on and test a digital trading platform where customers will be able to purchase standard products from Covestro and also, where applicable, from other providers. Selected business entities have partially or entirely shifted their sales to the platform, which is now integrated into the SAP processing system, and have managed to reach the expected volumes and sales with products sold through fixed-price and auction-style listings. Meanwhile, we are cooperating closely with customers in other industries on a global scale. The goal of this collaboration is to implement the customers' requests with regard to the design and functionality of our digital sales channels. To this end, we opened a flagship store on the leading Chinese B2B platform 1688.com, which is owned by the Alibaba group.

Shaping our corporate culture

In the coming years we intend to improve our corporate culture in such a way that it bolsters our efforts to successfully address future trends and meet market requirements. The purpose here is to tap into our internal potential to the fullest extent and reach our business goals by more intensively promoting innovative ideas and short chains of command. Influenced by the responsible conduct of our managers, this culture provides our employees with the framework for their day-to-day activities and ensures that all employees share the same values. In this way, we aim to put every employee in a position to be able to achieve their best performance.

Strategy of the Individual Segments

Polyurethanes

In the years to come, demand for polyurethanes is expected to grow at an above-average rate compared to the global economy. In the Polyurethanes segment (PUR), we aim to provide the precursors needed to tap into this development.

The construction industry is one of the strategic industries where we are already strongly represented, and we intend to further expand this position. At the same time, we plan to take into account the growing need for sustainable solutions. In the future, our range of products should satisfy the demand for energy-efficient and affordable living spaces, mainly in the emerging economies. Considering the UN Sustainable Development Goals, there are some not yet fully developed segments that also warrant our attention – such as wind energy, where we provide materials for generation.

The PUR segment manufactures largely standardized products and the focus there is thus also on increasing efficiency through cost management as well as product and process innovations. In addition, we plan to develop new business models and improve existing ones. To achieve this, we are continually evaluating the potential for optimizing facilities and sites, in addition to opportunities to cooperate with other companies.

Polycarbonates

New forms of mobility call for innovative solutions. In the Polycarbonates segment (PCS), we are continually improving our product portfolio to take this trend into account. After all, materials with low weight, high-quality optics and transparency are particularly in demand in the automotive industry, such as in the promising electromobility market.

We intend to further increase the share of stable-margin business by focusing on the applications with more stringent requirements in the automotive as well as in the health and electronics/LED areas. Furthermore, through innovations such as fiber-reinforced composite materials, we plan to consolidate the technological position of the PCS segment and generate even more growth in differentiated markets.

With its distinct application expertise and global alignment, the PCS segment should grow at a higher rate than that of the global economy.



For more information, see section 3 in the GRI Supplement

Coatings, Adhesives, Specialties

Producing precursors for coatings and adhesives is our main area of business in the Coatings, Adhesives, Specialties (CAS) segment. In this segment, we supply coatings and adhesives producers whose products are used in the automotive, construction and furniture industries, among others. We aim to secure and further build on our strong position. Of particular importance in achieving this are consistent cooperation along the entire value chain, the efficient expansion of our capacities and product development close to the customers. Furthermore, we are working on products that are as environmentally friendly as possible, do not require the use of solvents and utilize alternative raw materials such as plant biomass.

As in past years, Covestro also plans to grow at an above-average rate in the area of specialties thanks to our superior technological knowledge and our expertise in chemical formulations. In this way we aim to achieve new and profitable application areas for our products.

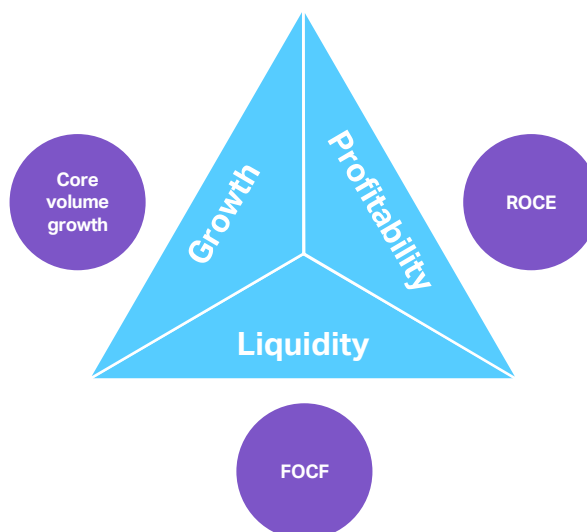
Management

Covestro's management system is aligned with long-term, profitable growth and continuous value creation. The Board of Management, the main decision-maker for the company, is responsible for our global business and approving the planning derived from our corporate strategy. In order to plan, manage, and monitor the development of our business, we use steering parameters which enable the company's business performance to be evaluated in a comprehensive and holistic manner. In addition, the Board of Management uses defined sustainability goals and selected nonfinancial performance indicators to govern the Group's sustainable orientation.

Business performance

The Covestro Group assesses business performance using key management indicators in the areas of growth, profitability and liquidity.

Covestro's Key Management Indicators



Growth of the Covestro Group is also measured in terms of the development of core volume growth³. In contrast to sales, this indicator is less influenced by raw material prices or currency effects.

The return on capital employed (ROCE) is the indicator used to assess the profitability of the Covestro Group, measuring the return the company achieves on the capital it uses. If ROCE exceeds the weighted average cost of capital (WACC), i.e. the minimum return expected by equity and debt capital providers, the company has created value.

Income after income taxes plus financial result, income tax expense, and depreciation and amortization (EBITDA) is the other indicator used to assess the operating profitability of Covestro and its reporting segments.

³ Core volume growth refers to the core products in the Polyurethanes, Polycarbonates and Coatings, Adhesives, Specialties segments. It is calculated as the percentage change in externally sold volumes in thousand metric tons compared with the prior year. Covestro also takes advantage of business opportunities outside its core business, for example the sale of precursors and by-products such as hydrochloric acid, sodium hydroxide solution and styrene. These transactions are not included in core volume growth.

The ability to generate a cash surplus is measured by the free operating cash flow (FOCF). FOCF is an indicator of our company's capacity to finance itself and of its liquidity, and corresponds to the operating cash flow less the cash outflows for additions to property, plant, equipment and intangible assets. A positive FOCF serves in particular to pay dividends and interest and to repay debt.

These management metrics also come into play in the Group's bonus system, which applies uniformly to all staff – from the Board of Management to employees under collective bargaining agreements. The three growth factors, profitability and liquidity each account for one-third of the final assessment and bonus calculation formula. As a result, all employees whose personal efforts contribute to Covestro's overall positive performance can share in the company's success.

Sustainability

Sustainability is a core element of our mission and an integral part of our strategy. We are committed to a conscientious approach in terms of how we handle both our environment and our surroundings. We fuse our economic growth with sustainability – by offering profitable products and technologies that are beneficial to society and reduce environmental impacts to push the boundaries of what is possible. Our commitment to sustainability is anchored in our vision.

We are driven by ambitious sustainability goals that we intend to achieve by 2025: we aim to reduce our specific emissions, i.e. the CO₂ equivalent emissions per metric ton of product manufactured, by 50% by 2025 compared with 2005 benchmarks, convey our sustainability requirements to all of our suppliers, align our research with the UN Sustainable Development Goals, improve the lives of ten million people in underserved markets and get the most out of carbon.

Our five sustainability goals are aligned with the UN sustainability goals and have different positive impacts on the implementation of all 17 sustainability goals. In our corporate principles, we commit to finding ways of contributing toward reaching the UN sustainability goals.

We regularly review the sustainability topics of importance to Covestro as part of a materiality analysis. During this process, we also incorporate input from external stakeholders and update our nonfinancial goals as well as our activities and programs accordingly.

We have adopted the principles of the United Nations Global Compact. The principles of the charter we signed are mandatory for all our employees throughout the world. We are also committed to the industry-led Responsible Care initiative and are involved in global sustainability forums such as the World Business Council for Sustainable Development (WBCSD). Furthermore, we expect our suppliers to adhere to the same high standards of sustainability that we hold ourselves to. We have developed a Code of Conduct that all suppliers must observe, regardless of where they are headquartered or where they do business. The principles set out in this code serve as drivers of innovation for us and support the implementation of our strategy.



See section 5
"Company-wide
Sustainability
Management"



For more information,
see section 5, sub-
section "Stakeholder
dialog" in the GRI
Supplement

3. Innovation

Innovation is a core element of Covestro's strategy and is part of our identity. This is why our understanding of innovation is broadly defined: we do not rely on traditional research and development alone, but rather also on the great potential for creativity throughout the entire company. Promoting innovation at Covestro should be something that involves every individual employee.

In order to maintain and reinforce our position in the global arena, we work tirelessly at all levels to develop new products, improve established ones and optimize manufacturing and processing procedures. Application areas, business models and business processes are also subject to ongoing review. We draw on decades of experience and demonstrable success in these endeavors.

Innovation management



For more information,
see section 3 in the
GRI Supplement

By managing innovation systematically throughout the Group, we ensure that our ongoing activities and our project pipeline always satisfy the needs of our customers, user industries and consumer markets. The Innovation Excellence department uses a wide variety of tools to achieve this. For example, we use a standardized method to assess every research and development project and incorporate the resulting findings into ongoing and future projects. The global, digital platform idea.lounge is available for discussing and processing ideas from all parts of the company. A new electronic platform for the operational suggestion system for managing and tracking improvement suggestions has been in development since 2018.

At "Innovation Celebrations," we recognize employee projects from around the world that reflect our broad understanding of innovation. The awards serve to recognize innovative ideas for products and applications, production and production processes, business models and commercialization, internal business processes, as well as patents and intellectual property.



For more information,
see section 2, sub-
section "Covestro
and the UN Sustainable
Development
Goals" in the GRI
Supplement

We seek to systematically align our research and development portfolio with the UN Sustainable Development Goals (SDGs) – in a manner consistent with our corporate vision. Our target for 2025 is to have 80% of project expenditures for research and development go toward areas that contribute to reaching these goals. The Group-wide evaluation process for existing and new innovation projects is currently being refined internally. One particular focus of our research activities is on the search for and development of solutions that help to address climate change.

In fiscal 2018, our research and development expenses amounted to €276 million after totaling €274 million in the previous year. As of December 31, 2018, Covestro had 1,123 employees⁴ working in research and development worldwide (previous year: 1,072), most of them at major innovation centers in Leverkusen (Germany), Pittsburgh (United States), and Shanghai (China). Its global presence allows Covestro to respond to regional market trends and customer requirements.

Use of digital technologies

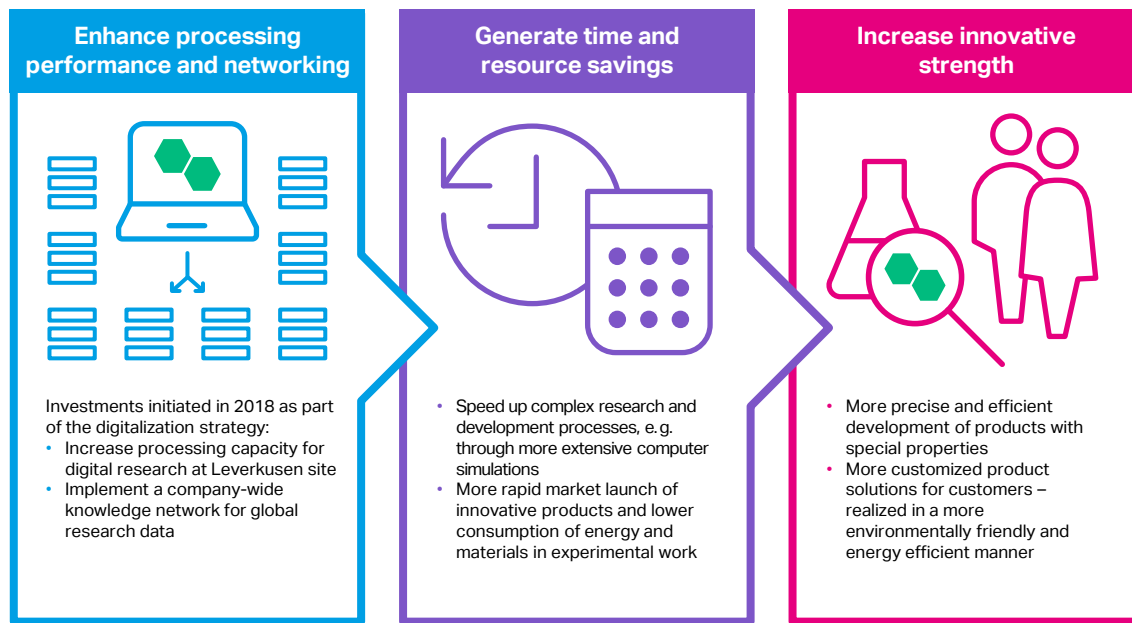
Covestro is committed to pursuing digitalization along with the associated new opportunities for the entire chemical and plastic value chain. Covestro utilizes the opportunities arising from digitalization with a comprehensive strategic program and particularly the intelligent use of data, thus setting new standards in cooperation with customers. To achieve this goal, we anchor digital technologies and work activities in production, along the supply chain, in research and development, and at all points of contact with customers as well as for developing new business models. The focus is on the specific benefit for our customers.

At the same time, all of our employees benefit from the opportunities of digitalization. Covestro recognizes digitalization as a comprehensive ongoing development that includes various priorities and advances at different speeds. The company has already used data analysis for a number of years primarily for production processes and continually invests in employees and infrastructure to systematically promote digitalization – and therefore improve the efficiency of work and production processes using modern data processing and the intelligent interconnection of systems. This also includes supply chain management and mobile work arrangements.

⁴ Employees calculated as full-time equivalents (FTE)

In this connection, Covestro is ramping up the digitalization of research and development.

Expansion of digital research and development



Strategic partnerships

To remain innovative, Covestro not only closely cooperates with its customers around the world, it also collaborates with partners from academia and industry under the banner of open innovation, which is of great strategic importance for the company. Bilateral cooperations and collaboration in large, publicly funded consortiums characterize the partnerships with research facilities and universities as well as with companies along the value chain.

Covestro's "Inclusive business" teams focus on improving the living conditions of people in underserved markets around the world. Their work in this area involves developing affordable solutions based on our innovative and sustainable products and technologies. These efforts focus particularly on food security and sustainable and affordable construction, e.g. for housing, schools and training centers, including water supply and sanitary facilities.

Our activities are aligned with the UN Sustainable Development Goals. Our guiding principle is to effect a positive change in the lives of ten million people and to contribute to social improvements by 2025. We would like to work with other organizations sharing similar values as part of a collaborative approach aimed at developing innovative solutions and business models.

Covestro maintains long-standing and strategic partnerships with various universities. This includes cooperating with outstanding partners throughout the world, such as RWTH Aachen University, Tongji University in Shanghai (China) and Carnegie Mellon University in Pittsburgh (United States).

On the industrial side, we are working more intensively with young start-ups and established partners that support us in our intensive efforts to develop alternative, nonfossil resources and biobased processes. A prerequisite for making biobased raw materials usable is their direct contribution to optimizing resources compared to traditional processes.

Our innovation project aimed at manufacturing biobased aniline is one example of this. We are now able to manufacture the important basic chemical aniline on the pilot plant scale from biomass, rather than using the traditional method benzene, a raw material based on crude oil. This innovative procedure is the result of a cooperation between University of Stuttgart, the CAT Catalytic Center at RWTH Aachen University and Bayer AG. Covestro has thus succeeded in positioning itself as an innovative and sustainable company and as an ideal partner for future research and development projects.



See section 5
"Company-wide
Sustainability
Management"

In addition to making alternative biobased raw materials usable in order to improve resource efficiency and expanding the CO₂ technology platform to close the carbon cycles, electrochemical processes represent an area of activity for visionary, circular economy solutions aimed at the energy-efficient manufacturing of basic chemicals. In pursuit of this goal, Covestro collaborated with RWTH Aachen University and the Jülich Research Center to establish the industrial electrochemical competence center ELECTRA.

Alliance Management, a central unit at Covestro, provides support throughout the Group in planning and implementing cooperations and networks and for positioning the issues of innovation and sustainability at the state, federal and European policy levels.

Resource-efficient circular economy solutions

Many process and product innovations that we develop with and for our customers strengthen the circular economy by achieving greater resource efficiency by means of longevity and energy efficiency. Another goal of this is to responsibly reuse or recycle the materials utilized throughout the value chain. In doing so, we aim to uphold the quality and must ensure the safety of the products and avoid waste and emissions to the greatest extent technically possible.

Covestro works in cross-industry consortiums on methods aimed at making it possible to use CO₂ and waste flows of other industrial sectors as future raw materials for its products. In order to live up to the growing significance of circular business models and the need for more efficient use of resources, a central coordinating office with global responsibility for circular economy was established at Covestro. In addition, a venture management team was established in 2018 in the Polyurethanes segment to work with the coordinating office on reviewing potential cooperative projects along the entire value chain and assessing future business potential and technology options pertaining to the integration of waste-based raw materials.

In 2018, we also promoted the exchange of scientific findings and supported and helped organize the conference "Circular Economy" hosted at the Leverkusen site by the German Chemical Society (Gesellschaft Deutscher Chemiker, GDCh). Furthermore, the event serves as a signal of the close collaboration between the chemical industry and science for the purpose of promoting circular and sustainable solutions.



For more information,
see section 3 in the
GRI Supplement

Our products consist primarily of chemical compounds that are based on carbon. We want to use carbon as intelligently as possible. Increasing carbon productivity means creating more value using fewer carbon-based fossil resources. We work with a group of international organizations in the Carbon Productivity Consortium to develop a generally recognized method for assessing carbon productivity and to make it a tool for change. Meetings were held in 2018 with other leading businesses and organizations, e.g. during the Covestro-Tongji Sustainable Development Forum in Shanghai (China).

Innovation in the individual segments

Polyurethanes

In the Polyurethanes (PUR) segment, we are working continually on improving the technology, costs and sustainability associated with polyurethane manufacturing. Using digital work techniques, we aim to address customer needs even more specifically during the development process. The research focuses on insulating properties and lightweight application developments as well as on efforts to improve flame-retardant properties, reduce emissions and manufacture cost-effective, sustainable precursors.

Covestro plays a decisive role in the industrial development of temperature-independent viscoelastic foams. The strategic, global partnership with the Haier Group, the world's largest manufacturer of large electric household appliances, underscores our innovative strength in improving energy-saving microcell foams. Together with other industrial partners, we are working on new processing technologies that can be used to manufacture lightweight composite materials. These include the innovative process called pultrusion, which we are further developing in cooperation with KraussMaffei Technologies GmbH and profine GmbH.

In addition, Covestro is conducting systematic research in the PUR segment to determine how CO₂ can be used intelligently. In the search for alternatives to petrochemical resources, we have succeeded in using CO₂ as a raw material for the synthesis of polyols on an industrial scale. Covestro has developed a new type of polyol for use as a component in flexible polyurethane foam that is manufactured to contain as much as 20% CO₂. This polyol is produced on an industrial scale in a facility at the Dormagen site in Germany, making use of a CO₂ waste gas flow from an adjacent facility. Products launched on the market already under the brand name cardyon™ include mattresses from RECTICEL NV/SA and, the most recent example, a sports flooring from Polytex Sportbeläge Produktions GmbH.

Furthermore, Covestro is working to expand the technology platform for the future production of molecules and products using CO₂. In order to better close the raw materials cycle, we are collaborating with industrial partners to research how foams can be recycled in various application areas and which technologies are visionary from a holistic perspective. We joined a partner in 2018 to commission a European waste study that analyzed the polyurethane waste flows and that can be used as a reference for future recycling scenarios.

New digital products such as our digital service platform also offer innovative solutions for customers. This platform has a forecast tool to identify the best online polyurethane recipes and processing conditions for a specific production environment.

A digital chemical reactor has also demonstrated initial success. Covestro developed software for this product to precisely calculate the changes in temperature and molecular composition, in other words, the progression of the chemical reaction.

Polycarbonates

In the Polycarbonates segment, we are developing products including new polycarbonate-based material solutions and customized products tailored to meet increasingly complex customer requirements in the mobility, health and electronics/LED technologies areas. The key here is to lower the weight of the components and final products, improve their energy efficiency and safety, and realize completely new design possibilities.

The trend toward modern and integrated light elements – made possible by LED technology – is a theme that can be traced through all industries, but particularly in the field of mobility. Due to their transparency and thermal stability, polycarbonates are the ideal material for realizing innovative solutions.

In the automotive sector, the growing number of driving assistance systems, sensors and camera systems can be seamlessly integrated with our sensor-transparent materials of the Makrolon™ brand. We also support the new requirements for electric drive systems by developing new flame-retardant products, e.g. for ultra-light honeycomb crash absorption structures for protecting batteries, vehicles and passengers.

In 2018, we provided consistent support in the lighting market for the growing trend toward LED technology. Our newly developed products combine outstanding optical properties with exceptional longevity. In this way, Covestro supports the trend toward maintenance-free, efficient LED lighting.

Our innovations in the field of health applications are also worth noting. We designed a new clear-transparent material that meets the exacting requirements for manufacturing diagnostic ampoules, thus improving occupational safety for medical technology staff when conducting time-sensitive blood analyses. In addition, our newly developed carbon-fiber reinforced Makrolon™ allows us to manufacture disposable surgery implements more efficiently.

For the electronics industry, our new product portfolio meets customers' stringent standards concerning optical and high-gloss display properties. Due to the new materials, it is now possible to realize larger displays with three-dimensional design. We have also made consistent advancements in the field of high-performance materials. At the Markt Bibart site we commenced operations in the commercial production of our Continuous Fiber-Reinforced Thermoplastic (CFRTP) composites, thus combining the stiffness and strength of carbon-fiber or fiberglass with the flexibility and efficient processability of thermoplastics. This makes applications lighter, increasingly stable and even more aesthetic and creates entirely new design possibilities in key areas such as IT, mobility and consumer products.

Coatings, Adhesives, Specialties

The Coatings, Adhesives, Specialties segment serves a number of specialized industries. Together with these customers and partners, we introduced significant innovations in 2018. A process and product innovation allowing even lower residual monomer content in our Desmodur™ and Bayhydur™ types had the biggest impact on our product portfolio in 2018. These are setting the new market standard in regard to work safety and industrial hygiene.

In 2018, we began launching a number of new products featuring biobased raw materials. Alternatives to petrochemical raw materials help to conserve resources and improve the carbon balance and are particularly successful wherever further product performance enhancement is required.

In addition to our standard products, our specialty areas are particularly strong drivers of innovation. The area of thermoplastic special elastomers is capitalizing on customized solutions for the electronics industry, such as cell phone cases. The Elastomers unit developed new polyurethane casting systems for the substitution of rubber products in mining. It also supplies suitable processing machinery and, in 2018, introduced a new generation of machinery that is intended to increase precision, productivity and efficiency for our customers. In the Specialty Films unit, significant investments were made in new capacities as a result of successful projects with the automotive, medical technology and security card industries.

We are pursuing new digital paths with regard to customer interaction. Based on the results of our research, we developed a digital tool to help customers make the right selection from our products and to provide the appropriate recipe for products. They can individually enter the desired properties themselves. In the area of processing machinery for elastomers, we introduced a digital interface to allow the maintenance of machinery while online, the management of innovative processing methods and the implementation of quality checks.

In the additive manufacturing (3D printing) area, we were able to implement critical, strategic steps using digital technologies. In the field of shoe technology, we worked with partners from the industry to establish new system solutions. As a result, efficient 3D printing processes replaced time-consuming work steps, and industry-standard materials were substituted by Covestro plastics.

4. Employees

The multifaceted abilities and personal efforts of all employees are the key to Covestro's success. Every employee has both the freedom and a mandate to act and contribute in line with our corporate values. Covestro thus promotes a working environment that is shaped by unconventional thinking, effective exchange of knowledge, creative problem-solving, constructive feedback and collegial cooperation. We aim to empower each of our employees to work to their full potential. Our managers are responsible for facilitating and supporting these objectives in close collaboration with our employees. In this way, we can work together to make an ongoing contribution to the company's success.

As of December 31, 2018, Covestro had 16,770 employees worldwide (previous year: 16,176). At the reporting date, the Group also had 541 employees in vocational training worldwide (previous year: 505), 516 of whom were based in Germany (previous year: 489).

Employees by Corporate Function¹

	Dec. 31, 2017	Dec. 31, 2018
	in FTE	in FTE
Production	10,115	10,479
Marketing and distribution	3,476	3,601
Research and development	1,072	1,123
General administration	1,513	1,567
Total	16,176	16,770
Employees in vocational training	505	541

¹ The number of employees on either permanent or temporary contracts is stated in full-time equivalents (FTE). Part-time employees are included on a pro-rated basis in line with their contractual working hours.

Human resources profile and focus

The focus of human resources is on promoting employees' individual skills and advancing their expertise, thus enabling them to optimally contribute to interdisciplinary collaboration. Our cultural awareness and our corporate values set standards for performance-related behavior and the respectful interaction with each other. Covestro makes it possible for employees to be directly involved in change processes and contribute their own feedback in order to continually improve the work processes and conditions. We place the highest priority on health and safety in the workplace. The constant monitoring and improvement of occupational safety, along with the range of programs and initiatives aimed at promoting health, provide vital conditions for successful collaboration. In addition, we place a particular focus on further reinforcing diversity and inclusion.

In terms of its structure and its content, the HR organization is positioned in line with the previously mentioned goals, and together with the new personnel management system launched this year, it reflects the necessary processes on a global level.

Hiring and retaining highly qualified employees

It is a strategic challenge for Covestro to be regarded as an attractive employer worldwide. We aim to retain qualified employees for the long term, ensure their professional and personal development and hire new talent.

When recruiting new employees, the Employer Branding and Recruiting departments rely increasingly on digital channels. The company reaches out to different target groups through social media and digital platforms such as LinkedIn and Glassdoor to introduce Covestro as an employer. Career sites were launched in 22 countries in 2018 to allow different target groups to be contacted at regional and national levels. These sites showcase Covestro as a company but also as an attractive employer in the respective region. We also rolled out an application management system globally in all of the countries, providing interested candidates the opportunity to view our current job postings around the world and to apply directly online. In this way, we focus our recruiting activities on the applicant.

We engage in numerous activities to maintain our overall attractiveness and significance as an employer brand. In all countries in which we are present, we actively conduct HR marketing to attract employees, thereby relying on direct interactions. To achieve this, we maintain close contacts with leading universities, are involved in international networks of students and take part in career fairs. Furthermore, we hold career events, workshops and tours at various Covestro sites. For instance, Covestro is involved in UNITECH International, a network of prospective engineers from nine universities and 22 companies.



See note 9, "Personnel Expenses and Employee Numbers" in the Notes to the Consolidated Financial Statements



For more information, see section 4, sub-section "Employee metrics" in the GRI Supplement



For more information, see section 8, sub-section "Occupational health and safety" in the GRI Supplement

In addition to the vocational training options we offer in Germany, we bring in high-school and college students to take part in numerous attractive professional internships worldwide each year. This gives them insight into our company's operations as well as personal experience with Covestro as an employer. In addition, Covestro offers interesting trainee programs for university graduates. For job activity profiles, we actively approach candidates and introduce the entry level options.

We also hold global competitions, award ceremonies and other events to encourage special achievements and outstanding commitment. For example, Covestro was a partner company in the Carbon Footprint Challenge 2018, which recognized ideas for reducing the carbon footprint in the industrial sector. This competition was hugely successful. Teams of students from 81 countries submitted over 150 different suggestions featuring ideas for ways to optimize the carbon footprint of processes and products in the future.

Promoting and developing employees and their development

Well educated and trained staff is crucial for ensuring that the company can further develop and is essential to the company's success. We believe in the concept of lifelong learning. We support our employees in continuing their professional and personal education throughout all phases of their careers.

To this end, we offer a wide range of customized continuing education options for all employees through our in-house learning concept entitled Coversity (a term that combines Covestro and university). Coversity holds numerous in-person classes and virtual training sessions worldwide at its Functional Campus, Project Campus, Leadership Campus and Virtual Campus, each of which focuses on a different target group. In support of the corporate strategy, the following focal points were highlighted in 2018: digital transformation and expansion of e-learning offerings, engineering and project management programs and agile work methods.

In the area of personnel development, Covestro uses a model with clearly defined core and leadership skills that serves as a reference for all employees. This is intended to ensure that managers and employees use the same vocabulary and uniform criteria when assessing performance. This model is used to conduct sound career planning, performance assessment and potential assessment for employees. The requirement profile for top management at Covestro was also revised this year, particularly to specify the focal points of the leadership behavior expected in the future. We have also transferred our performance assessment approach to an ongoing dialog between staff and supervisors held during the year, thus ensuring the timely adjustment of goals and priorities. In addition, performance meetings are held between staff and supervisors in which individual strengths and improvement opportunities as well as professional development perspectives within the Group are discussed. Managers and employees alike can take the initiative at any time and run a development meeting on an ad hoc basis. The contents of these discussions are integrated into the ongoing human resources planning conferences to optimally develop employees in their own best interests and those of the company. Maintaining a constant dialog between the employees and management is a key concern. To this end, employees can use an application in the human resources system to provide or actively request feedback across hierarchical levels, a feature intended to further reinforce the feedback culture within the company.

Compensating employees transparently and competitively

Offering fair compensation in line with the market is an essential prerequisite for recruiting, retaining and motivating qualified employees. Covestro therefore combines a base salary reflecting the duties of a position with performance-related compensation components and extensive additional benefits to create an internationally competitive pay package, about which employees are informed transparently.

Tasks and responsibilities are classified on the basis of a job evaluation conducted without considering the individuals in the positions. In the area of managerial functions, an internationally recognized evaluation method is used if the job evaluation has not already been stipulated by a local collective agreement. Based on this classification, the amount of the base salary in all countries is aligned with regional market conditions. Regular compensation benchmarking is conducted to ensure this orientation is maintained for the long term.



See notes 21, "Other Provisions" in the Notes to the Consolidated Financial Statements

Through the Group-wide bonus program Covestro Profit Sharing Plan (Covestro PSP) that has been in place since 2016, we have made it possible for our employees to participate in the success of the company each year with a uniformly calculated bonus payment. In addition, employees in managerial functions participate in the global compensation program Prisma, which bases payments on the Covestro share price, including in comparison to that of our competitors, and in this way rewards the long-term changes in the company's share price. Furthermore, a global budget is available from which supervisors can promptly grant Individual Performance Awards to recognize outstanding conduct, commitment and performance of all employees with a view to our values.

As in previous years, the stock participation program Covestment was once again offered in 2018 and provides employees with the opportunity to purchase Covestro stock at a discount. Over 50% of all eligible employees in Germany took advantage of this offer. This program was introduced in the United States in 2017. In the year under review, more than 40% of all eligible employees there made use of it. In 2018, Covestment was expanded to Hong Kong (China) in addition to Belgium, Italy, Mexico, Netherlands, Spain, Taiwan and Thailand. Approximately 75% of Covestro's global workforce is thus able to purchase Covestro stock at discounted prices.

Promoting diversity and inclusion

Covestro provides a working environment in which a wide variety of skills, talents, experiences and beliefs are welcomed and treated with respect. We promote unconventional thinking, creative ideas, and open-mindedness. Covestro is advancing the topic of "Diversity and Inclusion" as an important part of its corporate culture. Targets and a greater understanding for diversity and inclusion are being further solidified in global action plans and regional implementation teams. We are confident that a diverse workforce will lead to outstanding innovation and employee commitment. The inclusion of different perspectives results in more balanced decisions and thus contributes significantly to Covestro's success.

Creating the best working conditions and work models

The health, safety and professional and personal dedication of our employees are extremely important to us. Continuous monitoring of and improvements to occupational safety, combined with the range of programs and initiatives aimed at promoting health, serve as the fundamental principles for creating working conditions. Human resources management is supported in this task by the areas of Health, Safety, Environment and Quality (HSEQ) together with Law, Intellectual Property and Compliance (LIPC) and Corporate Audit. They assist Covestro in ensuring that all internal and relevant requirements of compliance and labor laws are met.

We also offer our employees modern working conditions so they can always be successful in a changing working environment and balance their professional interests with personal interests such as family life. In many countries, we exceed our legal obligations, e.g. by offering solutions such as flexible working hours, part-time working and working from home if this is compatible with operational requirements. A direct dialog with our employees is also particularly important to us. In this regard, we take into account national and international notification duties.

Our social responsibility as a company and an employer is based on our corporate values and our unreserved commitment to supporting and fostering human rights in our sphere of influence. At Covestro, social responsibility also includes creating working conditions that are based on mutual respect and appreciation among employees and, in particular ensure safety at the workplace. Our sustainable personnel policy also features a strong social safety net for our employees.

In addition, Covestro actively encourages awareness of healthy lifestyles. This is particularly true in regard to the challenges facing us as a result of demographic change and the raising of the retirement age in many countries.

We offer comprehensive workplace health management that is continuously expanded in response to employee surveys. The intention is to ensure that all employees have access to adequate and affordable health offerings such as sports programs, regular medical check-ups, help in overcoming illness and on-site medical care. The nature and scope of the health promotion programs differ around the world with regard to the respective country-specific level of development and access to national health systems. We offer our employees comprehensive measures aimed at preventing illness, in many cases exceeding statutory requirements.

New, flexible working environments for greater contact and communication

The work environment, contents and working methods are undergoing constant changes due to the digital transformation and the increasing level of momentum and complexity at our workplace. In order to meet these ever-changing requirements, Covestro provides a modern working environment. This applies particularly to cases such as moving into or creating new workspaces. Special emphasis is placed on a working environment that promotes learning and development while supporting agility and the exchange of knowledge. To achieve this, we provide not only the appropriate facilities, but also the IT infrastructure and media technology that works simply and intuitively.

We call this way of working our C³ methodology. It is intended to allow a change of perspective, creativity and effective collaboration to bring together all employees across team, department and national borders.

Our managers play a special role in this system. In addition to the established leadership standards and work methods, they are increasingly called upon to work together with their employees in the development of flexible and customized solutions for the purpose of leading Covestro into the new working environment at all levels, thus ensuring ongoing success.

Conducting business responsibly

5. Company-wide Sustainability Management

Covestro aims to help protect the environment, conserve limited resources, advance society and create value, all by firmly integrating sustainability into the corporate strategy and management.

Moreover, Covestro underlines the significance of the topic of sustainability and its identity as a sustainably operating company through its membership in key sustainability initiatives and its voluntary commitment to apply the guidelines and principles of those initiatives. Upon gaining economic and legal autonomy in September 2015, Covestro immediately signed up to the UN Global Compact and adopted its ten internationally recognized principles.

Strategic alignment

We would like to inspire innovation and drive growth – with profitable products and technologies that benefit society and reduce the impact on the environment. Similarly, we aim to serve our customers, society and the environment alike through our sustainability commitment, in accordance with our corporate vision of making the world a brighter place. Our Group-wide sustainability program approved in 2016 reflects these aspirations which are defined in ambitious nonfinancial targets to be achieved by 2025:

- Our project portfolio for research and development is aligned with the UN Sustainable Development Goals. By 2025, 80% of project expenditures for research and development will go toward areas that contribute to reaching these goals.
- 100% of our suppliers to comply with our sustainability requirements
- Reduce specific greenhouse gas emissions by 50% from the 2005 baseline figures
- Ten million people in underserved markets to benefit from our business solutions
- Get the maximum benefit out of carbon. Increasing carbon productivity enables us to create more value with fewer carbon-based fossil resources. We work in a group of international organizations on projects such as developing a generally recognized method to evaluate carbon productivity and making it a tool for change.

Targets are also agreed for the health, safety, environment and quality (HSEQ) topics and regularly reviewed using defined performance indicators. For instance, we defined another sustainability target pertaining to energy efficiency: we will halve the 2005 level of energy consumption per metric ton of product produced by 2030. Using the results achieved, existing action plans and measures are dynamically adapted to enable further improvements.

Covestro strongly endorses the comprehensive and global approach of the UN Sustainable Development Goals. As the world's leading supplier of high-tech polymer materials, we aim to make a significant contribution to mastering the greatest challenges of our time and finding suitable solutions.

Operational management

Our principles are anchored in internal Group policies. They provide concrete specifications on the important issues of value creation, sustainability, innovation, people, HSEQ and compliance. The six Group policies describe Covestro's goal of developing solutions that create added value for all stakeholders, promote sustainable development, drive innovation, motivate employees to implement our corporate vision, and create attractive jobs for talented employees. Moreover, we strive to continually improve our occupational safety and health, environmental performance, energy efficiency and quality activities while strictly adhering to all legal requirements as well as our more extensive voluntary commitments.



For more information, see section 2, sub-section "Company policies and voluntary commitments" in the GRI Supplement



See section 24
"Compliance"

Binding, Group-wide directives that support meeting HSEQ targets are accessible to all employees in an internal Group database. Compliance with these directives is verified during annual internal audits. In addition, issues and action plans as well as target achievement are monitored in a management review. Global and local operating procedures for the relevant processes implement the Group policies and directives at the operational level. Binding ethical and legal principles are anchored in our Corporate Compliance Policy (Directive). This policy includes important guidelines on fair and respectful working conditions and on fighting corruption. Covestro has implemented a reporting process so that employees can report potential compliance violations anonymously. The contents of the Corporate Compliance Policy are conveyed regularly through targeted communication measures and employee training sessions.

In addition to the intra-Group issues described above, social and societal matters are also of great significance to Covestro. We address our responsibility to society comprehensively through corporate citizenship, ongoing constructive dialog with authorities, neighbors and stakeholders and organizations interested in Covestro. To this end, we maintain constant contact with authorities, operate neighborhood offices and conduct regular plant tours. Donations, support programs and specific partnerships are further expressions of Covestro's active commitment to society.

The high standards of sustainability that we hold ourselves to also apply to our suppliers. We have developed a Code of Conduct that all suppliers must observe. This applies regardless of where they are headquartered, where they do business, or the scope or size of their respective services. Covestro⁵ is also a founding member of Together for Sustainability (TfS). The goal of this initiative is to standardize supplier assessments and audits worldwide while applying international standards.

Sustainability management and the integrated HSEQ management system are an integral part of all functions and positions in the Group. The Sustainability Community and the HSEQ Community are the central coordinating bodies and comprise members of the Board of Management and managers from the central sustainability and HSEQ functions. All segments and the regions in which Covestro operates (EMLA, NAFTA and APAC) are represented. They coordinate the relevant strategies and goals as well as update them on an ongoing basis. Committees are responsible for developing and setting goals and action plans. These in turn work closely with employees in key positions in the departments and business units which coordinate and monitor implementation.

⁵ Part of the Bayer Group when TfS was founded

Materiality matrix

The materiality analysis was updated in 2018. The following materiality matrix illustrates the result of the analysis.

Materiality Matrix 2018

Stakeholder relevance (external view)	Very high		<ul style="list-style-type: none">• Resource-efficient circular economy¹	<ul style="list-style-type: none">• Innovative solutions that contribute to the UN Sustainable Development Goals• Innovative solutions for addressing climate change (mitigation and adaption)• Product stewardship
	High		<ul style="list-style-type: none">• Business ethics, human rights and transparency• Sustainability in the supply chain	<ul style="list-style-type: none">• Occupational health and safety• Environmentally efficient operations
	Medium	<ul style="list-style-type: none">• Biobased plastics/resources²• Social engagement• Inclusive business• Political and social acceptance	<ul style="list-style-type: none">• Employer attractiveness	
		Medium	High	Very high
Relevance for Covestro (internal view)				

¹ Innovative products, business models, and process developments making circular material flows resource-efficient and economically viable, incl. biobased approaches

² Biobased alternatives to products produced from fossil resources without taking into consideration the associated changes in resource efficiency



For more information, see section 5, sub-section "Material sustainability issues" in the GRI Supplement

As part of the assessment of material topics, expectations and requirements of our key stakeholders were once again reviewed this year and considered accordingly in our sustainability program. Our external stakeholders evaluate the company not only in terms of financial and legal aspects but also with regard to behavior in line with sustainable and ethical principles. The stakeholders are our business partners, with whom we work closely on a daily basis; financial market participants, who judge our performance; regulators, with whom we discuss changes in our company and in the legal framework within which we operate; and societal stakeholders, whose acceptance and interest in the company is necessary for us. The materiality matrix visualizes the sustainability topics of key importance to Covestro and external stakeholders.



For more information, see section 5, sub-section "Stakeholder dialog" in the GRI Supplement

This year, some sustainability issues and their definitions were refined, e.g. by summarizing topics or separating out particular aspects. During this process, the topic of key importance "Innovative solutions for addressing climate change" was updated to include content from the topic "Adapting to climate change," and the title was changed accordingly. The titles of the key topics "Inclusive business" (previously: "Partnering for scalable solutions"), "Business ethics, human rights and transparency" (previously: "Business ethics and transparency"), "Sustainability in the supply chain" (previously: "Sustainable procurement"), and "Occupational health and safety" (previously: "Occupational health and safety in operations") were defined more precisely to better align them with the individual sub-topics they encompass. The topics "Biobased plastics/resources" and "Political and social acceptance" were added based on the results of external interviews and the in-house consultation with experts. Compared to the previous year, "Inclusive business" was classified as being somewhat less relevant. Going forward, the topics with high or very high relevance for Covestro and the stakeholders overall will become more important and will be more heavily integrated into our strategic and commercial business focus. These sustainability topics are also the basis for selecting the main aspects and indicators as required for the GRI core reporting.

Sustainability reporting

Our reporting is in accordance with recognized sustainability reporting standards. We report on fundamental topics and nonfinancial performance indicators pursuant to Section 315 (3) of the German Commercial Code (HGB) in our Group Management Report and supplement this information with additional content, which is additionally required in accordance with the GRI standards. Furthermore, as a member of the UN Global Compact, we submitted a corresponding progress report in May 2018.



For more information, see section 1 in the GRI Supplement

Nonfinancial Group statement

We publish the nonfinancial Group statement pursuant to Sections 315b and 315c in conjunction with Sections 289c through 289e HGB as an integrated part of the Group Management Report. The respective sections include the strategies we pursue in addressing environmental, labor and social issues as well as protecting human rights and fighting corruption and bribery, including the due diligence processes followed and measures implemented, as well as the outcomes of these strategies.

We applied the Global Reporting Initiative (GRI) standards as a framework for preparing the nonfinancial Group statement.

Topics relevant to the nonfinancial Group statement are identified on the basis of the results of the materiality matrix in an internal process and in consideration of their significance and implementation within the company. The following table provides an overview of the key sustainability topics with an eye to the relevant aspects and contains references to the specific sections in the Group Management Report.

In order to identify and address current developments and sustainability-related opportunities and risks at an early stage, we also review whether there are any new findings relevant to opportunity and risk management.

As an integral part of the Group Management Report, the Group's nonfinancial statement was audited with reasonable assurance by the auditor, KPMG AG Wirtschaftsprüfungsgesellschaft. The results provided by the external providers EcoVadis SAS and Together for Sustainability AISBL (TfS) were not subject to this audit.

Key Sustainability Topics of the Group's Nonfinancial Statement (HGB)

Key topics of the Group's nonfinancial statement (HGB)	Relevant aspects in accordance with the Group's nonfinancial statement (HGB)	Section reference in the Group Management Report
Innovative solutions that contribute to the UN Sustainable Development Goals	Environmental matters, social matters	"Innovation" section 3, "Integrated Management System for Occupational Health, Safety, Environmental Protection and Quality" section 7
Environmentally efficient operations	Environmental matters	"Environmental Protection" section 9, "Integrated Management System for Occupational Health, Safety, Environmental Protection and Quality" section 7
Occupational health and safety	Employee matters	"Safety" section 8, "Integrated Management System for Occupational Health, Safety, Environmental Protection and Quality" section 7
Employer attractiveness	Employee matters	"Employees" section 4
Product stewardship	Social matters	"Product Stewardship" section 10
Social engagement	Social matters	"Company-wide Sustainability Management" section 5
Inclusive business	Social matters	"Innovation" section 3
Sustainability in the supply chain	Respect for human rights	"Sustainability in Supplier Management" section 6, "Compliance" section 24
Business ethics, human rights and transparency	Fighting corruption and bribery, Respect for human rights	"Employees" section 4, "Sustainability in Supplier Management" section 6, "Opportunities and Risks Report" section 21, "Compliance" section 24



Stakeholder dialog

We work closely with our stakeholders in a collaborative manner. After all, they evaluate the company not only in terms of legal aspects, but also with regard to our adherence to sustainable and ethical principles. To identify crucial sustainability issues, we continually analyze the interests, expectations and requirements of our key stakeholders (materiality analysis) and incorporate them into our target program.

For more information, see section 5, sub-section "Stakeholder dialog" in the GRI Supplement

Covestro's Key Stakeholders

Partners	Financial market participants	Regulators	Social interest groups
Customers	Investors and creditors	Authorities	Media and the public
Suppliers	Rating agencies	Legislators	Neighboring communities
Employees	Analysts	Politicians and opinion leaders	Nongovernmental organizations
Associations			
Scientific community			

As a company, Covestro is part of society and public life. Continuous dialog with our stakeholders is therefore particularly important to us.

An open exchange is the foundation for mutual understanding and social acceptance of our entrepreneurial decisions. At the same time, these conversations provide us with new inspiration and crucial input. We therefore engage in an ongoing dialog with our stakeholders.

We maintain a regular exchange with authorities, ministries, politicians and important opinion leaders regarding regulatory matters at the local, regional, national and international levels because, in essence, these groups design the framework conditions within which our company operates. The dialog takes place by way of contributions to public consultations, involvement in specialized workshops, association activities and targeted meetings with political opinion leaders. Covestro has defined clear and binding rules for involvement in the political sphere in its code of conduct for responsible lobbying.

At our sites around the world, we pay close attention to the impact our activities have on the directly neighboring communities and on society in general and take this into account in making operational and strategic decisions. This includes an active, open and constructive dialog allowing Covestro to be recognized as a reliable and trustworthy partner that takes its social responsibility seriously.

The dialog with neighbors, the public and nongovernmental organizations (NGOs) is initiated on an ad hoc basis. In doing so, we adhere to national and local guidelines, often even exceeding them. In the case of investment projects, the neighboring community is actively informed and involved. In the United States, for instance, the dialog takes place through community advisory panels (CAPs). These panels meet regularly with local governments and/or neighborhood representatives to learn about current issues. In Germany, the Chempark neighborhood offices are used to communicate with neighbors. We engage in an active dialog with social interest groups particularly when new facilities are planned, built and commissioned.

Dialog with our partners is very important to us. You will find additional information on our ongoing dialog with customers, suppliers, employees, industry associations and scientific institutions in sections "1. Group Structure and Business Model," "3. Innovation," "4. Employees" and "6. Sustainability in Supplier Management."

We also conduct intensive dialog with capital markets. You can also read more about this topic in section 22 "Declaration on Corporate Governance" in the Group Management Report.

Social engagement

As a global enterprise, we are aware of our social responsibility. We demonstrate responsibility for our decisions and our actions, for our products and services, toward our customers and investors, and toward the environment and the society in which we live. We are committed to compliance with all applicable tax laws. Furthermore, we feel committed to the principle that, in each case, our tax payments in all of the countries where we operate are in line with the value we create there. We also want to increase access to education, technology and a better life. In doing so, we are using our social engagement as a catalyst to rapidly reach the UN Sustainable Development Goals, which aspire to create a world characterized by greater justice, resilience and well-being for humans and the planet by 2030. As one of the world's largest polymer companies, Covestro would like to use its position to work with different organizations in numerous regions in the world to advance projects for protecting the environment, improving the welfare of society and stimulating the economy. To achieve this, a central unit in the company supports Group-wide efforts to plan and implement cooperative efforts with partners and award donations in order to work toward reaching the UN sustainability goals. Donations are allocated on the basis of an annual financial planning that is approved by the Board of Management and implemented in accordance with a Group directive.



6. Sustainability in Supplier Management

For more information,
see section 6 in the
GRI Supplement

Covestro regards adherence to sustainability standards within the supply chain as a crucial factor in value creation and also an important lever for minimizing risks. For this reason, Covestro sets not only economic standards but also social, ethical and ecological standards, as well as those related to corporate responsibility when selecting new suppliers and in our relationships with existing suppliers. These standards are defined in Covestro's Supplier Code of Conduct, which is available online in 13 languages and provides the basis for collaboration. The Code is derived from the principles of the UN Global Compact and our position on human rights. It is integrated across the Covestro Group into the electronic ordering systems and contracts. Furthermore, relevant new and renewed supply agreements generally contain special clauses requesting suppliers to observe the sustainability requirements contained in the Code of Conduct and entitling Covestro to monitor their compliance.

Covestro has set ambitious and measurable targets through 2025 aimed at systematically promoting sustainability in supplier management. All suppliers must agree to comply with our Code of Conduct by accepting our contracts and orders. Suppliers accounting for a repeat purchasing value exceeding €100,000 per year are also assessed and must comply with Covestro's sustainability standards by means of meeting the minimum requirements as defined by us in the supplier assessments described below. In the year under review, around 95% of our total purchasing value was attributable to these suppliers. We work closely with our strategically most important suppliers to improve their sustainability performance. We have also incorporated this into our sustainability goals.

Evaluation methods and processes of the TfS initiative

Covestro is a member of Together for Sustainability AISBL (TfS), a joint initiative undertaken by the chemical industry that now numbers 22 companies. The nonprofit organization founded in 2011 pursues the goal of establishing a program of global standards for responsibly sourcing goods and services and standardizing supplier evaluation methods worldwide. Covestro supports all TfS criteria concerning the areas of ethics, employee rights, human rights, health and safety, and the environment.

As a member of TfS, Covestro is responsible for monitoring and auditing the sustainability performance of its suppliers. To support this, TfS offers the infrastructure for supplier assessments by third parties using online assessments and on-site audits. The TfS infrastructure enables the results of these assessments to be distributed via an online platform. In the year under review, Covestro played an active role in all TfS work groups in designing and improving the TfS program and the associated evaluation process.

Covestro uses the standardized TfS assessment process to audit how well its suppliers maintain the sustainability standards required by Covestro. Covestro uses a structured prioritization process to select the suppliers to be audited and initiates either an online assessment or an on-site audit for the selected suppliers – provided that there are no current results. In prioritizing the suppliers for these assessments, Covestro considers a combination of country and material risks as well as strategic importance in accordance with Group targets. The risk assessment for country and material groups that we use for our risk analysis is based on recognized external sources.

EcoVadis SAS (EcoVadis), an established external provider accredited by TfS, conducts the online assessments. The goal is to assess the suppliers' business practices in regard to their sustainable orientation (Corporate Social Responsibility, or CSR). The questionnaire suppliers complete for the online assessment is based on internationally recognized sustainability standards and includes 21 sustainability criteria grouped into the categories environmental protection, working conditions and human rights, fair business practices and sustainable procurement. The questionnaire's section on sustainable procurement also inquires as to the extent to which the sustainability standards of upstream suppliers are considered.

This questionnaire is dynamically adapted by EcoVadis depending on factors such as the industrial sector, company size and country risk. Suppliers must document the responses provided to the questionnaire by submitting corresponding supporting documents. The CSR analysts at EcoVadis assess supplier responses and supporting documents in consideration of international standards, such as the United Nations Global Compact, and consolidate the data into a scorecard available online that shows results by category. This scorecard provides an overview of identified strengths and improvement areas for the suppliers analyzed, among other details.

External, independent auditors trained and accredited by TfS conduct on-site audits of selected companies – and follow-up audits, if needed – based on the TfS sustainability criteria. For the purpose of monitoring the quality of the audits, the initiating TfS member periodically takes part in audits selected on a random basis and evaluates them using a standardized checklist.

Covestro analyzes and documents the online assessments and on-site audits of our suppliers, and – in the event of noncompliance with our sustainability requirements – jointly defines with suppliers specific improvement measures and corresponding targets. Covestro continuously verifies the implementation of the required improvements.

The following table shows the status of the supplier assessments.

Key Data from the Sustainability Assessments of our Suppliers

	2017	2018
Share of relevant purchasing value from suppliers meeting Covestro's sustainability criteria^{1,2}	71%	80%
Supplier assessments conducted in the reporting year²	719	736
of which through online assessments	690	712
of which through on-site audits	29	24
Total supplier assessments conducted²	1,349	1,584
of which through online assessments	1,215	1,400
of which through on-site audits	134	184
Supplier assessments meeting Covestro's sustainability requirements	870	1,074

¹ Only suppliers accounting for a repeat purchasing value exceeding €100,000 per year are taken into account.

² Online assessments (conducted by external, independent, TFS-accredited provider EcoVadis) and on-site audits (conducted by external, independent TFS-accredited auditors) of Covestro's suppliers, both initiated by Covestro and shared within the TFS initiative, are taken into account. Only assessments of our active suppliers that are no more than three years old are taken into account.

Results of online assessments and on-site audits

At the end of 2018, 80% (previous year: 71%) of our relevant purchasing value was attributable to suppliers whose externally conducted assessments meet our sustainability requirements. Covestro thus exceeded its own intermediate goal of 75%. Furthermore, 75% of our strategically most important suppliers who conducted a repeat assessment in 2018 have improved their results.

In 2018, assessment results considered critical by Covestro were identified for eleven suppliers; in other words, they failed to meet the required minimum result by a significant margin. This corresponds to 1% of all suppliers assessed (previous year: 2%). Covestro responds to such infractions with specific action plans and demands that the suppliers in question implement appropriate corrective measures; follow-up audits are conducted to verify compliance.

As in the previous year, Covestro had no cause to terminate a supplier relationship in the reporting year because the assessment revealed an unsatisfactory performance, or a serious sustainability deficit, e.g. human rights violations like child labor or forced labor.

Training measures and dialog on the issue of sustainability

Covestro maintains an ongoing dialog with its suppliers and supports its procurement specialists in implementing the sustainability requirements by providing Group-wide training. Last year, workshops were held worldwide with our strategic procurement specialists aimed at strengthening cooperation with suppliers in regard to the four strategic principles in Procurement: reliability, sustainability, cost transformation and innovation. Further progress was made on implementing the four strategic principles in 2018. Regional Program Managers were posted in each of the EMLA, NAFTA and APAC regions to promote the establishment and optimization of our sustainability program during the reporting year.

Dialog and close collaboration are essential in enabling suppliers to successfully comply with Covestro's sustainability requirements. We therefore offer a range of training and dialog opportunities for them as the basis for building reliable relationships that enable us to identify and eliminate any obstacles to collaboration at an early stage.

7. Integrated Management System for Occupational Health, Safety, Environmental Protection and Quality



For more information, see section 2, sub-section "Company policies and voluntary commitments" in the GRI Supplement

Covestro's stated aims are to take preventive measures to protect employees, suppliers and service providers, ensure uninterrupted operations and continually improve quality. The integrated management system implemented throughout the Group pertains to the topics of health, safety, environment and quality (HSEQ). The head of the integrated HSEQ management system is commissioned by the Board of Management. The integrated management system ensures implementation of the specifications of the HSEQ Group guidelines based on internationally recognized standards governing occupational safety (OHSAS 18001), the environment (ISO 14001), energy (ISO 50001) and quality (ISO 9001). Adherence to processes and workflows is regularly verified through internal audits, annual self-assessments and external certifications. The insights we gain from these measures are incorporated into our annual management assessment. Every process is thus subject to ongoing monitoring and is updated as required. Our existing HSEQ management system corresponds to the requirements of the current ISO 9001:2015 and ISO 14001:2015 standards and was also successfully certified in 2018 based on the new ISO standards. Specific targets in line with the aforementioned ISO standards have been defined.

The integrated management system comprises the following subsections:

Occupational health and safety

In the area of occupational health and safety, globally applicable processes include detailed rules governing the safety of production facilities and manufacturing processes, the investigation of accidents and environmental and transportation incidents, health screening and occupational safety, and emergency management at Covestro. The rules stipulated by international standards such as OHSAS 18001 comprise the minimum requirements applicable worldwide and are supplemented with additional regulations as needed. This is intended to prevent accidents and incidents during day-to-day business as well as during transportation that could affect people or the environment. We also offer support to our customers, for example by providing training on the safe handling of our products in and outside of our facilities.

Environment and energy

In the areas of environment and energy, global minimum standards were specified in the form of rules and regulations similar to internationally recognized standards and rules such as ISO 14001 (environmental management) and ISO 50001 (energy management) to ensure that we satisfy our ambitious expectations of resource efficiency and emission reductions. Each year we analyze and evaluate the effects of our activities on the environment. From our environmental performance assessment, we derive measures to reduce and minimize environmental impacts. Global process and workflow descriptions help us implement these throughout the Group. In the year under review, the energy efficiency system we introduced in 2008 was recertified to ISO 50001 for the seventh time at the main German production sites.

Quality

We have very high expectations when it comes to the quality of the raw materials we use, and set standards for their processing into high-tech plastics and polyurethane precursors. Within the framework of our integrated HSEQ management system, our quality management meets the requirements of the current, newly revised standard ISO 9001:2015. In doing so, we are creating the underlying conditions for addressing the customers' needs to a large degree with regard to our products and services.

8. Safety

The continuous improvement of a safe work environment is both a high priority and a key component of Covestro's corporate responsibility and corporate culture. Our primary goals include preventing injuries, disruptions at plants and accidents during transportation, as well as safeguarding the health of all employees in the workplace and during work-related activities. This also applies to third-party employees (contractors) who work for our company within the scope of operational activities. Detailed rules and regular checks are instrumental in meeting these goals, as are safe production processes, plants and transportation. There is an equal focus on protecting the environment and the well-being of everyone who comes into contact with our products. In addition, we developed and launched the SafeGuard program, which allows us to address all aspects of safety of importance to Covestro in a comprehensive and global manner. Please continue reading for details on SafeGuard.



For more information, see section 8 in the GRI Supplement

Occupational health and safety

A harmonized reporting system implemented throughout the Group exists for reporting and processing work accidents and potential hazards. The classification complies with U.S. OSHA standard 1904 "Recording and Reporting Occupational Injuries and Illness". After an accident is reported to the plant or site officer, the data is then consolidated in the Integrated Information Management System (IIMS), a software application developed by Covestro. IIMS makes it possible to identify both positive and negative developments and trends in the area of safety in real time so that corresponding short-term corrective and long-term improvement measures can be implemented if necessary. Covestro's safety experts, supported by external expertise if needed, analyze the background circumstances and the consequences of an incident. The results of the cause analysis conducted after an incident occurs and the corrective measures taken are published throughout the Group in order to raise employees' safety awareness; as a result, everybody can better assess comparable hazards and situations as well as proactively remedy them.

Covestro processes workplace accidents involving the company's own staff and contractors as part of the recordable incident rate (RIR) and lost time recordable incident rate (LTRIR), as per OSHA 1904. This statistic measures the number of accidents per hours worked (standard of 200,000 hours per year). It takes into account all work accidents with injuries requiring medical treatment beyond first-aid measures.

Work-related Accidents

	2017	2018
Lost time recordable incident rate (LTRIR ^{1,2})		
in relation to Covestro employees ³	0.25	0.20
in relation to contractor employees ⁴	0.23	0.10
Recordable incident rate (RIR ⁵)		
in relation to Covestro employees ³	0.35	0.38
in relation to contractor employees ⁴	0.43	0.24
Fatal injuries (total)	0	0
of which Covestro employees	0	0
of which contractor employees	0	0

¹ LTRIR (Lost time recordable incident rate): Number of workplace accidents resulting in at least one day of lost time per 200,000 working hours annually

² The LTRIR for contractor employees in the previous year was amended due to the subsequent change of a recordable workplace accident in 2017 to a workplace accident resulting in at least one day of lost time.

³ The number of hours worked was calculated by multiplying the average number of employees for the year by average values determined using OECD statistics and other figures. The number of underlying working hours was retroactively adjusted for fiscal 2017.

⁴ Employees of external companies contracted by Covestro whose accidents occurred on our company premises. Due to more stringent requirements for the validation of hours worked, the data for hours worked by external company employees on Covestro premises in 2018 refer exclusively to sites whose time reports already satisfy these requirements. The key data reported for contractor employees in 2018 are maximum values that are only comparable to the 2017 values to a limited extent.

⁵ RIR (Recordable incident rate): Number of workplace accidents per 200,000 working hours annually

We continuously work to keep the accident figures as low as possible in the future as well. In recent years, for example, we have developed a comprehensive concept of measures to prevent accidents by employees of external companies. Through special safety programs for contractor employees and the consistent inclusion of outside companies in ongoing safety activities at our sites, we have helped to ensure that the number of accidents involving contractor employees has declined significantly. In recent years we have reached a year-on-year safety plateau with our own employees. In other words, the accident figures show only minor positive or negative changes. We began developing a program in 2018 with an eye to breaking through this plateau and ushering in a long-term positive trend. This program intends to reduce the incidence of errors and improve the consistency of decision-making in crisis situations. By implementing the SafeGuard program, we expect to generate further momentum that will help to raise the safety level and consequently register fewer accidents. To this end, Covestro is currently defining 24 focal points and developing corresponding, discipline-specific solutions.

Since 2016, we have analyzed all near-misses for their potential risk of a serious accident. We expanded this procedure in 2018 to include all other types of events, which we evaluate according to a defined set of criteria with regard to an event's potential which, under other circumstances, could have led to a High Potential Event (HPE). Events classified as HPEs are thus treated as events that have actually occurred; they require a detailed cause analysis and must be communicated. The analysis of the data in 2018 resulted in the same priority activities that had already been identified in 2017. The priorities concern protecting employees' hands at work and human-machine interaction. Promoting safety awareness among employees is essential for minimizing hazards during day-to-day operations. In 2018, Covestro celebrated an anniversary, awarding the CEO Safety Award for the tenth time. All employees were once again called upon to submit suggestions for improving safety and to apply for the annual internal CEO Safety Award. All of the ideas were evaluated by a jury of in-house participants; the Chair of the Covestro Board of Management, Dr. Markus Steilemann, presented awards to the winners.

Process and plant safety

We aim to ensure the safety of our processes and plants in a way that avoids unacceptable risks to our employees, our neighbors and the environment. We conduct extensive, systematic safety inspections at regular intervals. A globally standardized KPI, Loss of Primary Containment (LoPC), applies to all Covestro plants and is an early indicator integrated into Group-wide safety reporting. LoPC refers to, for example, chemicals in amounts above defined thresholds leaking from their primary containers, such as pipelines, pumps, tanks or drums. We use the LoPC Incident Rate (LoPC-IR) to determine the number of LoPC incidents per 200,000 working hours per year in areas relevant to plant safety. The continuous improvement in plant safety at Covestro is also reflected in the decline in the LoPC rate compared with the previous year.

Plant Safety Incidents

	2017	2018
LoPC IR ^{1,2}	0.52	0.35

¹ LoPC IR (Loss of primary containment incident rate): Number of plant incidents per 200,000 working hours annually

² The number of hours worked was calculated by multiplying the average number of employees for the year by average values determined using OECD statistics and other figures. The number of underlying working hours was retroactively adjusted for fiscal 2017.

Every LoPC incident as well as minor and near-miss incidents are carefully analyzed to determine their causes, and the results and corrective actions taken are publicized throughout the Group. The criteria (e.g. very low threshold or nonhazardous substance releases) were selected so that even releases of substances or energy that have no impact on employees, neighbors or the environment are systematically recorded. This contributes to maintaining the integrity of our facilities. The findings of last year's analyses were evaluated in a company-wide program called SafeGuard, and a Group-wide initiative was launched focusing on "Development of the organization and qualifications," "Process and plant safety," "Technological standardization" and "Process control technology and process analysis technology." The global exchange of experiences relevant to safety and the definition of globally binding standard processes and their uniform implementation are intended to help maintain the existing high standard of procedural and plant safety within the company.

Environmental and transportation incidents

Side by side with continuous improvement of process and plant safety and safety in the workplace, we are constantly working on making the transportation of our products safer. We report all incidents at all sites operated by Covestro worldwide in line with our internal directives. These are documented according to defined criteria such as quantity of loss of containment, material hazard class, degree of personal injury and blocked transportation routes. In the case of hazardous materials, we voluntarily record and categorize all leaks starting with as little as 50 kilograms. In addition to numerous regional monitoring activities, a gap analysis was conducted in 2018 to verify compliance with the rules of the Group-wide guideline entitled Transport and Logistics Safety. Corresponding corrective measures were derived from the findings and implemented.

9. Environmental Protection

Environmental protection and the efficient use of resources are fundamental drivers for Covestro's actions, both in terms of our own business activities and the development of innovative product solutions. We continually strive to use materials and energy more efficiently and to reduce emissions and waste generated. Our innovative products also support the efforts of our customers in many industries such as the automotive, construction and electronics sectors, as well as the furniture, sports and textile industries, to improve their own resource efficiency and cut emissions.



For more information, see section 9 in the GRI Supplement

Energy consumption

Covestro's energy consumption includes the primary energy used in production and during electricity and steam generation by the company as well as the purchase of additional electricity, steam and refrigeration energy and the use of process heat. It also comprises the energy lost during the generation and distribution of electricity and steam. All told, these figures make up Covestro's equivalent primary energy consumption.

The use of energy and materials and the level of greenhouse gases emitted are closely related to the quantity of materials we produce. In 2018, total energy consumption in the Group decreased by 1.8% while equivalent primary energy consumption grew slightly by 0.5%, with a slight decrease of 0.7% in production volumes. As a result, the equivalent primary energy consumption for a given production volume (energy efficiency) deteriorated by 1.2%. Our long-term positive trend indicating an overall 35.7% improvement in energy efficiency compared to the base year 2005 is attributable to factors including our ongoing efficiency improvement programs and the global energy efficiency system observed by Covestro.

Energy Consumption in the Covestro Group

	2017	2018
Equivalent primary energy consumption ¹ (in TJ)	75,202	75,553
Production volume ² (in million metric tons)	14.97	14.87
Specific energy consumption (energy efficiency)³ (in MWh per metric ton)	1.40	1.41

¹ Sum of all individual energy figures translated into primary energy at our main production sites, which account for more than 95% of our energy consumption

² Sum of the in-spec key products, which in addition to our core products also include products such as precursors and by-products, at our main production sites, which account for more than 95% of our energy consumption

³ Quotient of equivalent primary energy and in-spec production volume at our main production sites

In addition to the successful implementation of energy efficiency measures, a series of energy-related improvements at our production site in Caojing, China, is of particular note. Examples include the use of process-related waste heat and optimized processes that reduce steam requirements.



For more information, see section 9 in the GRI Supplement

Covestro currently plans to build a chlorine production plant at its Spanish site in Tarragona, where it will use a particularly energy-efficient manufacturing process. The plant intends to use what is known as oxygen-depolarized cathode technology, which consumes around one-quarter less energy than the conventional process. In Tarragona, Covestro is building the first industrial-scale plant to operate solely on the basis of this state-of-the-art technology.

Greenhouse gas emissions

Along with governments, nongovernmental organizations and other private-sector companies, Covestro supports implementation of the results of the 21st UN Climate Change Conference, which took place in Paris at the end of 2015, and is committed to the UN Sustainable Development Goals (SDGs).

Covestro calculates greenhouse gas emissions according to the internationally recognized standards of the Greenhouse Gas Protocol (GHG Protocol). The calculations include both direct emissions from the burning of fossil fuels and indirect emissions from the procurement and consumption of energy generated outside the company such as electricity, heating or refrigeration energy. In addition to CO₂, all other relevant greenhouse gases are also documented. The emissions factors for the calculation of CO₂ equivalents for the global warming potential were taken from the 1995 IPCC Assessment Report.

In 2018, these specific emissions totaled 0.4342 metric tons of CO₂ equivalents per metric ton of product (previous year: 0.4064). This corresponds to a cumulative drop of 40.0% compared with the base year 2005, while an increase of 6.8% compared to the previous year was recorded. In 2018 we transitioned to calculating emissions based on the market-based method of the current GHG Protocol. The prior-year figures were recalculated to enable comparison based on consistent methodology. The cumulative change until 2017 is calculated using the method established in the GHG Protocol until 2014. The 2018 figure is calculated using the market-based method of the current GHG Protocol.

Covestro Group Greenhouse Gas Emissions¹

	2017	2018
Specific greenhouse gas emissions (metric tons of CO ₂ equivalents per metric ton of production volume ²)	0.4064 ³	0.4342

¹ Portfolio-adjusted based on the GHG Protocol; financial control approach; global warming potential (GWP) factors correspond to the "IPCC 2nd Assessment Report"

² Total greenhouse gas emissions (Scope 1 and 2, GHG Protocol) at the main production sites, which are responsible for more than 95% of our energy consumption (total of 6.5 million metric tons of CO₂ equivalents in 2018) divided by the in-spec production volumes for key products. Market-based emissions factors were mostly used when calculating specific Scope 2 greenhouse gas emissions; wherever these were not available, calculation was based on country-specific emissions factors from a generally accepted source (e.g. International Energy Agency (IEA)).

³ Prior year figures adjusted due to the conversion to market-based emissions method in accordance with the current GHG Protocol. The indirect emissions were calculated partially on the basis of the IEA data from the IEA Emission factors 2018 © 2019 IEA Online Data Services, www.iea.org/statistics. The greenhouse gas emissions calculated are based in part on estimates such as the previous year's data.

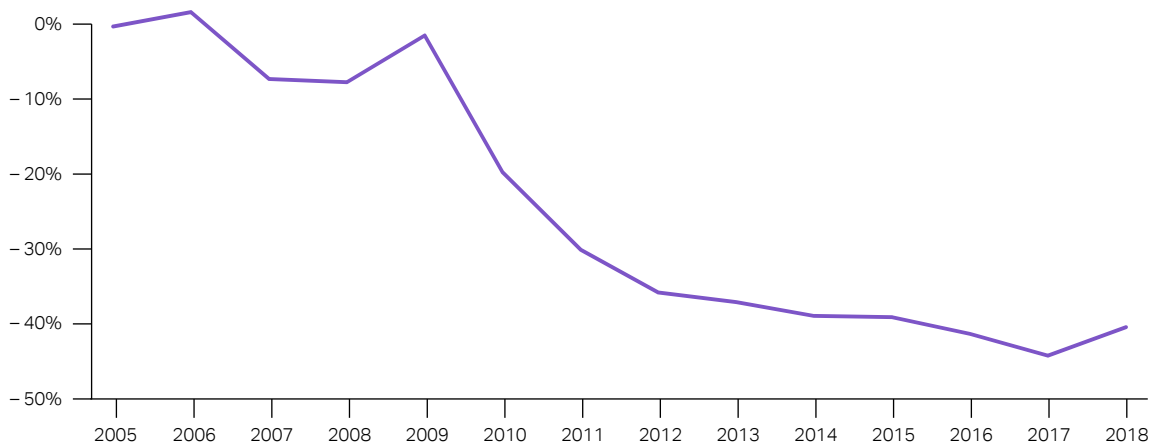


See section 5
"Company-wide
Sustainability
Management"

The main cause of the increase was unfavorable developments in the energy mix for the generation of steam and electricity at several of our large sites in Germany and the United States. This necessitates redoubled efforts in coming years to reach our target of cutting our greenhouse gas emissions in half by 2025.

Development of Specific Greenhouse Gas Emissions

(Cumulative annual change in the specific greenhouse gas emissions per metric ton of product manufactured, compared with the base year 2005 – expressed in percent¹)



¹ The calculation methods for the fiscal year 2018 were changed to the current market-based method, in accordance with the Scope 2 Guidance of the GHG Protocol. Values recognized from 2005 to 2017 are calculated throughout in accordance with the methods established in the GHG Protocol and which were in effect until 2014. When calculating changes in percentage points from 2017 to 2018, the value for 2017 was recalculated on the basis of the market-based method, for comparability purposes.

Moreover, Covestro develops products whose manufacture results in lower CO₂ emissions than those of conventional products – by using CO₂ as a raw material, for instance. To this end, the company began marketing an innovative binder for which a key component is produced using as much as 20% CO₂. In this way, the same quantity of petrochemical raw materials is saved and the CO₂ footprint improves.

Water, effluents and waste

Covestro takes a holistic view of water as a resource. We not only take our water consumption and the related problems of water scarcity and water quality into consideration but also the wastewater we generate and the growing concern of plastic waste in the oceans.

As part of this, we initiated a risk assessment of our production sites to examine water availability, quality and accessibility. In our production activities, we strive to use water several times and to recycle it. Covestro primarily generates wastewater from once-through cooling systems and production. All wastewater is subject to strict monitoring and analysis according to the applicable legal regulations before it is discharged into disposal channels.

For economic considerations alone, Covestro's manufacturing processes are already as efficient as possible when it comes to the use of materials, so only relatively little waste is produced as a result. Ongoing observation and evaluation of the manufacturing processes additionally minimize material consumption and disposal volumes as much as possible. This is achieved by safe disposal channels with separation according to the type of waste

and economically expedient recycling processes. Production fluctuations, building demolition and refurbishment, and land remediation also influence waste volumes and recycling paths. Accordingly, the volume of hazardous waste generated was reduced, whereas the total waste volume produced (hazardous and nonhazardous) in 2018 increased significantly. This was primarily due to the higher volume of construction waste resulting from the construction of the new administrative building at the Leverkusen site. Targeted projects are in place to determine specific opportunities for waste reduction and put these into practice within the context of our existing manufacturing processes. For instance, a new procedure is currently being tested in the manufacturing process for our bulk product toluene diisocyanate (TDI), which serves to significantly reduce the resulting process waste volumes. After its successful implementation, the findings can subsequently be transferred to additional plants at other Covestro sites.

Covestro also supports the reuse and treatment of its materials in accordance with economic and environmental criteria. Some of the waste created by our production processes with a high heating value is burned as fuel to generate steam for our production facilities.

Our commitment to the topic of sustainability plays an increasingly vital role with regard to the purchasing of packaging materials. The responsible unit has implemented measures to address this, including establishing a new procedure in the packaging procurement process. This allows Covestro to now review whether and to what extent used or reconditioned packaging can be used in the place of new packaging. For instance, Covestro uses PCR (post consumer regrind) plastic barrels for waste transportation. Drums made of recycled polyethylene (PE) replace PE drums from newly produced material. Thus, Covestro uses fewer raw materials, reduces emissions and has established the initial building blocks for a circular economy in the area of transport and packaging.

Covestro supports initiatives such as Operation Clean Sweep® (OCS), which focus on preventing plastic particles from entering waterways and oceans. We have introduced global measures to minimize as best as possible the loss of plastic pellets on the way from production to the finished product at our customers' locations. In 2018, we once again urged our partners in the supply chain to join the initiative, while at the same time continually monitoring our own progress. In 2019, we would like to further strengthen our commitment to the OCS initiative and provide additional encouragement to our supply chain partners.



10. Product Stewardship

For more information,
see section 10 in
the GRI Supplement

Product stewardship for Covestro means the comprehensive evaluation of health, safety and environmental risks. We want to ensure that our products are safe throughout their entire life cycle – from research, production, marketing and use by the customer through to disposal.

Monitoring the quality of our products and their suitability for particular applications is anchored in the operational units. Safe transportation, training for specifically regulated applications and marketability are centrally managed at Covestro. The obligation to report to the Board of Management is also allocated to these central offices.

The safe use and application of our products has high priority. It is therefore important to convey product safety information transparently and comprehensively. In addition to the legally required documentation, we also provide further information. What's more, we offer corresponding training in line with the Global Product Strategy of the International Council of Chemical Associations (ICCA). Furthermore, experts in all areas of the company work closely with suppliers, customers, industry associations and the public. Covestro aims to ensure the effective communication and observance of health, safety and environmental information along the supply chain.

Management of product stewardship

Product stewardship involves both compliance with statutory requirements and voluntary commitment. Here we also take into account the precautionary principle as explained in Principle 15 of the Rio Declaration of the United Nations and communication COM(2000) 1 of the European Commission.

The precautionary principle is an important means of protecting consumers and the environment within the context of risk management. It may be applicable if, according to an objective and comprehensive scientific evaluation, material or irreversible harm to people and the environment may occur, but the risk of this cannot be established with sufficient certainty. In this, we follow the general principles of the European Commission for application of the precautionary principle. These include especially the proportionality of the measures taken, examination of the benefits and costs of all relevant options, and review of the measures taken in light of new scientific developments.

In particular, arbitrary decisions cannot be justified by invoking the precautionary principle.

As a contribution to the safe handling and use of chemicals, risk assessments are carried out applying recognized scientific principles such as those described by the European Chemicals Agency (ECHA) in its Guidance on Information Requirements and Chemical Safety Assessment. A determination is made based on a hazard assessment and exposure estimation as to which additional information is required for the risk characterization of a product.

A product safety assessment at Covestro takes place in several steps. First, we identify chemicals that are subject to statutory regulations and document the corresponding regulation. We then examine the risk potential of our products.

Should the assessment or new findings reveal that it is not safe to use a certain chemical, we take the necessary steps to mitigate risks. Such steps can range from technical measures such as protective gear and revised application recommendations to the withdrawal of support for a certain application and substitution of a substance. In this case, an adequate replacement must be sought which can be produced in a technically and economically feasible way.

Finally, we produce the legally required material safety data sheets, technical information sheets and labeling for the chemicals. We also compile these documents for chemicals that are not subject to this legal obligation, whereby we go beyond the statutory requirements. All product groups undergo this process.

All information about the safe and compliant use of our products is documented and analyzed, and thus provides a jumping-off point for further improvements. This includes product monitoring and reporting on product-related and compliance incidents. Our global regulations contain rules and guidance on when and how this information is to be used.

Fundamentally, the optimization of products and processes is an ongoing task of the chemical industry and is integral to our commitments as part of the Responsible Care initiative. We also participate in the further development of scientific risk assessments through our involvement in associations and initiatives.

International associations such as the European Chemical Industry Council (CEFIC) and the International Council of Chemical Associations (ICCA) are working to improve the scientific assessment of chemicals and research new testing methods. Moreover, they monitor implementation of legal regulations. Covestro is actively involved in industry association activities. We also endorse the initiatives of the World Health Organization (WHO) and the EU to improve health and the environment, for example with the further development of human biomonitoring through an alliance with the German Chemical Industry Association (Verband der Chemischen Industrie, VCI) and the German Federal Ministry of the Environment.

Implementation of regulations and voluntary programs pertaining to chemicals

Covestro adheres to the applicable regulations pertaining to chemicals, such as the regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in Europe and the Toxic Substances Control Act (TSCA) in the United States. These regulations are aimed at protecting human health and the environment from the risks posed by chemicals and shape our activities as a manufacturer, importer and user of chemicals. We have established internal regulations to adequately address the scope and complexity of the relevant requirements.

Substances registered according to REACH are assessed by regulators. This can result, for example, in additional testing requirements, new risk management measures, or inclusion in the REACH authorization procedure. A number of Covestro substances are also affected by this procedure, which restricts the use of particularly hazardous substances or can lead to their replacement or prohibition. The planned restriction on diisocyanates currently being discussed in EU committees is one example of a potential restriction. Although diisocyanates will still be available on the market, their use in the workplace will require specific training and the implementation of (risk) management measures in the future. Following a special examination of diisocyanate applications, it is possible to be excluded from this restriction. Covestro supports this measure and advocates a practical and effective arrangement, for example regarding the preparation of training materials.

Covestro continues to pursue the goal of completing the assessment of the hazard potential for all substances used around the world in quantities exceeding one metric ton per annum by 2020. We thus exceed statutory requirements. In addition, we ensure that substance assessments comparable to those meeting the high standards of REACH or the TSCA will also be applied at Covestro sites that are not subject to these regulations. The relevant procedure is established in the Group Regulation "Product Stewardship" in the annex entitled "Substance Information and Availability." In accordance with the European guideline on the classification and labeling substances (CLP Regulation), we revised our assessment procedure last year and added new endpoints of particular relevance for the application of Covestro products. This results in a temporarily lower assessment rate; however, actively addressing the matter will ultimately allow us to further improve our substance information availability in the long term. When it comes to purchased substances, we are dependent on information provided by our suppliers. In this regard, however, we expect that the availability of data will also continue to be limited in the future, particularly outside of the EU.

Another example of our commitment to Responsible Care is the worldwide support we provide for customers for safely handling large quantities of reactive products through tank-farm safety assessments.

We support the Global Product Strategy (GPS), a voluntary commitment by the chemical industry initiated by the ICCA. Its objective is to improve knowledge about chemical products, especially in emerging and developing countries, and thus increase safety in the handling of these products. The ICCA has established an information portal through which summarized details on products are made available. GPS is accessible at Covestro through the Product Safety First internet portal and is available worldwide. On this website, we inform customers and other interest groups about safety-relevant properties and the safe handling of our products.

Substances that are the subject of public debate

Covestro is following the scientific discussion about the chemical bisphenol A (BPA), a main feedstock for various plastics. Critics, but also some authorities, are concerned that risks could result for users and the environment if traces of BPA are released from products. At this time, these concerns are primarily being addressed under the European chemical regulation REACH.

Based on numerous scientifically valid and high-quality studies, Covestro is confident that BPA can be safely used in its intended areas of application. In the case of food safety, for example, this is supported by the latest evaluations from the responsible European and American authorities, namely the European Food Safety Authority (EFSA) and Food and Drug Administration (FDA). Reflecting this conviction, Covestro is actively working within the framework of regulatory processes to dispel uncertainties and answer open questions.

We continue working to make the discussion more objective based on all of the scientific data and in cooperation with the PlasticsEurope association, the American Chemistry Council (ACC) and the China Petroleum and Chemical Industry Federation (CPCIF). Covestro is involved in the debate, providing information to customers and the public through associations and the Covestro website.

Report on Economic Position

11. Economic Environment

Global economy

At 3.1%, the global economy continued to grow at about the prior-year pace in 2018. In the United States, the economy performed better than in the previous year, mainly driven by expansive fiscal policy, tax reforms and robust job growth. The economy in the European Union remained dynamic despite weaker year-on-year growth as fiscal supports and emerging labor markets boosted domestic demand. In China, economic growth continued, reaching 6.6% over the previous year, and was driven primarily by consumption. However, increasing barriers to trade had a dampening effect.

Economic Environment

	Growth ¹ 2017	Growth ¹ 2018
	%	%
World	+3.2	+3.1
European Union	+2.6	+1.9
of which Germany	+2.5	+1.5
NAFTA	+2.3	+2.7
of which United States	+2.2	+2.9
Asia-Pacific	+5.0	+4.9
of which China	+6.8	+6.6

¹ Real growth of gross domestic product, source: IHS (Global Insight), as of February 2019

Main customer industries⁶

In fiscal 2018, automotive production worldwide dropped around 1%. Despite a decline in sales of some 4%, China remains the most important sales market for the automotive industry. The Eastern Europe and Latin America regions managed to register considerable growth, while North America, Asia, and particularly Western Europe were lower year on year.

In 2018, growth in the global construction industry, at approximately 3%, was weaker than in the previous year. An ongoing recovery in Eastern Europe and Latin America as well as the continued stability of the investment climate in North America were unable to offset the decline in growth in Western Europe and China.

The global electrical, electronics and household appliances industry expanded by some 7% in 2018. Growing approximately 11% on average, the emerging economies continued their positive performance in contrast with weaker growth of some 4% in the industrialized countries.

In 2018, the global furniture industry grew by roughly 2% year over year. All regions saw positive growth rates, although Asia stands out as the main driver at around 4%.

⁶ Covestro's estimate, based on the following sources: LMC Automotive Limited, B+L, CSIL (Centre for Industrial Studies), Oxford Economics

12. Covestro Group Business Development

Covestro Group Key Data

	4th quarter 2017	4th quarter 2018	Change	2017	2018	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth¹	+4.2%	+1.7%		+3.4%	+1.6%	
Sales	3,522	3,272	-7.1	14,138	14,616	+3.4
Change in sales						
Volume	+4.6%	+2.9%		+4.3%	+2.3%	
Price	+17.4%	-9.3%		+16.1%	+4.5%	
Currency	-5.3%	+0.3%		-1.6%	-3.0%	
Portfolio	0.0%	-1.0%		0.0%	-0.4%	
EBITDA	879	293	-66.7	3,435	3,200	-6.8
Depreciation and amortization	151	153	+1.3	627	620	-1.1
EBIT	728	140	-80.8	2,808	2,580	-8.1
Financial result	(27)	(24)	-11.1	(150)	(104)	-30.7
Net income	566	79	-86.0	2,009	1,823	-9.3
Operating cash flows	890	641	-28.0	2,361	2,376	+0.6
Cash outflows for additions to property, plant, equipment and intangible assets	235	278	+18.3	518	707	+36.5
Free operating cash flow	655	363	-44.6	1,843	1,669	-9.4
Net financial debt²				283	348	+23.0
ROCE				33.4%	29.5%	

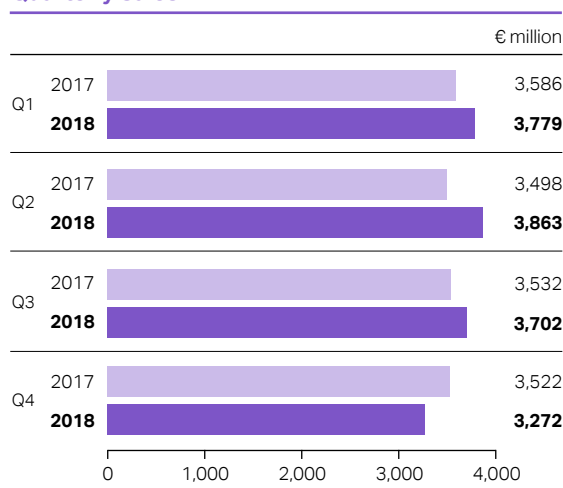
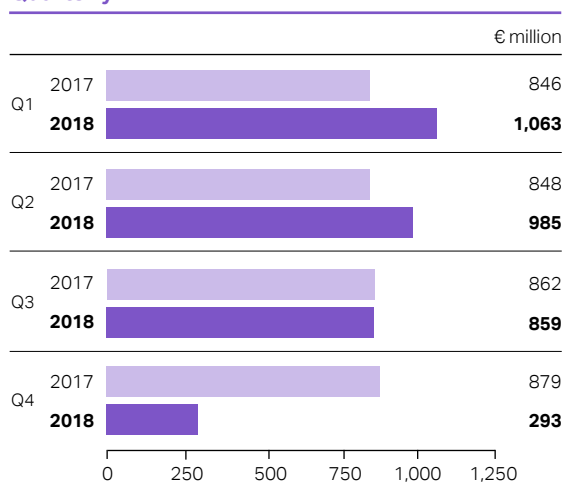
¹ Reference values calculated based on the definition of the core business effective March 31, 2018

² As of December 31, 2018, compared with December 31, 2017

The Group's core volumes in 2018 as a whole rose 1.6% over the prior-year period. All segments contributed to this growth. The Polycarbonates and Coatings, Adhesives, Specialties segments reported growth rates of 3.0% and 2.5%, respectively. The Polyurethanes segment expanded core volumes by 0.8%.

In fiscal 2018, Group sales rose 3.4% year over year to €14,616 million (previous year: €14,138 million). This is largely due to higher selling prices, which were up 4.5% on average. The increase in total volumes sold had a positive effect of 2.3% on sales. In contrast, the effects of exchange rate developments had a negative impact on sales with 3.0%. The portfolio effect from the sale of the U.S. sheet business in the Polycarbonates segment additionally reduced sales by 0.4%.

In 2018, growth in Group sales was driven chiefly by the Polycarbonates segment. Sales here rose 8.4% to €4,051 million (previous year: €3,737 million). Sales of Coatings, Adhesives, Specialties increased by 1.5% to €2,361 million (previous year: €2,327 million) and the Polyurethanes segment remained stable at €7,362 million (previous year: €7,386 million).

**Covestro Group
Quarterly Sales****Covestro Group
Quarterly EBITDA**

The Group's EBITDA in 2018 as a whole decreased 6.8% over the prior-year period to €3,200 million (previous year: €3,435 million). This drop was primarily due to significantly more intense competition, which led to substantially lower margins in the fourth quarter of 2018. In addition, this period saw various nonrecurring expenses, such as higher logistics costs due to the low level of the Rhine River and expenses related to the Perspective efficiency program. In the full year 2018, higher volumes and the change in margins, which was still positive on the whole, were unable to balance out the negative effects of exchange rate movements and increases in other functional cost items.

In the Polyurethanes segment, EBITDA slid 19.1% to €1,763 million (previous year: €2,179 million). The Polycarbonates segment's EBITDA rose 21.5% to €1,036 million (previous year: €853 million). At €464 million, EBITDA in the Coatings, Adhesives, Specialties segment was down 4.5% on the prior-year figure (previous year: €486 million).

Depreciation, amortization and impairments for 2018 as a whole decreased 1.1% to €620 million (previous year: €627 million). They comprised €599 million (previous year: €602 million) in depreciation and impairments of property, plant and equipment and €21 million (previous year: €25 million) in amortization and impairments of intangible assets. These included impairment losses totaling €7 million (previous year: €6 million). There were no impairment loss reversals in fiscal 2018 (previous year: €18 million).

In the 2018 fiscal year, the Covestro Group's EBIT dropped 8.1% to €2,580 million (previous year: €2,808 million).

Taking into account a financial result of minus €104 million (previous year: minus €150 million), income before income taxes declined 6.8% from the prior-year period to €2,476 million (previous year: €2,658 million). After tax expense of €647 million (previous year: €641 million), income after income taxes was €1,829 million (previous year: €2,017 million). After noncontrolling interests, net income amounted to €1,823 million (previous year: €2,009 million).

At €2,376 million, operating cash flows remained at the previous year's level in fiscal 2018 (previous year: €2,361 million). A decline in EBITDA and increased income tax payments stood in contrast to a decrease in cash tied up in working capital.

In the reporting period, free operating cash flow was down 9.4% to €1,669 million (previous year: €1,843 million) due to a rise in cash outflows for additions to property, plant, equipment and intangible assets. These outflows totaled €707 million in 2018 (previous year: €518 million).

In the 2018 fiscal year, Covestro earned a substantial premium on its capital costs. The ROCE of 29.5% (previous year: 33.4%) was well under the WACC of 6.7% (previous year: 6.6%). At €1,474 million, however the resulting positive value contribution fell below the prior-year figure of €1,710 million.

Covestro Value Management Indicators at a Glance

	2017	2018
	€ million	€ million
NOPAT	2,131	1,907
Average capital employed	6,378	6,468
WACC	6.6%	6.7%
ROCE	33.4%	29.5%
Value contribution	1,710	1,474



See section 17
"Alternative
Performance
Measures"

Calculation of return on capital employed

ROCE measures profitability and is calculated as the ratio of the operating result (EBIT) after taxes (NOPAT = net operating profit after taxes) to the average capital employed. Taxes are determined by multiplying the effective tax rate by EBIT. If ROCE exceeds the weighted average cost of capital (WACC), the company is earning a premium on its cost of capital.

This is the difference between NOPAT and the cost of capital. The latter is calculated by multiplying the average capital employed by WACC. A positive value contribution means that value has been generated.

Target Attainment

The Covestro Group's fiscal year was successful on the whole. However, the very positive business performance in the first six months was followed by progressive weakening throughout the rest of the year. In the first half of the year, the MDI and TDI product groups and the PCS segment generated record-breaking margins, largely due to a positive supply/demand situation. Increasing competitive pressure in the fourth quarter of 2018 led to a massive decrease in margins, especially in the Polyurethanes segment. In addition, earnings were diminished by nonrecurring expenses such as logistics costs due to the low level of the Rhine River and expenses related to the Perspective efficiency program. As a result of this development, the forecast lifted in July 2018 had to be adjusted on November 20, 2018.

Target Attainment 2018

	2017	Forecast 2018 ¹	Latest forecast ²	Target attainment 2018
Core volume growth	+3.4%	Low- to mid-single-digit-percentage range	Low-single-digit-percentage range	+ 1.6%
Free operating cash flow	€1,843 million	Significantly above the average of the last three years ³	Slightly below the previous year	€1,669 million
ROCE	+33.4%	Approaching the 2017 level	Slightly below the 2017 level	+ 29.5%

¹ Published on February 20, 2018 (Annual Report 2017)

² Published on November 20, 2018 (ad-hoc statement)

³ Average free operating cash flow from 2015 to 2017: €1,391 million

At 1.6%, our core volume growth met our forecast target. All segments further expanded core volumes compared with the previous year. In line with the most recent projection, free operating cash flow and ROCE fell slightly below the prior-year figures. Overall we generated a significant premium on capital costs, as in the previous year.

13. Business Development by Segment

Polyurethanes

Polyurethanes Key Data¹

	4th quarter 2017	4th quarter 2018	Change	2017	2018	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth²	+5.3%	+2.3%		+3.1%	+0.8%	
Sales	1,876	1,597	-14.9	7,386	7,362	-0.3
Change in sales						
Volume	+6.9%	+2.5%		+3.5%	+0.9%	
Price	+26.2%	-17.6%		+28.2%	+1.9%	
Currency	-5.8%	+0.2%		-1.8%	-3.1%	
Portfolio	0.0%	0.0%		0.0%	0.0%	
Sales by region						
EMLA	787	678	-13.9	3,147	3,182	+1.1
NAFTA	442	474	+7.2	1,868	1,947	+4.2
APAC	647	445	-31.2	2,371	2,233	-5.8
EBITDA	612	111	-81.9	2,179	1,763	-19.1
EBIT	529	27	-94.9	1,826	1,412	-22.7
Operating cash flows	595	393	-33.9	1,352	1,386	+2.5
Cash outflows for additions to property, plant, equipment and intangible assets	126	171	+35.7	276	414	+50.0
Free operating cash flow	469	222	-52.7	1,076	972	-9.7

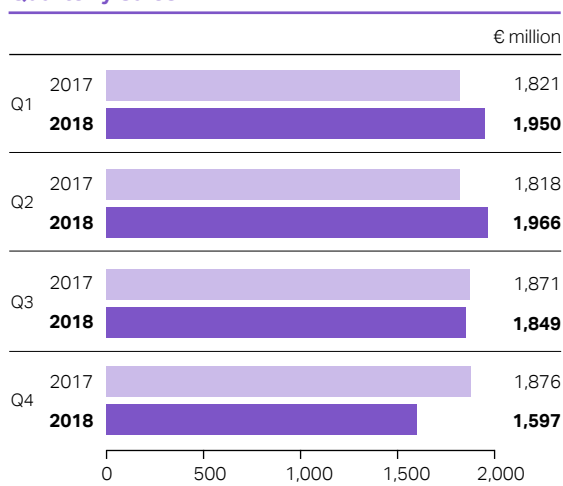
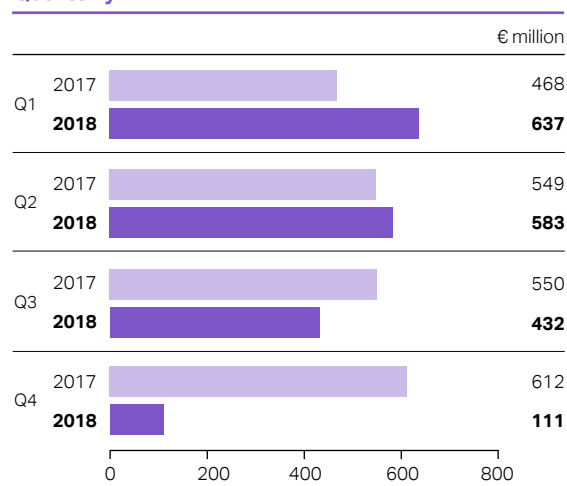
¹ All prior-year figures have been adjusted to reflect the transfer of the specialty elastomers business from the Polyurethanes segment to the Coatings, Adhesives, Specialties segment as of January 1, 2018.

² Reference values calculated based on the definition of the core business effective March 31, 2018

In 2018 as a whole, core volumes in Polyurethanes rose by 0.8% over the prior-year period.

At €7,362 million, the Polyurethanes segment's sales remained stable year-on-year (previous year: €7,386 million). The increases in total volumes sold of 0.9% and average selling prices of 1.9% largely balanced out exchange rate movements, which reduced sales by 3.1%.

In the EMLA region, sales rose by 1.1% to €3,182 million (previous year: €3,147 million). Slightly higher selling price levels and stable total volumes more than offset mildly negative exchange rate changes. The NAFTA region's sales grew 4.2% to €1,947 million (previous year: €1,868 million). A significant increase in average selling prices more than compensated for strongly negative currency effects. Total volumes sold in the region remained stable. Sales in the APAC region declined 5.8% to €2,233 million (previous year: €2,371 million). This was due to a modest decrease in selling price levels and a slightly negative trend in exchange rates. In contrast, total volumes sold increased somewhat.

**Polyurethanes
Quarterly Sales¹****Polyurethanes
Quarterly EBITDA¹**

¹ All prior-year figures have been adjusted to reflect the transfer of the specialty elastomers business from the Polyurethanes segment to the Coatings, Adhesives, Specialties segment as of January 1, 2018.

EBITDA was down 19.1% from the prior-year period, dropping to €1,763 million (previous year: €2,179 million). Although greater total volumes and higher average selling prices in 2018 improved earnings, these increases could not offset the negative effects of increasingly intense competition and consequently lower margins, particularly in the fourth quarter of 2018. In addition, the 2017 earnings reflected significant one-time revenue streams.

EBIT dropped to €1,412 million (previous year: €1,826 million).

Free operating cash flow amounted to €972 million, down 9.7% from the prior-year figure of €1,076 million. The lower EBITDA and higher cash outflows for additions to property, plant and equipment stood in contrast to the greater availability of working capital, particularly in trade accounts receivable.

Polycarbonates

Polycarbonates Key Data

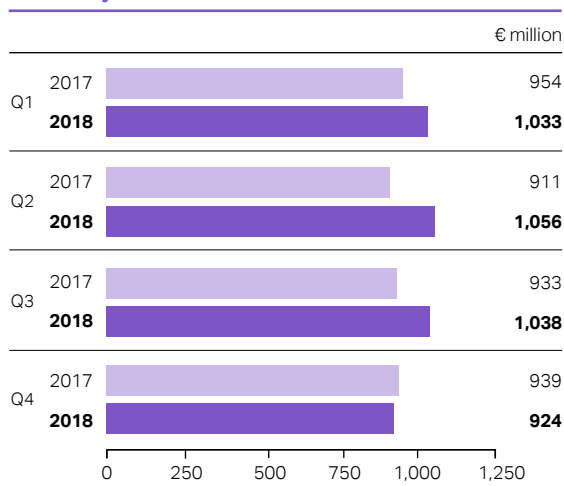
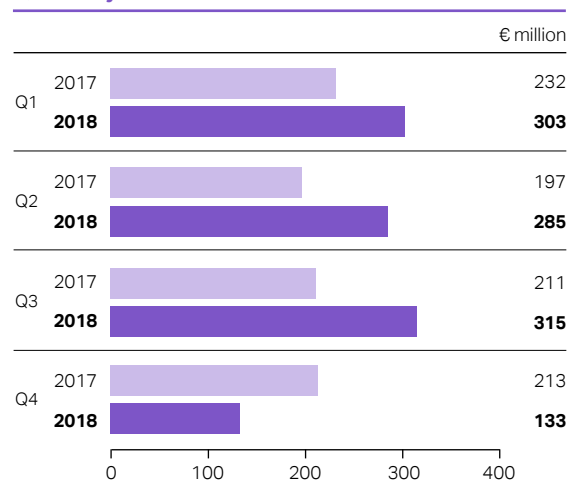
	4th quarter 2017	4th quarter 2018	Change	2017	2018	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth¹	+3.7%	+1.6%		+5.0%	+3.0%	
Sales	939	924	-1.6	3,737	4,051	+8.4
Change in sales						
Volume	+5.2%	+4.2%		+7.1%	+3.8%	
Price	+13.1%	-2.3%		+8.0%	+9.7%	
Currency	-5.6%	+0.3%		-1.8%	-3.4%	
Portfolio	0.0%	-3.8%		0.0%	-1.7%	
Sales by region						
EMLA	315	301	-4.4	1,241	1,347	+8.5
NAFTA	206	200	-2.9	874	817	-6.5
APAC	418	423	+1.2	1,622	1,887	+16.3
EBITDA	213	133	-37.6	853	1,036	+21.5
EBIT	169	88	-47.9	672	861	+28.1
Operating cash flows	245	235	-4.1	476	654	+37.4
Cash outflows for additions to property, plant, equipment and intangible assets	74	70	-5.4	155	186	+20.0
Free operating cash flow	171	165	-3.5	321	468	+45.8

¹ Reference values calculated based on the definition of the core business effective March 31, 2018

In 2018 as a whole, core volumes in the Polycarbonates segment were up 3.0% over the prior-year period.

Sales in the Polycarbonates segment rose 8.4% to €4,051 million in fiscal 2018 (previous year: €3,737 million). The key driver here was the year-on-year increase in selling price levels throughout all regions, which boosted sales by 9.7%. Higher total volumes had a positive effect of 3.8% on sales, whereas exchange rate developments lowered sales by 3.4%. Moreover, the portfolio effect from the sale of the U.S. polycarbonate sheet business also reduced sales by 1.7%.

The EMLA region's sales were up 8.5% to €1,347 million (previous year: €1,241 million). A significantly higher selling price level and moderate increase in total volumes had a positive impact on sales. The effect of exchange rate movements remained neutral. In the NAFTA region, sales dropped 6.5% to €817 million (previous year: €874 million), chiefly due to the aforementioned portfolio effect, which caused sales in the region to decline considerably. A substantial rise in average selling prices and stable total volumes sold combined to boost sales, whereas exchange rate changes had a slightly negative effect. The APAC region saw sales grow 16.3% to €1,887 million (previous year: €1,622 million). Much higher selling prices and total volumes offset the mildly negative currency effects.

**Polycarbonates
Quarterly Sales****Polycarbonates
Quarterly EBITDA**

EBITDA in the Polycarbonates segment grew 21.5% over the prior-year period, rising to €1,036 million in fiscal 2018 (previous year: €853 million). An overall positive margins trend and greater total volumes lifted earnings, as did the proceeds from the sale of the U.S. sheet business. Over the course of the fourth quarter of 2018, earnings were burdened by an increasingly challenging competitive environment.

EBIT rose by 28.1% to €861 million (previous year: €672 million).

Free operating cash flow rose 45.8% year over year to €468 million (previous year: €321 million), mostly as a result of the improvement in EBITDA. An overall greater availability of working capital also had a positive effect, whereas higher cash outflows for additions to property, plant and equipment had the opposite effect.

Coatings, Adhesives, Specialties

Coatings, Adhesives, Specialties Key Data¹

	4th quarter 2017	4th quarter 2018	Change	2017	2018	Change
	€ million	€ million	%	€ million	€ million	%
Core volume growth²	-1.0%	-1.8%		+1.5%	+2.5%	
Sales	529	534	+0.9	2,327	2,361	+1.5
Change in sales						
Volume	-2.1%	+0.3%		+1.8%	+3.5%	
Price	+3.1%	0.0%		+1.3%	+0.6%	
Currency	-4.3%	+0.6%		-1.1%	-2.6%	
Portfolio	0.0%	0.0%		0.0%	0.0%	
Sales by region						
EMLA	241	240	-0.4	1,085	1,117	+2.9
NAFTA	111	129	+16.2	510	519	+1.8
APAC	177	165	-6.8	732	725	-1.0
EBITDA	80	63	-21.3	486	464	-4.5
EBIT	56	39	-30.4	396	371	-6.3
Operating cash flows	142	107	-24.6	336	309	-8.0
Cash outflows for additions to property, plant, equipment and intangible assets	37	36	-2.7	87	106	+21.8
Free operating cash flow	105	71	-32.4	249	203	-18.5

¹ All prior-year figures have been adjusted to reflect the transfer of the specialty elastomers business from the Polyurethanes segment to the Coatings, Adhesives, Specialties segment as of January 1, 2018.

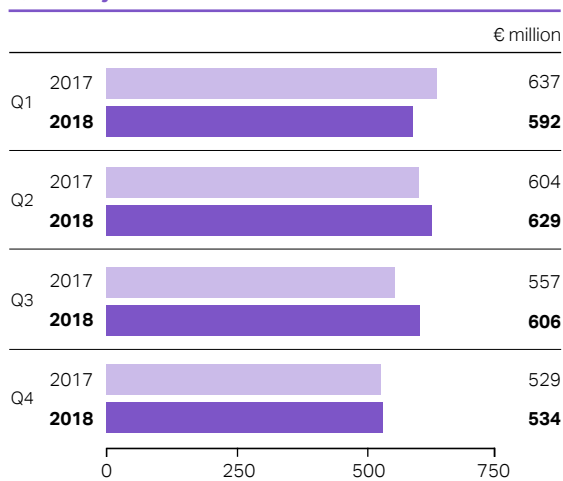
² Reference values calculated based on the definition of the core business effective March 31, 2018

In 2018 as a whole, core volumes in Coatings, Adhesives, Specialties rose by 2.5% over the prior year.

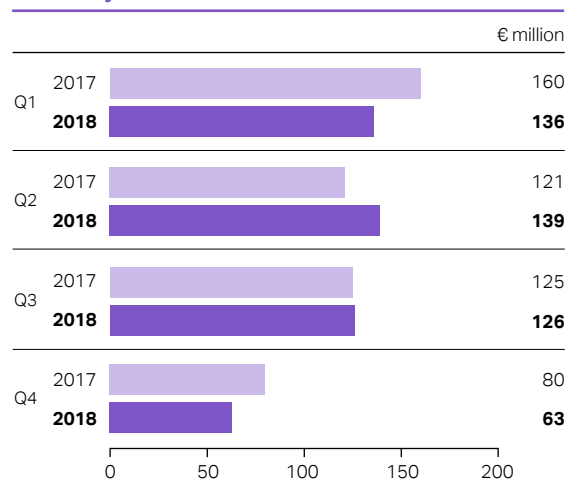
Sales of Coatings, Adhesives, Specialties increased 1.5% to €2,361 million (previous year: €2,327 million). Total volumes lifted sales by 3.5%, while average selling prices had a positive effect of 0.6% on sales. Exchange rate movements reduced sales by 2.6%.

In the EMLA region, sales were up 2.9% to €1,117 million (previous year: €1,085 million) due to a slight increase in total volumes and modestly higher selling prices. The effect of exchange rate developments remained neutral. In the NAFTA region, sales grew 1.8% to €519 million (previous year: €510 million). Minor increases in total volumes and average selling prices more than compensated for slightly negative currency effects. Sales in the APAC region declined 1.0% to €725 million (previous year: €732 million). A sharp rise in total volumes sold only partially offset the somewhat lower selling price level and moderately negative developments in exchange rates.

Coatings, Adhesives, Specialties Quarterly Sales¹



Coatings, Adhesives, Specialties Quarterly EBITDA¹



¹ All prior-year figures have been adjusted to reflect the transfer of the specialty elastomers business from the Polyurethanes segment to the Coatings, Adhesives, Specialties segment as of January 1, 2018.

EBITDA was down 4.5% from the previous year's figure, dropping to €464 million (previous year: €486 million). Higher volumes were unable to fully offset the rise in raw material costs and negative currency effects.

EBIT declined 6.3% to €371 million (previous year: €396 million).

Free operating cash flow decreased 18.5% to €203 million (previous year: €249 million). This was chiefly due to lower EBITDA and an increase in cash tied up in working capital.

14. Results of Operations

Covestro Group Summary Income Statements

	2017	2018	Change
	€ million	€ million	%
Sales	14,138	14,616	+3.4
Cost of goods sold	(9,308)	(9,918)	+6.6
Selling expenses	(1,352)	(1,408)	+4.1
Research and development expenses	(274)	(276)	+0.7
General administration expenses	(481)	(491)	+2.1
Other operating expenses (–) and income (+)	85	57	–32.9
EBIT	2,808	2,580	–8.1
Financial result	(150)	(104)	–30.7
Income before income taxes	2,658	2,476	–6.8
Income taxes	(641)	(647)	+0.9
Income after income taxes	2,017	1,829	–9.3
of which attributable to noncontrolling interest	8	6	–25.0
of which attributable to Covestro AG stockholders (net income)	2,009	1,823	–9.3

Group sales in the reporting year rose 3.4% to €14,616 million (previous year: €14,138 million).

There was a 6.6% increase in the cost of goods sold to €9,918 million (previous year: €9,308 million). The ratio of the cost of goods sold to sales increased to 67.9% (previous year: 65.8%).

Selling expenses were up 4.1% to €1,408 million (previous year: €1,352 million), yielding a ratio of selling expenses to sales of 9.6% (previous year: 9.6%). Research and development (R&D) expenses of €276 million were at the prior-year level (previous year: €274 million). The ratio of R&D expenses to sales was 1.9%, as in the previous year. The assets were used mainly for developing new application solutions for our products and improving products and process technologies. The R&D projects are aligned to sustainability aspects.

General administration expenses saw an increase of 2.1% to €491 million (previous year: €481 million). Other operating income exceeded other operating expenses by €57 million (previous year: €85 million). This development was primarily driven by the proceeds from the sale of the U.S. sheet business in the Polycarbonates segment totaling €36 million.

In the reporting period, EBIT amounted to €2,580 million, down 8.1% (previous year: €2,808 million). As a result, the EBIT margin decreased to 17.7% (previous year: 19.9%).

The financial result of minus €104 million (previous year: minus €150 million) was influenced mainly by the net interest expense of minus €47 million (previous year: minus €99 million). Including the financial result, income before income taxes declined 6.8% to €2,476 million (previous year: €2,658 million). The income tax expense of €647 million hovered around the prior-year level (previous year: €641 million). After taxes and noncontrolling interests, net income was down 9.3% and amounted to €1,823 million (previous year: €2,009 million).

15. Financial Position

Covestro Group Summary Statement of Cash Flows

	4th quarter 2017	4th quarter 2018	2017	2018
	€ million	€ million	€ million	€ million
EBITDA	879	293	3,435	3,200
Income taxes paid	(241)	(69)	(510)	(574)
Change in pension provisions	4	8	17	26
(Gains) losses on retirements of noncurrent assets	–	(10)	(45)	(45)
Change in working capital/other noncash items	248	419	(536)	(231)
Cash flows from operating activities	890	641	2,361	2,376
Cash outflows for additions to property, plant, equipment and intangible assets	(235)	(278)	(518)	(707)
Free operating cash flow	655	363	1,843	1,669
Cash flows from investing activities	(72)	(254)	(747)	(346)
Cash flows from financing activities	(219)	(373)	(634)	(2,402)
Change in cash and cash equivalents due to business activities	599	14	980	(372)
Cash and cash equivalents at beginning of period	637	846	267	1,232
Change in cash and cash equivalents due to exchange rate movements	(4)	5	(15)	5
Cash and cash equivalents at end of period	1,232	865	1,232	865

At €2,376 million, operating cash flows remained at the previous year's level (previous year: €2,361 million). A decrease in cash tied up in working capital stood in contrast to a decline in EBITDA and increased income tax payments. Due to increased cash outflows for additions to property, plant, equipment and intangible assets, free operating cash flow decreased to €1,669 million (previous year: €1,843 million).

Capital expenditures in 2018 were targeted at plant maintenance and improvement, as well as especially in new capacities for the three segments. The strategically relevant capital expenditures in property, plant and equipment pertained to the expansion of MDI capacities in Brunsbüttel, Germany, and Tarragona, Spain, at Polyurethanes; the expansion of capacities at the site in Shanghai, China, at Polycarbonates; and the expansion of global production capacities for Specialty Films at Coatings, Adhesives, Specialties.

Net cash outflow for investing activities in 2018 totaled €346 million (previous year: €747 million). Cash outflows for additions to property, plant, equipment and intangible assets of €707 million (previous year: €518 million) stood in contrast to net cash provided by current financial assets.

Net cash outflow for the Covestro Group's financing activities in 2018 amounted to €2,402 million (previous year: €634 million). The cash outflows mainly relate to the acquisition of treasury shares in the amount of €1,313 million, the redemption of the first tranche of the bond program totaling €500 million and Covestro AG's dividend distribution of €436 million.

Net Financial Debt

	Dec. 31, 2017	Dec. 31, 2018
	€ million	€ million
Bonds	1,495	996
Liabilities to banks	69	24
Liabilities under finance leases	223	193
Liabilities from derivatives	9	12
Receivables from derivatives	(15)	(12)
Financial liabilities	1,781	1,213
Cash and cash equivalents	(1,232)	(865)
Current financial assets	(266)	–
Net financial debt	283	348

Net financial debt increased by €65 million in fiscal 2018 to €348 million (previous year: €283 million). The net cash used in the aforementioned investing and financing activities exceeded the cash flow from operating activities and therefore reduced total cash and equivalents.

Financial management

The main purpose of financial management is to ensure solvency at all times, continuously optimize capital costs and reduce the risks of financing measures. Financial management for the Covestro Group is performed centrally by Covestro AG.

Covestro AG currently holds a Baa1 investment-grade rating with a stable outlook from the rating agency Moody's Investors Service, London (United Kingdom).

Covestro AG operates a Debt Issuance Program as a framework with a total volume of €5,000 million to facilitate obtaining flexible financing from the capital market. The company is thus in the position to issue fixed- and variable-rate bonds as well as to undertake private placements.

Under the program, Covestro AG successfully placed three bonds with a total volume of €1,500 million on March 3, 2016. The bonds comprise two fixed-rate tranches with terms until October 2021 (a coupon of 1.00% and a volume of €500 million) and September 2024 (a coupon of 1.75% and a volume of €500 million). A variable-rate tranche with a volume of €500 million and a coupon of 0.60 percentage points above the three-month Euribor was redeemed in March 2018 as planned. The outstanding bonds are valued at Baa1 by Moody's Investors Service.

The liquidity acquired in this way is intended to be used for general financing needs. Covestro AG agreed a syndicated revolving credit facility with a banking consortium totaling €1,500 million with a term until September 2022. No loans had been drawn against this syndicated credit facility as of December 31, 2018.

The Covestro Group pursues a prudent debt management strategy to ensure flexibility, drawing on a balanced financing portfolio. This portfolio will be based for the most part on bonds, syndicated credit facilities and bilateral loan agreements.

As a company with international operations, Covestro is exposed to financial opportunities and risks. These are continuously monitored within the context of Covestro's financial management activities. Derivative financial instruments are used to minimize risks.

Please see section 21 "Opportunities and Risks Report" for further details of financial opportunities and risks.

16. Net Assets

Covestro Group Summary Statement of Financial Position

	Dec. 31, 2017	Dec. 31, 2018
	€ million	€ million
Noncurrent assets	5,606	5,801
Current assets	5,735	5,283
Total assets	11,341	11,084
Equity	5,365	5,375
Noncurrent liabilities	2,885	3,126
Current liabilities	3,091	2,583
Liabilities	5,976	5,709
Total equity and liabilities	11,341	11,084

Total assets declined by €257 million compared with December 31, 2017, to €11,084 million as of December 31, 2018 (previous year: €11,341 million).

Noncurrent assets increased by €195 million to €5,801 million (previous year: €5,606 million) and accounted for 52.3% (previous year: 49.4%) of total assets. This change was primarily attributable to the increase in value of property, plant and equipment by €113 million and the growth in deferred taxes by €80 million. Current financial liabilities declined by €452 million to €5,283 million (previous year: €5,735 million) and therefore accounted for 47.7% (previous year: 50.6%) of total assets. This was due mainly to the decline in cash and cash equivalents and other financial assets.

Equity as of December 31, 2018, increased by €10 million to €5,375 million (previous year: €5,365 million). The equity ratio amounted to 48.5% as of the reporting date (previous year: 47.3%). Income after income taxes was sufficient to offset the equity-reducing effects of the acquisition of treasury shares, the dividend distribution and the remeasurement of pension obligations.

Liabilities were down €267 million as of the reporting date, totaling €5,709 million (previous year: €5,976 million). Provisions for pensions and other post-employment benefits increased by €258 million. Noncurrent financial liabilities decreased by €47 million to €1,166 million (previous year: €1,213 million). Current financial liabilities declined by €524 million to €59 million (previous year: €583 million). The key driver here was the redemption of the first tranche of the bond program totaling €500 million.

Net Defined Benefit Liability for Post-Employment Benefits

	Dec. 31, 2017	Dec. 31, 2018
	€ million	€ million
Net defined benefit liability for post-employment benefits	1,185	1,444

The net defined benefit liability for post-employment benefits (pension obligations less plan assets) increased by €259 million in the reporting year to €1,444 million (previous year: €1,185 million). In this context, pension obligations increased due to the negative performance of the plan assets and to actuarial losses, particularly in Germany on account of adjustments to the mortality tables and a reduction in the discount rate.

17. Alternative Performance Measures

Throughout its financial reporting, Covestro uses alternative performance measures (APMs) to assess the business performance of the Group. These are not defined in the International Financial Reporting Standards (IFRSs). They should be considered a supplement to, not a replacement for, the performance measures determined in accordance with IFRSs. The calculation methods and reconciliation of the non-IFRS sales and earnings APMs to the figures reported in the financial statements are presented below. The calculation methods for the APMs may vary from those of other companies, thus limiting the extent of the overall comparability. These alternative performance measures should not be viewed in isolation or employed as an alternative to the financial indicators determined in accordance with IFRSs and presented in the consolidated financial statements for purposes of assessing Covestro's net assets, financial position and results of operations.

The following are the alternative performance measures relevant to the Covestro Group:

- EBITDA
- Return on capital employed (ROCE)
- Free operating cash flow (FOCF)
- Net financial debt

Covestro uses ROCE to assess profitability in the context of the company's internal management system. EBITDA is also calculated as an additional indicator of profitability. FOCF is a key factor in the presentation of the liquidity position that indicates the company's ability to generate a cash surplus and finance its activities. Net financial debt gauges the Group's financial condition and financing requirements.

EBITDA

EBIT is a measure used in the calculation of EBITDA. EBIT represents the share of the income after income taxes plus financial result and income tax expense attributable to Covestro's core business after elimination of the influence of variable tax rates and/or various financing activities.

Calculation of EBIT

	2017	2018
	€ million	€ million
Sales	14,138	14,616
Cost of goods sold	(9,308)	(9,918)
Gross profit	4,830	4,698
Selling expenses	(1,352)	(1,408)
Research and development expenses	(274)	(276)
General administration expenses	(481)	(491)
Other operating income	145	123
Other operating expenses	(60)	(66)
EBIT	2,808	2,580
Financial result	(150)	(104)
Income before income taxes	2,658	2,476
Income taxes	(641)	(647)
Income after income taxes	2,017	1,829

EBITDA is EBIT plus amortization and impairment losses on intangible assets, and depreciation and impairment losses on property, plant and equipment, less impairment loss reversals. In addition, EBITDA is adjusted for possible distortions arising from various depreciation/amortization methods and measurement options, and therefore represents earnings from operating business activities.

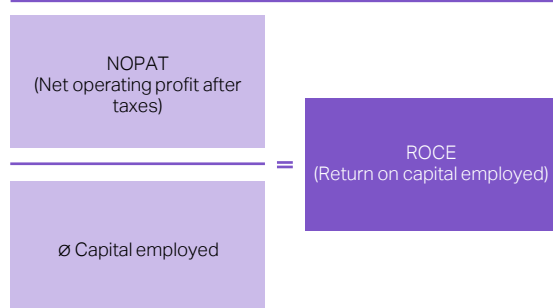
Calculation of EBITDA

	2017	2018
	€ million	€ million
EBIT	2,808	2,580
Depreciation, amortization, impairment losses and impairment loss reversals	627	620
EBITDA	3,435	3,200

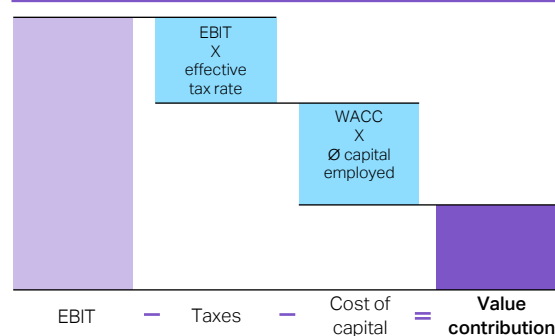
Return on capital employed (ROCE)

The foremost objective of the Covestro Group is to steadily increase enterprise value. Value is generated if Group earnings exceed the cost of capital. Covestro uses return on capital employed (ROCE) as the central value-based management metric. ROCE measures profitability and is calculated as the ratio of EBIT, adjusted for special items as needed, after taxes (NOPAT = net operating profit after taxes) to the average capital employed. If ROCE exceeds the weighted average cost of capital (WACC), the company is earning a premium on its cost of capital.

Calculation of the Return on Capital Employed



Calculation of the Value Contribution



Calculation of average capital employed

The capital employed is the interest-bearing capital required by the company for its operations. It is calculated from operating noncurrent and current assets less non-interest-bearing liabilities. Non-interest-bearing liabilities include, for example, trade accounts payable and current provisions. The average capital employed is determined using the capital employed at the beginning and end of the relevant period.

Calculation of Average Capital Employed

	Dec. 31, 2016/Jan. 01, 2017 ¹	Dec. 31, 2017 ¹	Effects of IFRS 9 and IFRS 15	Jan. 01, 2018	Dec. 31, 2018
	€ million	€ million	€ million	€ million	€ million
Goodwill	264	253	–	253	256
Other intangible assets	97	81	–	81	77
Property, plant and equipment	4,655	4,296	–	4,296	4,409
Investments accounted for using the equity method	230	208	–	208	214
Other noncurrent financial assets ²	9	8	–	8	8
Other receivables ³	341	297	61	358	361
Deferred taxes ⁴	187	224	4	228	256
Inventories	1,721	1,913	(33)	1,880	2,213
Trade accounts receivable	1,674	1,882	(18)	1,864	1,786
Claims for income tax refunds	119	138	–	138	55
Gross capital employed	9,297	9,300	14	9,314	9,635
Other provisions ⁵	(886)	(755)	28	(727)	(721)
Other liabilities ⁶	(207)	(215)	(65)	(280)	(234)
Deferred tax liabilities ⁷	(157)	(160)	(6)	(166)	(153)
Trade accounts payable	(1,536)	(1,618)	37	(1,581)	(1,637)
Income tax liabilities	(73)	(235)	–	(235)	(279)
Capital employed	6,438	6,317	8	6,325	6,611
Average capital employed		6,378			6,468

¹ Reference information has not been restated, see note 2.1 "Financial Reporting Standards Applied for the First Time in the Reporting Period."

² Other noncurrent financial assets were adjusted for nonoperating and financial assets.

³ Other receivables were adjusted for nonoperating and financial receivables.

⁴ Deferred taxes were adjusted for deferred taxes from defined benefit plans and similar obligations.

⁵ Other provisions were adjusted for provisions for interest payments.

⁶ Other liabilities were adjusted for nonoperating and financial liabilities.

⁷ Deferred tax liabilities were adjusted for deferred tax liabilities from defined benefit plans and similar obligations.

Calculation of the cost of capital

WACC reflects the expected return on the company's capital comprising both equity and debt. The cost of equity factors used in WACC are calculated by addition of the risk-free interest rate and the risk premium for an equity investment. Covestro uses the returns on long-term German government bonds as the risk-free interest rate. We derive this risk premium from capital market information for comparable listed companies. The cost of debt factors are calculated by addition of the risk-free interest rate and a risk premium on debt capital that Covestro calculates using the financing costs of comparable companies, less the tax benefit of interest incurred on borrowed capital. Calculation of the cost of capital generally has a long-term perspective; short-term fluctuations are evened out. The capital cost factor for the Covestro Group was 6.7% in fiscal 2018 (previous year: 6.6%).

Calculation of the net operating profit after taxes (NOPAT) and value contribution

The absolute value generation of the company is measured by the metric value contribution. This is the difference between NOPAT and the cost of capital. The latter is calculated by multiplying the average capital employed by WACC. A positive value contribution means that value has been generated.

NOPAT is the operating result after taxes. Taxes are determined by multiplying the effective tax rate by EBIT.

Calculation of the Net Operating Profit After Taxes and Value Contribution

	2017	2018
	€ million	€ million
EBIT ¹	2,808	2,580
Effective tax rate ²	24.1%	26.1%
Taxes	(677)	(673)
NOPAT	2,131	1,907
WACC	6.6%	6.7%
Average capital employed	6,378	6,468
Cost of capital	(421)	(433)
Value contribution	1,710	1,474
ROCE	33.4%	29.5%

¹ Adjusted EBITDA is not reported because no income or expense items were recognized as special items either in the reporting period or in the corresponding prior-year period.

² The calculation of the effective tax rate is presented in note 11 "Taxes."

Free operating cash flow (FOCF)

FOCF is the operating cash flow less cash outflows for additions to property, plant, equipment and intangible assets. Free operating cash flow serves in particular to pay dividends and interest and to repay debt.

Calculation of Free Operating Cash Flow

	2017	2018
	€ million	€ million
EBITDA	3,435	3,200
Income taxes paid	(510)	(574)
Change in pension provisions	17	26
(Gains) losses on retirements of noncurrent assets	(45)	(45)
Change in other working capital, other noncash items	(536)	(231)
Operating cash flows	2,361	2,376
Cash outflows for additions to property, plant, equipment and intangible assets	(518)	(707)
Free operating cash flow	1,843	1,669

Net financial debt

Net financial debt equals the sum of all financial liabilities less cash and cash equivalents, current financial assets and receivables from financial derivatives.

Net Financial Debt

	Dec. 31, 2017	Dec. 31, 2018
	€ million	€ million
Bonds	1,495	996
Liabilities to banks	69	24
Liabilities under finance leases	223	193
Liabilities from derivatives	9	12
Receivables from derivatives	(15)	(12)
Financial liabilities	1,781	1,213
Cash and cash equivalents	(1,232)	(865)
Current financial assets	(266)	–
Net financial debt	283	348

18. Results of Operations, Financial Position and Net Assets of Covestro AG

Covestro AG is the parent company and strategic management holding company of the Covestro Group. The principal management functions for the entire Group are performed by the Board of Management. These include strategic planning for the Group, resource allocation and executive and financial management. Covestro AG's net assets, financial position and results of operations are largely determined by the business performance of its subsidiaries.

The financial statements of Covestro AG are prepared in accordance with the German Commercial Code (HGB) and Stock Corporation Act (AktG). The company, headquartered in Leverkusen (Germany), is registered in the commercial register of the Local Court of Cologne under No. HRB 85281.

There is a control and profit and loss transfer agreement between Covestro AG and Covestro Deutschland AG, Leverkusen. All profit not subject to a prohibition on transfer is transferred in full to Covestro AG at the end of the year, and losses are absorbed in full. Other retained earnings recognized during the term of the agreement must be released upon request by Covestro AG and used to compensate a net loss for the year or transferred as profit.

18.1 Results of Operations

Covestro AG Income Statements according to the German Commercial Code

	2017	2018
	€ million	€ million
Income from investments in affiliated companies	704	745
Interest expense	(14)	(18)
Other financial income	(4)	(6)
Net sales	26	23
Cost of services provided	(27)	(22)
General administration expenses	(64)	(79)
Other operating income	1	25
Other operating expenses	(3)	(1)
Income before income taxes	619	667
Income taxes	(131)	(171)
Net income	488	496
Retained earnings brought forward from prior year	–	3
Allocation to other retained earnings	(49)	(60)
Distributable profit	439	439

Covestro AG's result after tax amounted to €496 million in the 2018 fiscal year, mainly due to income from investments in affiliated companies totaling €745 million. Income from investments in affiliated companies is solely attributable to income from the control and profit and loss transfer agreement with Covestro Deutschland AG.

General administration expenses totaling €79 million mainly consisted of personnel expenses for the employees of the holding company and members of the Board of Management. The year-on-year increase of €15 million is mainly attributable to higher expenses for strategic projects. Other operating income includes primarily income under the existing Contribution, Indemnification and Post-Formation Agreement and income from the reversal of provisions for obligations under this agreement. The interest result includes interest expense of €14 million for the bonds issued. Other income and expense items had no notable effect on earnings. The result of operations was €667 million and led to income taxes of €171 million. Taking into account the profit brought forward from the previous year and an allocation of €60 million to other retained earnings, there was a distributable profit of €439 million.

Our goal for the financial year 2018 is to generate net income that will again enable our stockholders to adequately participate in the Covestro Group's earnings. The Board of Management and the Supervisory Board are proposing a dividend of € 2.40 per share carrying dividend rights for the 2018 fiscal year to the Annual General Meeting. That would amount to a year-on-year increase of € 0.20.

18.2 Net Assets and Financial Position

Covestro AG Statements of Financial Position according to the German Commercial Code

	Dec. 31,2017	Dec. 31,2018
	€ million	€ million
ASSETS		
Noncurrent assets	1,767	1,767
Intangible assets, property, plant and equipment	1	1
Financial assets	1,766	1,766
Current assets	5,581	3,839
Trade accounts receivables	19	25
Receivables from affiliated companies	5,505	3,762
Other assets	57	52
Deferred charges	9	7
Excess of plan assets over pension liability	13	7
Total assets	7,370	5,620
EQUITY AND LIABILITIES		
Equity	5,686	4,444
Capital stock	203	183
Treasury shares	(2)	–
Issued capital	201	183
Capital reserves	4,777	3,493
Other retained earnings	269	329
Distributable profit	439	439
Provisions	140	160
Provisions for pensions	2	3
Provisions for taxes	79	108
Other provisions	59	49
Liabilities	1,544	1,016
Bonds	1,500	1,000
Trade accounts payables	7	10
Payables to affiliated companies	31	1
Other liabilities	6	5
Total equity and liabilities	7,370	5,620

Covestro AG had total assets of €5,620 million as of December 31, 2018. The net assets and financial position of Covestro AG are dominated by its role as a holding company in managing subsidiaries and financing corporate activities. This is primarily reflected in the levels of financial assets (31.4% of total assets) and receivables from (66.9% of total assets), and payables to, Group companies.

Receivables from affiliated companies declined by €1,743 million, mainly due to a corresponding decrease in an intercompany loan to Covestro Deutschland AG.

All receivables and other assets had maturities of less than one year.

Property, plant, equipment and intangible assets were of secondary importance. At €28 million, current other receivables, including deferred income, were also immaterial in relation to total assets. Other assets of €52 million mainly included income tax and VAT receivables.

Covestro AG's equity amounted to €4,444 million (previous year: €5,686 million). This corresponds to an equity ratio of 79.1% (previous year: 77.2%). Changes in equity in fiscal year 2018 chiefly related to share buy-backs and the retirement of 19,500,000 no-par-value shares. In the 2018, Covestro AG acquired 18,260,077 treasury shares at a total cost of €1,310 million (excluding transaction costs). Covestro AG's capital reserves decreased accordingly. On December 3, 2018, the Board of Management had resolved to retire 19,500,000 shares. The Company's Articles of Incorporation were amended accordingly on December 7, 2018. This was set against an allocation of €60 million to retained earnings.

Moreover, the payment of dividends for fiscal 2017 in the amount of €436 million reduced equity.

Equity is set against provisions amounting to €160 million and other liabilities of €1,016 million. The 2016–2018 bond of €500 million was repaid by the due date in March 2018.

Provisions were made up of provisions for pensions and other post-employment benefits (€3 million), tax provisions (€108 million), and other provisions (€49 million). The bonds have the following maturities: €500 million is due for repayment within one to five years and €500 million is due in 2024. All other liabilities are due within one year.

Report on Future Perspectives and on Opportunities and Risks

19. Economic Outlook

Global economy

In 2019, a year marked by uncertainty, the global economy is projected to grow at a slightly slower rate than in the previous year. The key reasons for this development include increasing protectionism causing adverse effects on global supply chains, the slowdown in China's growth, geopolitical risks in the Middle East and political uncertainties in the eurozone.

In the European Union (EU), growth is anticipated to drop to approximately 1.3%. Despite domestic demand remaining solid thanks to further declines in unemployment figures and nonrestrictive fiscal policy, foreign economic factors such as a continued trade conflict with the United States and the ongoing negotiations on the United Kingdom's exit from the EU will have a dampening effect. These factors have an impact on export-oriented business in Germany, in particular; weaker growth of around 1.0% is therefore expected.

The U.S. economy's generally positive performance is expected to continue in 2019, driven by factors including a reduction in corporate/income taxes. However, further wage increases and stepped up import restrictions carry the risk of higher inflation rates in the medium term and the start of an economic downturn.

China's economy should continue to grow relatively robustly in 2019 – although at a somewhat slower pace than in 2018. There is also the increasing emergence of the conflicting goals of reducing macroeconomic imbalances and attempting to mitigate the negative effects of the economic dispute with the United States.

Economic Outlook

	Growth ¹ 2018	Growth ¹ forecast 2019
	%	%
World	+3.1	+2.8
European Union	+1.9	+1.3
of which Germany	+1.5	+1.0
NAFTA	+2.7	+2.4
of which United States	+2.9	+2.5
Asia-Pacific	+4.9	+4.7
of which China	+6.6	+6.3

¹ Real growth of gross domestic product, source: IHS (Global Insight), as of February 2019

Main customer industries⁷

In 2019, we anticipate the global automotive industry to grow somewhat, driven by a recovery in Asia. Our global growth forecast for this year is 1%.

For 2019, we anticipate that the global construction industry will see stable growth of slightly over 2% compared with the previous year. A continued recovery in Eastern Europe and Latin America, a stable investment climate in North America and the ongoing positive performance in Asia will contribute to this development despite significant weakening in Western Europe.

Growth in the global electrical, electronics and household appliances industry is predicted to weaken considerably in 2019 and to come in at only slightly above 2%. Equal growth is forecast for the industrialized and emerging economies.

We expect the global furniture industry to expand at around 3% in 2019. The main driver here continues to be the Asia-Pacific region with growth of approximately 4%. For Europe and Latin America, we also project a positive trend at the previous year's level. Following stagnation with zero growth in 2018, we anticipate that North America will once again see a positive growth rate of approximately 1%.

⁷ Covestro's estimate, based on the following sources: LMC Automotive Limited, B+L, CSIL (Centre for Industrial Studies), Oxford Economics

20. Forecast for Key Data

Forecast

	2018	Forecast 2019
Core volume growth	+1.6%	Low-to-mid-single-digit percentage increase
Free operating cash flow	€1,669 million	Between €300 million and €700 million
ROCE	+29.5%	Between 8% and 13%

Covestro Group

The following forecast for the 2019 fiscal year is based on the business development described in this Annual Report and takes into account the following potential risks and opportunities:

The Board of Management of Covestro AG presumes that despite an increasingly challenging market environment, Covestro will maintain its profitable growth course in 2019 and achieve a premium above the costs of capital.

We expect core volume growth in the low-to-mid-single-digit-percentage range. This trend is projected for both the Covestro Group and for the Polyurethanes, Polycarbonates and Coatings, Adhesives, Specialties segments.

We expect free operating cash flow (FOCF) to be between €300 million and €700 million in fiscal year 2019. For the Polyurethanes segment, we anticipate an increase in cash outflows for additions to property, plant, equipment and intangible assets which the expected operating cash flow will be insufficient to offset. We also expect FOCF to decline in the Polycarbonates segment, although the trend here is likely to be much more positive than for the Group overall. For the Coatings, Adhesives, Specialties segment, we expect FOCF around the prior-year level.

In 2019, we expect ROCE between 8% and 13%.

Covestro AG

The earnings of Covestro AG, as the parent company of the Covestro Group, largely comprise the earnings of that company's subsidiaries. The earnings of the subsidiaries in Germany, especially Covestro Deutschland AG, are transferred to Covestro AG under profit and loss transfer agreements. The earnings of Covestro AG are therefore expected to reflect the business development anticipated in the Covestro Group. We want our stockholders to adequately participate in the Covestro Group's earnings for fiscal 2019. We aim to increase the dividend annually, or at least to keep it at the previous year's level. For 2019, we expect a net income of Covestro AG that will enable us to pay a corresponding dividend. The Board of Management and the Supervisory Board are proposing a dividend of €2.40 per share carrying dividend rights for the 2018 fiscal year to the Annual General Meeting.

21. Opportunities and Risks Report

As a company with global operations, Covestro is exposed to opportunities and risks on a daily basis. Addressing these opportunities and risks therefore represents an integral part of our business operations. We regard a risk as a development or event in or outside the company that could lead to a negative deviation from forecasts or the Group's targets. Conversely, an internal or external development or event that could cause a positive change in forecasts or targets is considered an opportunity.

No risks that could endanger the Covestro Group's continued existence are currently identifiable.

Group-wide opportunities and risk management system

Conscientious management of risks and opportunities is part of responsible corporate governance and forms the basis for sustainable growth and financial success. This includes the ability to systematically identify and take advantage of opportunities while avoiding risks to the company's success. The entrepreneurial decisions we make daily in the course of business processes are based on balancing opportunities and risks. We therefore regard the management of our opportunities and risks as an integral part of our business management system rather than as the task of a specific organizational unit.

Opportunities and risk management system



Our opportunity and risk management begins with strategy and planning processes, from which relevant external and internal opportunities and risks of an economic, ecological or social nature are derived. Opportunities and risks are identified by observing and analyzing trends along with macroeconomic, industry-specific, regional and local developments. The identified opportunities and risks are subsequently evaluated and incorporated into our strategic and operational processes. We attempt to avoid or mitigate risks by taking appropriate countermeasures, or to transfer them to third parties (such as insurers) to the extent possible and economically acceptable. At the same time, we strive to take maximum advantage of opportunities by incorporating them into our entrepreneurial decisions as appropriate. We consciously accept and bear manageable and controllable risks that are in reasonable proportion to the anticipated opportunities. We regard them as the general risks of doing business. Opportunities and risks are continuously monitored using indicators so that, for example, changes in the economic or legal environment can be identified at an early stage and suitable countermeasures can be initiated, if necessary.

To enable the Board of Management and the Supervisory Board to monitor material business risks as legally required, the following systems are in place: an internal control system ensuring proper and effective financial reporting pursuant to Section 289, Paragraph 4 and Section 315, Paragraph 4 of the German Commercial Code (HGB); a compliance management system; and a risk early warning system pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act (AktG).

The various management systems are based on different risk types, risk levels and timelines. Different processes, methods and IT systems are therefore applied to identify, evaluate, manage and monitor risks. The principles underlying the various systems are documented in Group policies that are integrated into our central document control processes and are accessible to all employees via the Covestro intranet. The overall responsibility for the effectiveness and appropriateness of the system as a whole lies with the Chief Financial Officer.

The various systems are described below.

Internal control system for (Group) accounting and financial reporting (Report pursuant to Section 289, Paragraph 4 and Section 315, Paragraph 4 of the German Commercial Code)

The purpose of our internal control system (ICS) is to ensure proper and effective accounting and financial reporting in accordance with Section 289, Paragraph 4 and Section 315, Paragraph 4 of the German Commercial Code.

The ICS is designed to guarantee timely, uniform and accurate accounting for all business processes and transactions based on applicable statutory regulations, accounting and financial reporting standards, and the internal Group regulations that are binding on all consolidated companies.

The ICS concept is based on the Committee of the Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework (2013) and the Control Objectives for Information and Related Technology (COBIT) framework and addresses the risk of misreporting of the consolidated financial statements. Risks are identified and evaluated, and steps are taken to counter them. Mandatory ICS standards such as system-based and manual reconciliation processes and functional separation have been derived from these frameworks and promulgated throughout the Covestro Group by Group Accounting.

The management of each Covestro Group company holds responsibility for implementing the ICS standards at the local level. Bayer Shared Service Centers continued to handle certain activities in the first half of 2018 on account of several fixed-term transitional agreements in the scope of the carve-out. These services are no longer used, however, and all accounting activities have been handled in-house since May 2018.

The effectiveness of the ICS processes for accounting and financial reporting is evaluated on the basis of a cascaded self-assessment system that starts with the persons directly involved in the processes, then involves the principal responsible managers and ends with the Board of Management. In addition, an external audit is performed to ensure and attest to its proper functioning. An IT system in use throughout the Covestro Group ensures the uniform and audit-proof documentation and transparent presentation of the risks, controls, and effectiveness evaluations associated with all ICS-relevant business processes. It should generally be noted that, however carefully designed, an internal control system cannot provide absolute assurance that material misstatements in the accounting will be avoided or identified in a timely manner.

The Chief Financial Officer of Covestro AG has confirmed the criteria and the effective functioning of the internal control system for accounting and financial reporting for fiscal 2018.

Internal control system to ensure compliance

Compliance risks are systematically identified and assessed as part of Covestro's Group-wide risk management. Risk owners assess the compliance risks that have been identified. A risk matrix is used to define focal points of compliance tasks at Covestro. The findings of a risk-based analysis enabled Covestro to identify three key topics: antitrust law, corruption, and foreign trade law. The General Counsel /Chief Compliance Officer is the risk owner responsible for the risks of "breaches of antitrust law" and "corruption"; the Export Control Officer is the risk owner of "breaches of foreign trade law." With respect to corruption, areas including gifts/invitations, contributions/sponsoring and working relationships with certain business partners such as customs officials/sales agents were identified as being especially risk-relevant.

Many controls have been implemented at both the Group-wide and local levels to reduce the number of compliance risks. To the extent possible, we integrate the compliance controls into our internal control system. In the reporting period, the controls aimed at preventing corruption were globally standardized and, where necessary, additional controls were integrated into business processes.

The effectiveness of the compliance controls is evaluated – as are the ICS processes for accounting and financial reporting – on the basis of a cascaded self-assessment system. The results of the effectiveness evaluations are documented in the global system for the ICS processes. In addition, Corporate Audit carries out dedicated compliance checks

Risk early warning system

(Report pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act)

Covestro implemented a structured process for the early identification of any potentially disadvantageous developments that could have a material impact on the company or endanger its continued existence. This process satisfies the legal requirements regarding an early warning system for risks pursuant to Section 91, Paragraph 2 of the German Stock Corporation Act. Covestro's risk management process is based on the international risk management standard COSO II Enterprise Risk Management – Integrated Framework (2004). A central unit defines, coordinates, and monitors the framework and standards for this risk early warning system.

Throughout the year, various global subcommittees provide new and updated information about identified risks. The Covestro Corporate Risk Committee meets four times a year to review the risk landscape as well as the various risk management and monitoring mechanisms that are in place, and to take any necessary measures.

Risks are evaluated using estimates of the potential impact, the likelihood of their occurrence and their relevance for our external stakeholders. All material risks and the respective countermeasures are documented in a company-wide database. The risk early warning system is reviewed regularly over the course of the year. Significant changes must be promptly entered in the database and reported to the Board of Management. In addition, a report on the risk portfolio is submitted to the Audit Committee several times a year and to the Supervisory Board at least once a year. The following matrix illustrates the financial and indirect financial criteria for rating a risk as high, medium or low.

Rating Matrix

Indirect financial impact ¹	and/or	Accumulated impact ¹ (€ million)	Likelihood of occurrence within 1 year				
			Very low	Low	Medium	High	Very high
Critical		> 1,100					
Significant		> 285 – 1,100					
High		> 115 – 285					
Moderate		≥ 60 – 115					

Weighted risk occurrence ■ Low ■ Medium ■ High

¹ An individual risk that could have both a financial and indirect financial impact of different severities and is always classified based on the higher level of risk.

Criteria of the Classification of Indirect Financial Impact

Indirect financial impact			
Moderate	High	Significant	Critical
Moderate effect on achieving outcome objectives/national reporting	High effect on achieving outcome objectives/national reporting	Significant effect on achieving outcome objectives/major outlets reporting internationally	Critical effect on achieving outcome objectives/major outlets constantly reporting internationally

Process-independent monitoring

The effectiveness of our management systems is audited and evaluated at regular intervals by the Corporate Audit unit, which performs an independent and objective audit function focused on verifying compliance with laws and policies. Corporate Audit also supports the company in achieving its goals by systematically evaluating the efficiency and effectiveness of governance, risk management and control processes, and helping to improve them. The selection of audit targets follows a risk-based approach. Corporate Audit performs its tasks according to internationally recognized standards and delivers reliable audit services. This was confirmed in an external audit conducted in accordance with Auditing Standard 983 of the Institute of Public Auditors in Germany (IDW) in fiscal 2017. A report on the internal control system and its effectiveness is presented annually to the Audit Committee of the Supervisory Board.

Risks in the areas of occupational health and safety, plant safety, environmental protection and product quality are assessed through specific HSEQ (health, safety, environment and quality) audits.

In addition, the external auditor, as part of its audit of the annual financial statements, assesses the basic suitability of the early warning system for identifying at an early stage any risks that could endanger the company's continued existence so that suitable countermeasures can be taken. The auditor also reports at regular intervals to the Board of Management and the Supervisory Board on the results of the audit and any weaknesses identified in the internal control system. Audit outcomes are also taken into account in the continuous improvement of our management processes.

Opportunities and risks

Overall assessment of opportunities and risks

The overall opportunity position and overall risk position facing the Group have not changed as against the previous year. The risks reported in the following do not endanger the company's continued existence, nor could we identify any risk interdependencies that could combine to endanger the company's continued existence.

Based on our product portfolio, our know-how and our innovation capability, we are confident that we can use the opportunities resulting from our entrepreneurial activity and successfully master the challenges resulting from the risks stated below.

Opportunities and risks in general and in the company's business environment

Risks are outlined below that have material effects on the business situation, net assets, financial position, and results of operations of our Group. In this context, risks are deemed material if the potential loss to Covestro is estimated at €60 million or more, or – regardless of their likelihood of occurrence – they have at least a moderate potential indirect financial impact. The likelihood of occurrence of the risks is used in internal control to define focus areas for the Corporate Risk Committee. The risks are more highly aggregated in this report than in our internal documentation. The following chart shows the levels of risk allocated to the individual risks within each category. The order in which the risks are listed does not imply any order of significance.

Risk Categories

	Weighted risk occurrence		
	Low	Medium	High
Business environment			
Competition	●	●	
Cooperations/acquisitions	●		
Market growth	●	●	
Regulations/policies	●	●	
Company-specific environment			
Product stewardship	●	●	
Procurement	●	●	
Production and supply chain	●	●	
Employees	●	●	
Information technology	●	●	
Law and compliance	●	●	

Business environment

General economic conditions worldwide and, in particular, in the geographic regions in which Covestro operates are a key factor affecting the company's earnings given that their effect on the industries in which Covestro's direct and indirect customers operate impacts demand for our company's products.

Negative economic developments typically have a negative impact on the sales markets for our products, which usually results in decreases in sales volumes and adversely impacts earnings. However, the extent of the impact of economic developments on sales volumes and earnings also depends on capacity utilization rates in the industry, which in turn, depend on the balance between supply and demand for the industry's products. Decreases in demand lead to lower sales volumes and, ultimately, to reduced capacity utilization, which negatively impacts margins. Conversely, a positive economic environment characterized by growth and upward trends usually leads to improved business success.

Historically, the markets for most of our products have experienced periods of tight supply, causing prices and profit margins to increase. Periods of significant capacity additions, however, resulted in oversupply and declining prices and profit margins. The cycles in demand are often caused by capacity additions of new world-scale production facilities or the expansion of existing production facilities, which are necessary to create or sustain economies of scale in the industry segments, and the decline of industry-wide utilization rates that often follows capacity additions.

An economic downturn, changes in competitors' behavior or the emergence of new competitors can lead to greater competition and, as a result, overcapacities in the market or increased pressure on prices.

The international nature of Covestro's business exposes it to substantial changes in economic, political and social conditions, and the resulting statutory requirements of the countries in which Covestro operates. The associated opportunities and risks can have both a positive and negative effect on the company's business and significantly influence its prospects.

Where it appears strategically advantageous, we supplement our organic growth by acquiring companies or parts of companies. Exploiting potential synergies or economies of scale can positively impact the company's success. However, failure to successfully integrate a newly acquired business or unexpectedly high integration costs could jeopardize the achievement of qualitative or quantitative targets and adversely impact earnings. To avoid this, both the due diligence and integration processes are supported by teams of experts. Due diligence also includes, for example, reviewing risk-relevant factors such as compliance with applicable environmental regulations and occupational health and safety standards at production sites.

The main conditions for economic success in developing countries are political stability, prosperity and a secure income. Based on the improved economic fundamentals in developing countries, we expect that the rising standard of living will lead to higher sales figures and better business prospects for our products in the medium to long term.

Further opportunities and risks may also arise if actual market developments vary from those we predict in section 19 "Economic Outlook." Where macroeconomic developments deviate from forecasts, this may either positively or negatively impact our sales and earnings expectations. Continuous analysis of the economic environment and of economic forecasts enables us to utilize the identified opportunities and to mitigate risks by adjusting our business strategy.

Innovation

We continually analyze global trends and develop innovative solutions to address them, thereby mastering the challenges and taking advantage of the opportunities that these trends provide.

One example of the opportunities created by innovation is additive manufacturing, also known as 3D printing. This is a new market with considerable growth potential for our products. Covestro is an established player in the polymer industry segment and has in-depth technological expertise in this area. This makes us well positioned to generate added value for our company through advances in additive manufacturing.

Customers are increasingly choosing sustainable products as a result of a growing environmental awareness and interest in environmental protection. A key focus of Covestro's strategy is sustainability and efficient production. Our product portfolio offers sustainable solutions for different areas of everyday life. We therefore see an opportunity here to expand our relevant market shares and to grow in this segment.

The finite nature of natural resources and efforts to protect the climate are boosting the demand for innovative products and technologies that reduce resource consumption and lead to lower emissions. This trend is being reinforced by increasingly stringent regulatory requirements and growing consumer awareness for the need to use resources sustainably. Covestro is therefore developing new materials that help to raise energy efficiency and

reduce emissions. For example, the polyurethane manufactured by the company is used in the construction industry for thermal insulation, thus improving the positive energy balance, while its polycarbonate is used in the automotive industry to reduce vehicle weight and thus fuel consumption.

Ongoing technological advancements are changing the world we live in and the way we do business. By utilizing cutting-edge digital technologies, we expect to holistically add value across the value chain by optimizing supply chain, leveraging growth, and developing new business models.

Product stewardship

The Covestro Group is exposed to the risk of negative publicity, press speculation, and potential or actual legal proceedings concerning its business, which may harm its reputation. The development of a negative social perception of the chemical industry in general or Covestro's processes, products or external communications in particular could also have a negative impact on the company. The incorrect use and handling of our products by third parties can also harm the company's reputation.

In addition, concerns about product safety and environmental protection could influence public perceptions regarding Covestro's products and operations, the viability of certain products, its reputation, and the ability to attract and retain employees. Due to the technical expertise required to fully understand the possible impacts of the chemical constituents of our products, the company's reputation may suffer due to claims that such compounds are of a harmful nature, even if these claims can be disproved by experts. Such statements may lead to changes in consumer preferences or additional government regulations even before any harm is scientifically substantiated and possibly despite scientific evidence to the contrary.

Procurement

Our Supplier Code of Conduct sets forth our sustainability principles and explains what we expect from our partners along the value chain. The Code requires that our suppliers observe environmental regulations as well as occupational health and safety rules, respect human rights and therefore, for example, not employ child labor in any form. Violations of the Code may harm our company's reputation. Through supplier assessments and audits, we verify whether our partners along the supply chain actually implement and adhere to our Code of Conduct. Covestro's Supplier Code of Conduct is based on the principles of the United Nations Global Compact and our human rights position.

Covestro requires significant quantities of energy and petrochemical feedstocks for production processes. Procurement prices for energy and raw materials may fluctuate significantly due to market conditions or legislation. Experience from the past has shown that higher production costs cannot always be passed on to our customers through price adjustments. Conversely, lower raw materials prices that do not directly reduce the selling price by the full amount can lead to improved margins.

Important raw materials purchased based on long-term supply agreements and an active supplier management to minimize procurement-related risks such as supply shortages or substantial price fluctuations. In steam and electricity generation, we aim for market-based price indexing, a diversification of fuels and a mix of external procurement and captive production to minimize the risk of fluctuating energy prices.

Production and supply chain

We place great importance not only on product safety but also on protecting our employees and the environment. Risks associated with the production, filling, storage or shipping of products are mitigated through integrated quality, health, environmental protection and safety management. The materialization of such risks may result in personal injury, property and environmental damage, loss of production, business interruptions as well as liability for compensation payments.

Covestro uses large quantities of hazardous substances, generates hazardous wastes and emits wastewater and air pollutants in its production operations. Consequently, its operations are subject to extensive environmental, health and safety (EHS) laws, regulations, rules and ordinances at the international, national and local levels in multiple jurisdictions. The company must dedicate substantial resources to complying with these EHS regulations and the additional voluntary commitments. Costs relating to the implementation of and compliance with EHS requirements are part of Covestro's operating costs and must therefore be covered by the prices at which the company is able to sell its products. Competitors of Covestro that are not affected by equally strict EHS requirements to the same extent may have lower operating costs and, as a consequence, their products may be priced lower than those of Covestro.

Operations at our sites may be disrupted by natural disasters, fires/explosions, sabotage, or supply shortages for our principal raw materials or intermediates. To the extent possible and economically feasible, we mitigate these risks by distributing production for certain products among multiple sites and by building up safety stocks. Furthermore, an emergency response system has been implemented for all our production sites as a mandatory component of our HSEQ management. It is aimed at protecting employees, neighbors, the environment and production facilities from the risks described. The Group Regulation "Security and Crisis Management" forms the basis for this.

Covestro operates in markets with a relatively balanced supply and demand situation. However, in the event of planned or unplanned closures, interruptions or even the elimination of one of our competitors, Covestro may have the opportunity to take over customers and cover their demand.

Increased ecological awareness creates opportunities for Covestro in two ways. On the one hand, the development of innovative materials for our customers opens up market potential. On the other hand, if we succeed in increasing the energy efficiency of our own production processes, we can mitigate environmental impacts and achieve cost savings at the same time. By developing new production technologies and applying internationally recognized energy management systems, we aim to help meet increasing environmental requirements, further reduce emissions and waste, and increase energy efficiency. In this way, we not only contribute to sustainable climate protection and the conservation of natural resources, but also achieve cost and competitive advantages.

Organic growth through investment may involve risks as it relates to the overall project scope, location, and timing. These risks are addressed through established processes that involve a variety of internal and external stakeholders. A specific risk is posed by the transfer of services formerly provided by Bayer companies to other external partners in order to plan, construct and coordinate capital investment projects. This risk is being addressed through a targeted project focusing on this shift. A robust investment assessment process helps to ensure that we are capitalizing on organic growth opportunities at the right time. These projects are reviewed throughout the project timeline so that any potential changes in the market situation are considered, enabling us to react in a timely manner, if necessary.

Employees

Skilled and dedicated employees are essential for the company's success. There is keen competition among companies for highly qualified personnel and employees in key positions in particular, especially in countries with full employment. If we are unable to recruit a sufficient number of employees in these countries and retain them within Covestro, this could have significant adverse consequences for the company's future development.

We are planning appropriate employee recruitment and development measures based on the analysis of future requirements. We aim to convince our target groups of the advantages of working for Covestro through comprehensive human resources marketing, including an employer branding campaign. Our human resources policies are based on the principles enshrined in our human rights position, the Corporate Compliance Policy and our corporate values. Essential elements include competitive compensation containing performance-related components as well as an extensive range of training and development opportunities. In addition, our focus on diversity enables us to tap the full potential of the employment market.

Covestro depends on good relations with its employees, unions and employee representatives to avoid industrial action, implement restructurings and amend existing collective agreements, and to negotiate reasonable and fair wages as well as other key working conditions.

Information technology

Business and production processes as well as the internal and external communications of the Covestro Group are increasingly dependent on global IT systems. A significant technical disruption or failure of IT systems could severely impair our business and production processes. Technical precautions such as data recovery and continuity plans are defined and continuously updated in close cooperation with our internal IT organization.

The confidentiality of internal and external data is of fundamental importance for Covestro. A loss of data confidentiality, integrity or authenticity could lead to manipulation and/or the uncontrolled outflow of data and expertise. We have measures in place to counter these risks, including a sophisticated authorization system.

Furthermore, a Group-wide committee was established to determine the fundamental strategy, architecture and IT safety measures for the Covestro Group. These measures are designed to guarantee optimum protection based on state-of-the-art technology.

Law and compliance

Ethical conduct is a matter of essential importance for society. Many stakeholders evaluate companies according to whether they conduct themselves not just "legally" but also "legitimately." The Covestro Group is committed to sustainable development in all areas of its commercial activity. Any violations of this voluntary commitment can result in adverse media reporting and thus lead to a negative public perception of the Covestro Group. We counter this risk through responsible corporate management that is geared toward generating not only economic but also ecological and societal benefit.

The Covestro Group is exposed to numerous risks from legal disputes or proceedings to which we are currently a party or that could arise in the future, particularly in the areas of product liability, competition and antitrust law, patent law, tax law and environmental protection.

Investigations of possible legal or regulatory violations, such as potential infringements of antitrust law or the use of certain marketing and/or distribution methods, may result in the imposition of civil or criminal penalties – including substantial monetary fines – and/or other adverse financial consequences, harm Covestro's reputation and ultimately hamper our commercial success.

Legal proceedings currently considered to involve material risks are described in note 26 under "Legal Risks" in the Notes to the Consolidated Financial Statements.

Financial opportunities and risks

The Covestro Group is exposed to liquidity risks, foreign currency and interest-rate opportunities and risks, credit risks and risks resulting from obligations for pensions and other post-employment benefits. Appropriate processes to manage financial opportunities and risks have been established and documented. One component of this is financial planning, which serves as the basis for establishing liquidity needs and foreign currency risk. Financial planning comprises a planning horizon of 12 months and is regularly updated.

The section below presents the financial risks material to the Covestro Group – independent of their likelihood of occurrence.

Liquidity risk

Liquidity risk is the risk of not being able to meet existing or future payment obligations. The liquidity status of all material Group companies is continuously planned and monitored. Liquidity is secured by cash pooling agreements as well as internal and external financing. A syndicated revolving credit facility offers additional financial flexibility.

Foreign currency opportunities and risks

For the Covestro Group, foreign currency opportunities and risks result from changes in exchange rates and the related changes in value.

Material receivables and payables in liquid currencies from operating and financial activities are fully hedged through forward exchange contracts.

Anticipated foreign currency exposures were not hedged in the reporting year since they did not exceed the limit defined for the Group. These exposures are also hedged using forward exchange contracts if the foreign currency risk increases significantly.

Interest rate opportunities and risks

Interest rate opportunities and risks for the Covestro Group result from changes in capital market interest rates, which could lead to changes in the fair value of fixed-rate financial instruments and in interest payments in the case of floating-rate instruments. To minimize adverse effects, interest rate risk is managed centrally based on an optimized debt maturity structure.

Credit risks

Credit risks arise from the possibility that the value of receivables or other financial assets of the Covestro Group may be impaired because counterparties cannot meet their payment or other performance obligations.

To manage credit risks from receivables, credit managers are appointed who regularly analyze customers' creditworthiness and set credit limits. The Covestro Group does not conclude master netting agreements with its customers for nonderivative financial instruments. Here, the total value of the financial assets represents the maximum credit risk exposure. In the case of derivatives, positive and negative market values may be netted under certain conditions.

[Risk to pension obligations from capital market developments](#)

The Covestro Group has obligations to current and former employees related to pensions and other post-employment benefits. Changes in relevant measurement parameters such as interest rates, mortality rates and salary increase rates may raise the present value of these obligations, resulting in increased costs for pension plans. A proportion of the Covestro Group's pension obligations is covered by plan assets. Declining or even negative returns on the investment of the plan assets may adversely affect their future fair value. Both these effects may negatively impact the company's earnings and may necessitate additional payments by the company.

We address the risk of market-related fluctuations in the value of plan assets through balanced strategic investments and by constantly monitoring investment risks with regard to obligations.

Corporate Governance Report

Covestro places great importance on responsible corporate governance. This promise to stockholders, business partners and employees is based on our commitment to the German Corporate Governance Code (GCGC) and Articles of Incorporation that reflect these standards.

The Board of Management and Supervisory Board provide information pertaining to corporate governance in this Report pursuant to Section 3.10 of the GCGC, including a Declaration on Corporate Governance for Covestro AG pursuant to Section 289f and for the Covestro Group pursuant to Section 315d of the German Commercial Code (HGB). The contents of the Corporate Governance Report also comprise part of the Group Management Report. Pursuant to Section 317 (2), Sentences 4 and 5 of the German Commercial Code, the disclosures in the Declaration on Corporate Governance are not included in the audit. In addition, the Compensation Report is part of the Corporate Governance Report.

22. Declaration on Corporate Governance

In the reporting year, the Board of Management and Supervisory Board again addressed the matter of complying with the German Corporate Governance Code and the resulting Declaration of Conformity was issued in December 2018 and posted on Covestro's website.

In the year under review, Covestro AG was in compliance with all recommendations of the "Government Commission on the German Corporate Governance Code" as published by the Federal Ministry of Justice and Consumer Protection in the official section of the Federal Gazette (Bundesanzeiger), and will remain so in the future.

Declaration of Conformity (in accordance with the German Corporate Governance Code)

Declaration by the Board of Management and Supervisory Board concerning the German Corporate Governance Code (February 7, 2017 version) pursuant to Section 161 of the German Stock Corporation Act (AktG)

Since the last Declaration of Conformity as of December 2017, Covestro AG has complied with all recommendations of the German Corporate Governance Code in the version of February 7, 2017, and will comply with them in the future.

Leverkusen, December 2018

For the Board of Management

Dr. Markus Steilemann

For the Supervisory Board

Dr. Richard Pott

Composition, duties and activities of the Board of Management and Supervisory Board

Board of Management

Duties and activities of the Board of Management

The Board of Management runs the company on its own responsibility with the goal of sustainably increasing the company's enterprise value and achieving defined corporate objectives. In doing so, it takes into account the interests of stockholders, employees and other stakeholders. The Board of Management performs its tasks according to the law, the Articles of Incorporation and the Board of Management's rules of procedure, and the recommendations of the German Corporate Governance Code as stated in the Declaration of Conformity. It ensures compliance with the law and internal company policies, and works with the company's other governance bodies in a spirit of trust.

The Board of Management defines the long-term goals and strategies for the company and sets forth the principles and policies for the resulting corporate policies. It coordinates and monitors the most important activities, defines the company's portfolio, develops and deploys managerial staff, allocates resources and decides on the financial steering and reporting of the Covestro Group.

The members of the Board of Management bear joint responsibility for running the business as a whole. However, the individual members manage the areas assigned to them on their own responsibility within the framework of the decisions made by the full Board. The allocation of duties among the members of the Board of Management is defined in a written schedule appended to its rules of procedure.

The full Board of Management makes decisions on all matters of fundamental importance and in cases where a decision of the full Board is prescribed by law or otherwise mandatory. The rules of procedure of the Board of Management contain a list of topics that must be dealt with and resolved by the full Board.

Board of Management meetings are held regularly and are convened by the Chair of the Board of Management. Any member of the Board of Management may also demand that a meeting be convened, notifying the other members of the matter for discussion. The Board of Management makes decisions by a simple majority of the votes cast, except where unanimity is required by law. In the event of a tie, the Chair has the casting vote.

According to the Board of Management's rules of procedure and schedule of duties, the Chair bears particular responsibility for coordinating all Board of Management areas. The Chair represents the Board of Management and Covestro AG and the Group in dealings with the public and other third parties.

Composition of the Board of Management

Under the schedule of duties, each Board member is assigned responsibility for particular duties and areas. The Board of Management members manage the areas assigned to them on their own responsibility within the framework of the decisions made by the full Board. The Chair of the Board of Management is appointed by the Supervisory Board.

Objectives and concept for the composition of the Board of Management

Assisted by the Human Resources Committee and the Board of Management, the Supervisory Board arranges long-term succession planning for individual Board of Management members. The Supervisory Board conducts a systematic process for selecting candidates for the Board of Management, while following the recommendations of the German Corporate Governance Code. In accordance with Covestro's corporate values, it also observes the diversity principle, i.e. balancing the Board's composition in terms of age, educational and professional background as well as a balanced ratio of male and female members. The Board of Management as a whole should represent a variety of backgrounds and possess extensive experience in corporate strategy, innovation, production and technology, marketing and sales, finance, leadership and sustainability management.

When filling specific Board of Management positions, the Supervisory Board also develops a skills profile that is based on the diversity criteria and used to evaluate candidates from within and outside the company. Decisions are made in the company's interest and taking into account all of the circumstances of each individual case.

Implementation status of the objectives

Covestro's Board of Management currently has three members. The goals regarding age structure and function-specific expertise were generally met in fiscal year 2018. In filling the position of CFO, the Board of Management met the education and professional background requirements. The Board of Management's members ranged in age from 46 to 56 in fiscal year 2018. As a whole, the Board of Management features members with a range of different educational backgrounds. In particular, they possess many years of experience in the following areas: engineering, physics and chemistry, business administration and finance. The members of the Board of Management have extensive professional experience in Germany and abroad as well as in the petroleum and chemical

industries. In the course of their careers, they have held leadership positions in marketing and sales, corporate strategy, production and technology, and finance, among others, and possess extensive experience in human resources and project management.

Promotion of equal participation of women and men in leadership positions

The German Law on equal participation of women and men in leadership positions in the private and public sectors of May 24, 2015, requires certain companies in Germany to define target quotas for appointing women to their Supervisory Boards, and Boards of Management and the two management levels below, and to establish dates by which this quota is to be achieved in each case.

In accordance with Section 96 Paragraph 2 of the Stock Corporation Act, the Supervisory Board of a company which is both listed and codetermined should be composed of at least 30% women and at least 30% men. As of December 31, 2018, the Supervisory Board of Covestro AG comprises four women and eight men. The minimum legal requirement has thus been met.

At the end of the first target attainment period on June 30, 2017, the Supervisory Board decided on a target quota of at least 40% for women on the Board of Management of Covestro AG and an implementation period through June 30, 2022.

In addition, in the past year the Board of Management set new targets for the first two management levels below the Board of Management. For the new period until June 30, 2022, the goal of Covestro AG and the Covestro Group is to achieve a minimum of 30% women at both levels.

Targets for Covestro AG and the Covestro Group

	Covestro AG		Covestro-Konzern	
	Status quo (December 31, 2018)	Target (by June 30, 2022)	Status quo (December 31, 2018)	Target (by June 30, 2022)
Management level ¹	0%	30%	7%	30%
Management level ²	27%	30%	20%	30%

¹ Direct reports to the Board of Management with management responsibilities

² Direct reports to management level 1 with management responsibilities

Supervisory Board

Duties and activities of the Supervisory Board

The Supervisory Board advises and oversees the Board of Management. The Supervisory Board is directly involved in decisions on matters of fundamental importance to the company, regularly conferring with the Board of Management on the strategic alignment of Covestro AG and the Covestro Group, and on the implementation status of the business strategy. The Supervisory Board Chair coordinates its work and presides over the meetings.

Through regular and open discussions with the Board of Management, the Supervisory Board is kept informed of business policy, corporate planning and strategy. The Supervisory Board approves the annual budget and financing framework. It also approves the financial statements of Covestro AG and the consolidated financial statements of the Covestro Group, along with the combined management report, taking into account the auditor's reports.

Composition of the Supervisory Board

The Supervisory Board has 12 members, half of whom are stockholder representatives and half employee representatives pursuant to the German Codetermination Act. The six members representing employees comprise four Covestro employees and two union representatives. The stockholder representatives are elected by the Annual General Meeting.

The Supervisory Board discussed the requirements stipulated by Section 100, Paragraph 5 of the German Stock Corporation Act. Based on its composition, the Supervisory Board as a whole has in-depth industry expertise in the chemical and polymer sector in which Covestro operates. This industry knowledge was acquired by the members either through their jobs or the requisite continuing education.

Committees of the Supervisory Board

The Supervisory Board currently has the following committees:

Presidial Committee: This comprises the Supervisory Board Chair and Vice Chair along with a further stockholder representative and a further employee representative. The Executive Committee serves primarily as the mediation committee pursuant to the German Codetermination Act. It has the task of submitting proposals to the Supervisory Board on the appointment of members of the Board of Management if the necessary two-thirds

majority is not achieved in the first vote at a plenary meeting. Certain decision-making powers in connection with capital measures, including the power to amend the Articles of Incorporation, have also been delegated to this committee.

Members: Dr. Richard Pott (Chair), Peter Hausmann, Petra Kronen and Regine Stachelhaus

Audit Committee: The Audit Committee comprises three stockholder representatives and three employee representatives. The Chair of the Audit Committee in the reporting year, Prof. Dr. Rolf Nonnenmacher, satisfies the statutory requirements concerning expertise in the field of accounting or auditing that at least one member of the Supervisory Board and the Audit Committee is required to possess and is independent pursuant to Section 5.4.2 of the German Corporate Governance Code. The Audit Committee meets four times a year. It monitors the accounting and financial reporting process and is responsible for examining the financial statements, consolidated financial statements and management reports, and for discussing the quarterly and half-yearly reporting with the Board of Management. On the basis of the auditor's report, the Audit Committee develops proposals for resolutions by the Supervisory Board relating to the confirmation of the financial statements, the approval of the consolidated financial statements and the use of the distributable profit.

The Audit Committee is also responsible for the company's relationship with the external auditor. It submits a proposal to the full Supervisory Board concerning the auditor's appointment and may award the audit contract to the audit firm appointed on behalf of the Supervisory Board and agree the auditor's remuneration. It also suggests areas of focus for the audit and monitors the quality of the audit as well as the independence and qualifications of the auditor.

In addition, the Audit Committee monitors the effectiveness of the internal control system, the risk management system, the internal audit system and the compliance function.

Members: Prof. Dr. Rolf Nonnenmacher (Chair), Johannes Dietsch, Peter Hausmann, Petra Kronen, Irena Küstner and Dr. Richard Pott

Human Resources Committee: On this committee, too, there is parity of representation between stockholders and employees. It consists of the Supervisory Board Chair and three other members. The Human Resources Committee prepares the personnel decisions of the full Supervisory Board, which resolves on appointments or dismissals of members of the Board of Management. The Human Resources Committee resolves on behalf of the Supervisory Board on the service contracts of the members of the Board of Management. However, it is the task of the full Supervisory Board, based on the recommendations submitted by the Human Resources Committee, to resolve on the total compensation of the individual members of the Board of Management and the respective compensation components, as well as to regularly review the compensation system. The Human Resources Committee also discusses the long-term succession planning for the Board of Management.

Members: Dr. Richard Pott (Chair), Johannes Dietsch, Dr. Ulrich Liman and Petra Kronen

Nominations Committee: This committee carries out preparatory work when an election of stockholder representatives to the Supervisory Board is to be held. It suggests suitable candidates for the Supervisory Board to propose to the Annual General Meeting for election. The Nominations Committee comprises the Supervisory Board Chair, another stockholder representative on the Executive Committee and an elected stockholder representative.

Members: Dr. Richard Pott (Chair), Regine Stachelhaus and Ferdinando Falco Beccalli

In its report, the Supervisory Board provides detailed information about the work of the Supervisory Board and its committees.

Objectives for the composition of the Supervisory Board and diversity concept

The Supervisory Board should be composed in such a way that its members jointly possess the necessary expertise, skills and professional experience to properly perform their duties, and are sufficiently independent. The Supervisory Board assesses the independence of its members according to the recommendation contained in Section 5.4.2 of the German Corporate Governance Code.

Existing objectives for the composition

Covestro AG's Supervisory Board has agreed the following specific goals for its composition that align with the recommendations of the German Corporate Governance Code and at the same time provide for diversity in terms of age, independence and professional experience:

- The Supervisory Board has resolved that 75% of its members and more than half of the stockholder representatives on the Supervisory Board are to be independent.

- Absent special circumstances, a Supervisory Board member shall not serve more than three full terms of office and shall not hold office beyond the end of the next Annual General Meeting following his or her 72nd birthday.
- The Supervisory Board shall not include more than two former members of the company's Board of Management. Supervisory Board members may not perform executive functions or consulting activities for major competitors of the company or any Group company, and they must not be exposed to other significant conflicts of interest.
- At least two Supervisory Board members must have function-specific knowledge in each of the following areas:
 - Accounting and/or auditing
 - Strategy, mergers and acquisitions, capital markets
 - Marketing, distribution, supply chain
 - Research and development, innovation
 - Technology, digitalization
 - Human resources, change management
 - Corporate governance, compliance
- The Supervisory Board must have at least two members with experience in industries, sales markets and/or divisions of importance to Covestro, e.g. (polymer) chemistry, production and technology.
- Taking into account the specific situation and international operations of Covestro and its affiliated companies, the Supervisory Board shall strive to ensure sufficient diversity among its members. Moreover, at least three members should have managerial experience in an international enterprise and/or experience serving on other supervisory boards or supervisory bodies.

The objectives described refer to the Supervisory Board as a whole unless resolved otherwise. However, since the Supervisory Board can only nominate candidates for election as stockholder representatives, it can only consider the objectives in making these nominations.

Implementation status of the objectives

The Supervisory Board has several members with international business experience and an international background. The objectives pertaining to age limits, length of service and independence are being met. In the opinion of the Supervisory Board, the stockholder representatives Dr. Richard Pott, Ferdinando Falco Beccalli, Dr. Christine Bortenlänger, Johannes Dietsch, Prof. Dr. Rolf Nonnenmacher and Regine Stachelhaus are independent pursuant to Section 5.4.2 of the German Corporate Governance Code. The requirements for function-specific knowledge are generally being met, but the specific goal of having at least two stockholders per field of expertise is not fulfilled in all areas.

Information about Covestro AG's current Supervisory Board members is available on our website at: www.covestro.com/en/company/management/supervisory-board

Stockholdings and reportable securities transactions by members of the Board of Management or Supervisory Board

Members of the Board of Management and Supervisory Board and their close relatives are legally required to disclose all transactions involving the purchase or sale of Covestro AG securities where such transactions total €5,000 or more in a calendar year. Covestro publishes details of such transactions immediately on its website and also notifies the German Federal Financial Supervisory Authority accordingly. This information is provided to the company register for archiving. Information on securities transactions by members of the Board of Management or Supervisory Board can be found at: investor.covestro.com/en/stock/shareholder-structure/disclosure-of-securities-transactions/

Common values and leadership principles

Covestro is guided by three corporate values that reflect the way people at the company think and act: curious, courageous and colorful.

Systematic risk management

Our enterprise risk management system ensures early identification of any financial or nonfinancial risks. We attempt to avoid or mitigate identified risks, or to transfer them to third parties (such as insurers) to the extent possible and economically acceptable.

The internal control system for accounting and financial reporting enables the timely monitoring of risks to prevent or correct potential errors in accounting for business transactions. It thus ensures the availability of reliable data on the company's financial situation.

However, the control and risk management system cannot provide absolute protection against losses arising from business risks or fraudulent actions.

Detailed reporting

To maximize transparency, we provide regular and timely information on the Covestro Group's position and significant changes in business activities to stockholders, financial analysts, stockholders' associations, the media and the general public. Four times a year we report to our stockholders about the company's business performance, its net assets, financial position, and results of operations, and the risks it faces. Our company's reporting thus complies with the provisions of the German Corporate Governance Code.

In line with statutory requirements, the members of the company's Board of Management provide an assurance that, to the best of their knowledge, the financial statements of Covestro AG, the consolidated financial statements of the Covestro Group, and the combined management report provide a true and fair view.

The financial statements of Covestro AG, the consolidated financial statements of the Covestro Group and the combined management report are published within 90 days following the end of each fiscal year. During the fiscal year, Covestro informs stockholders and other interested parties about developments by means of the half-year financial report and additional interim reports for the first and third quarters. The half-year financial report is voluntarily subjected to a review by the auditor appointed by the Annual General Meeting.

Covestro additionally provides information about the current corporate strategy, important growth areas, the financial position and results of operations, and financial targets at regular news conferences and analysts' meetings. The company uses the internet as a platform for the timely disclosure of information, with the dates of major publications and events, such as the annual report, interim financial reports and the Annual General Meeting posted on the Group's website.

In line with the principle of fair disclosure, all stockholders and other main target groups are treated equally as regards the communication of valuation-relevant information. All significant new facts are disclosed immediately to the general public. In addition to our regular reporting, we issue ad-hoc statements on developments that otherwise might not become publicly known but have the potential to materially affect the price of Covestro stock.

23. Takeover-relevant Information

Description pursuant to Section 289a, Paragraph 1 and Section 315a, Paragraph 1 of the German Commercial Code (HGB)

Investments in capital interest held, exceeding 10% of total voting rights

We have received no notification nor are we otherwise aware of direct or indirect investments in capital interest held, equal to or exceeding 10% of the voting rights.

For information on Covestro's ownership structure, see: investor.covestro.com/en/stock/shareholder-structure

Board of Management

Appointment and dismissal of members of the Board of Management, changes to the Articles of Incorporation

The appointment and dismissal of members of the Board of Management are subject to the provisions of Sections 84 and 85 of the German Stock Corporation Act, Section 31 of the German Codetermination Act and Section 6 of the company's Articles of Incorporation. Pursuant to Section 84, Paragraph 1 of the German Stock Corporation Act, the members of the Board of Management are appointed and dismissed by the Supervisory Board. Since Covestro AG falls within the scope of the German Codetermination Act, the appointment or dismissal of members of the Board of Management requires a majority of two-thirds of the votes of the members of the Supervisory Board on the first ballot pursuant to Section 31, Paragraph 2 of that act. If no such majority is achieved, the appointment is resolved pursuant to Section 31, Paragraph 3 of the Codetermination Act on a second ballot by a simple majority of the votes of the members of the Supervisory Board. If the required majority still is not achieved, a third ballot is held. Here again, a simple majority of the votes of the members suffices, but in this ballot the Supervisory Board Chair has two votes pursuant to Section 31, Paragraph 4 of the Codetermination Act. Under Section 6, Paragraph 1 of the Articles of Incorporation of Covestro AG, the number of members of the Board of Management is determined by the Supervisory Board but must be at least two. The Supervisory Board may appoint one member of the Board of Management to be its Chair and one member to be the Vice Chair pursuant to Section 84, Paragraph 2 of the German Stock Corporation Act and Section 6, Paragraph 1 of the Articles of Incorporation.

Any amendments to the Articles of Incorporation are made pursuant to Section 179 of the German Stock Corporation Act and Sections 10 and 17 of the Articles of Incorporation. Under Section 179, Paragraph 1 of the German Stock Corporation Act, amendments to the Articles of Incorporation require a resolution of the Stockholders' Meeting. Pursuant to Section 179, Paragraph 2 of the German Stock Corporation Act, this resolution must be passed by a majority of three-quarters of the voting capital represented at the meeting, unless the Articles of Incorporation provide for a different majority. However, where an amendment relates to a change in the object of the company, the Articles of Incorporation may only specify a larger majority. Section 17, Paragraph 2 of the Articles of Incorporation of Covestro AG utilizes the scope for deviation pursuant to Section 179, Paragraph 2 of the German Stock Corporation Act and provides that resolutions may be passed by a simple majority of the votes cast or, where a capital majority is required, by a simple majority of the capital represented. Pursuant to Section 10, Paragraph 9 of the Articles of Incorporation, the Supervisory Board may resolve on amendments to the Articles of Incorporation that relate solely to their wording.

Capital

Composition of the capital stock

The capital stock of Covestro AG amounted to € 183,000,000 as of December 31, 2018, and is composed of 183,000,000 no-par value bearer shares. Each share confers equal rights and one vote at the Stockholders' Meeting. On December 3, 2018, the Covestro AG Board of Management resolved to buy back 19,500,000 own shares against a reduction in the Company's capital stock of €19,500,000. The Company's Articles of Incorporation were changed accordingly by resolution of the Supervisory Board on December 7, 2018.

Authorized capital

Provisions of the Articles of Incorporation concerning authorized capital are entered in the commercial register of Covestro AG. With the approval of the Supervisory Board and until October 2, 2020, the Board of Management may use the authorized capital to increase the capital stock by up to a total of €101,250,000. New no-par value bearer shares may be issued against cash contributions and/or contributions in kind. If the authorized capital is used to issue shares in return for cash contributions, stockholders must normally be granted subscription rights. However, the Board of Management is authorized – with the consent of the Supervisory Board – to exclude subscription rights for stockholders:

- (a) Where the subscription ratio gives rise to fractional amounts.
- (b) To the extent necessary to grant holders or creditors of bonds (including jouissance rights) with warrants or conversion rights or obligations issued by the company or its Group companies the right to subscribe to

new shares to the extent to which they would be entitled after exercise of their warrants or conversion rights, or performance of their exercise or conversion obligations.

- (c) If the capital is increased by granting shares against contributions in kind.
- (d) If the new shares are issued at a price that is not significantly below the stock market price and the total interest in the capital stock attributable to the new shares for which subscription rights are excluded pursuant to Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act does not exceed 10% of the existing capital stock either on the date this authorization takes effect or the date it is utilized. The sale of treasury shares shall count toward this limit if they are sold during the term of this authorization and subscription rights are disapplied pursuant to Section 71, Paragraph 1, No. 8, Sentence 5 in conjunction with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act. Further, shares issued or to be issued to service bonds (including *jouissance* rights) with warrants or conversion rights or obligations shall also count toward this limit where such bonds or *jouissance* rights were issued during the term of this authorization and stockholders' subscription rights were excluded in analogous application of Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act.
- (e) To issue a scrip dividend in which stockholders are given the option of contributing their dividend entitlements to the company (either in full or in part) as a noncash contribution in return for the granting of new shares in the company out of the authorized capital.

Conditional capital

The company's capital stock shall be conditionally increased by up to €70,000,000, divided into up to 70,000,000 no-par value bearer shares (conditional capital). The conditional capital increase shall only be implemented to the extent that the holders of warrants or conversion rights attached to bonds (including *jouissance* rights) issued or guaranteed by the company or its Group companies up to August 31, 2020, on the basis of the authorization of the Stockholders' Meeting of September 1, 2015, exercise their warrant or conversion rights or perform their warrant or conversion obligations, and to the extent that such warrants or conversion rights or obligations cannot be serviced by treasury shares, shares issued out of the authorized capital, or other forms of settlement.

The new shares shall be issued at the warrant or conversion price to be determined in accordance with the authorizing resolution referred to above. The new shares shall participate in the profit from the beginning of the fiscal year in which they come into existence; however, the Board of Management, with the consent of the Supervisory Board, may decide that the new shares shall participate in the profit from the beginning of the fiscal year for which, at the time when the warrants or conversion rights are exercised or the exercise or conversion obligations are performed, the Stockholders' Meeting has not yet adopted a resolution on the use of the distributable profit. The Board of Management is authorized, with the consent of the Supervisory Board, to set further details of the terms of the conditional capital increase. In the event of a capital increase, the company may regulate dividend entitlement of the new shares differently from what is specified in Section 60 of the German Stock Corporation Act.

Acquisition and use of treasury shares

By a resolution adopted by the Stockholders' Meeting on September 1, 2015, the Board of Management is authorized to acquire and use treasury shares, also using derivatives. The individual details of the resolution are as follows:

1. Authorization granted to the Board of Management to acquire and use treasury shares

- 1.1 The Board of Management is authorized until August 31, 2020, to acquire treasury shares with a proportionate interest in the capital stock totaling up to 10% of the company's capital stock existing at the date of the resolution, subject to the proviso that the shares acquired as a result of this authorization, together with other shares of the company that the company has already acquired and still holds, or which are attributable to it under Sections 71d and 71e of the German Stock Corporation Act, at no time exceed 10% of the capital stock of the company. The provisions in Section 71, Paragraph 2, Sentences 2 and 3 of the German Stock Corporation Act must be complied with.

Making use of the authorization to acquire treasury shares, Covestro AG's Board of Management resolved on October 24, 2017, to buy back treasury shares totaling up to €1.5 billion (excluding transaction costs), or up to 10% of the company's capital stock, whichever comes first.

The acquisition may only take place via the stock exchange or by means of a public purchase offer and must satisfy the principle of equal treatment of stockholders (Section 53a of the German Stock Corporation Act). If the acquisition takes place via the stock exchange, the purchase price paid by the company (excluding transaction costs) may neither exceed, nor be lower than, the company's share price, as determined by the opening auction in XETRA® trading (or a comparable successor system) on the Frankfurt Stock Exchange

on the trading day, by more than 10%. If the acquisition takes place by means of a public purchase offer, the offer price paid by the company (excluding transaction costs) may neither exceed, nor be lower than, the company's share price, as determined by the closing auction in XETRA® trading (or a comparable successor system) on the Frankfurt Stock Exchange on the last trading day before the publication of the purchase offer, by more than 10%. If the total number of the shares tendered in response to a public purchase offer exceeds the offer volume, purchases may be made in proportion to the number of shares tendered (tender ratios); in addition, preferential acceptance of small numbers of shares (up to 50 shares per stockholder), as well as rounding in accordance with commercial principles to avoid notional share fractions, may be provided for. Any further stockholder tender rights are disapplied to this extent.

- 1.2 The authorization may be exercised in full, or in a number of partial amounts split across several acquisition dates, until the maximum purchase volume has been reached. The acquisition may also be carried out by Group companies that are dependent on the company within the meaning of Section 17 of the German Stock Corporation Act, or by third parties on behalf of the company or such Group companies. The authorization may, subject to compliance with the statutory requirements, be exercised for any purpose permissible in law, especially in pursuit of one or more of the purposes listed in 1.3, 1.4, 1.5 and 1.6. Trading in treasury shares is not permitted.

If the treasury shares acquired are used for one or more of the purposes described under 1.3 or 1.4, the stockholders' subscription rights are disapplied. The Board of Management is authorized to disapply subscription rights if the treasury shares acquired are used for the purpose specified in 1.6. Stockholders also do not have any subscription rights if the treasury shares acquired are sold via the stock exchange. In the event that the treasury shares acquired are sold by means of a public offer to stockholders and this public offer complies with the principle of equal treatment, the Board of Management is authorized to disapply the stockholders' subscription rights for fractions.

- 1.3 The Board of Management is authorized to also sell the treasury shares acquired under the above authorization in a manner other than via the stock exchange or via an offer to all stockholders, provided that the sale takes place against cash consideration and at a price which, at the date of sale, is not significantly lower than the market price for the same class of shares in the company. This authorization concerning the use of shares is restricted to shares whose proportionate interest in the capital stock may not in total exceed 10% of the capital stock either at the date when this authorization becomes effective or, if this amount is lower, at the date when the present authorization is exercised. The upper limit of 10% of the capital stock is reduced by the proportionate interest in the capital stock which is attributable to those shares which are issued or sold while disapplying subscription rights under or in accordance with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act on or after September 1, 2015. The upper limit of 10% of the capital stock is further reduced by the proportionate interest in the capital stock which is attributable to those shares which are to be issued to service bonds with warrants or conversion rights or obligations, provided that these bonds are issued while disapplying subscription rights in application of Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act, with the necessary modifications, on or after September 1, 2015.
- 1.4 The Board of Management is authorized to transfer the treasury shares acquired under the above authorization to third parties, provided this is done for the purpose of acquiring companies, parts of companies, equity interests in companies, or other assets, or to effect business combinations.
- 1.5 The Board of Management is authorized to retire the treasury shares acquired under the above authorization without a further resolution by the Stockholders' Meeting. The shares may also be retired without reducing the capital by adjusting the proportionate interest of the remaining no-par value shares in the capital stock of the company. In this case, the Board of Management is authorized to amend the number of no-par value shares in the Articles of Incorporation.
- 1.6 The Board of Management is authorized to use the treasury shares acquired as a result of the above-mentioned authorization to pay a scrip dividend.
- 1.7 The Board of Management may only use the authorizations in 1.3, 1.4 and 1.6 with the consent of the Supervisory Board. Moreover, the Supervisory Board can determine that the measures taken by the Board of Management on the basis of this Stockholders' Meeting resolution may only be implemented with its consent.
- 1.8 Overall, the above authorizations concerning the use of shares may be utilized on one or several occasions, individually or together, in relation to partial volumes of the treasury shares or all treasury shares held in total.

Under the share buy-back program, the company acquired treasury shares at a total price of approximately €1.5 billion (excluding transaction costs) in three tranches during the period from November 21, 2017, up to and including December 4, 2018, corresponding to a proportional share of 9.84% of the capital stock of the company registered to that date that amounted to €202,500,000. From January 1 through December 4, 2018, a total of 18,260,077 treasury shares were acquired at a total price of some €1.3 billion. This corresponds to 9.02% of the capital stock of the Company of €202,500,000 registered to that date.

2. Authorization for acquisition using derivatives

2.1 Treasury shares being acquired as part of the authorization under 1.1 may also be acquired using put or call options. In this case, the option transactions must be entered into with a credit institution, or a company which operates in accordance with Section 53, Paragraph 1, Sentence 1 or Section 53b, Paragraph 1, Sentence 1 or Paragraph 7 of the German Banking Act, that is independent of the company (financial institution), provided that this financial institution, when the option is exercised, only delivers shares which were previously acquired via the stock exchange at a market-driven price in compliance with the principle of equal treatment.

2.2 The acquisition of shares using put or call options is limited to a maximum of 5% of the capital stock in existence as of the date of the resolution by the Stockholders' Meeting or, if this value is lower, – as of the date when the authorization is exercised.

2.3 The option premium paid by the company in the case of call options may not be materially higher and the option premium received in the case of put options may not be materially lower than the theoretical fair value of the options concerned calculated using accepted valuation techniques. The exercise price agreed in the option transaction (in each case not including transaction costs, but taking into account the option premium received or paid) may not be more than 10% higher or lower than the price of the company's shares as determined by the opening auction in XETRA® trading (or a comparable successor system) on the Frankfurt Stock Exchange on the trading day on which the option transaction was entered into.

2.4 The term of the individual derivatives may not, in each case, exceed 18 months; it must end at the latest on August 31, 2020, and must be selected so that the shares are not acquired using derivatives after August 31, 2020.

2.5 The provisions under 1.1 also apply to the use of company shares that have been acquired on the basis of this authorization.

3. Authorization to issue convertible bonds, warrant bonds and/or jouissance rights and to disapply subscription rights to these convertible bonds, warrant bonds and/or jouissance rights

3.1 Authorization period, object, nominal value, term, number of shares

The Board of Management is authorized, with the approval of the Supervisory Board, to issue by August 31, 2020 – in one or more installments – convertible bonds, warrant bonds and/or jouissance rights (collectively referred to as "bonds") – as either registered or bearer bonds – with a total nominal value of up to €1,500,000,000, with or without limited maturity, and to grant to the creditors of these bonds warrants or conversion rights in respect of up to 70,000,000 no-par value bearer shares of the company representing a total pro-rated increase of up to €70,000,000 in the company's capital stock (hereinafter referred to as "shares of the company") on the terms to be defined for these bonds (hereinafter referred to as the "terms of the bond"). The Board of Management can use the authorization in one or more installments. Bonds may also be issued against consideration in kind.

3.2 Currency, issue by Group companies

The bonds may be issued in euros or in the legal currency of any OECD country up to the equivalent value in euros. If bonds are issued in a currency other than the euro, the value shall be calculated using the European Central Bank's reference price for that currency on the date the resolution concerning the bond issue was taken. The bonds may also be issued by a Group company within the meaning of Section 8 of the German Stock Corporation Act. In such case, the Board of Management is authorized, with the approval of the Supervisory Board, to assume the guarantee for redemption of the bonds and to grant to the creditors of these bonds warrants or conversion rights to shares of the company.

3.3 Conversion rights/obligations, conversion ratio

In the case of bonds with conversion rights, creditors may exchange their bonds for shares of the company in accordance with the terms of the bond. The proportionate interest in the capital stock upon conversion into shares may not exceed the nominal value or a lower issue price for the bond with conversion rights. The conversion ratio is the nominal value of a bond with conversion rights divided by the conversion price for a share in the company. This applies analogously if the price of the bond with conversion rights is lower than the nominal value. The conversion ratio may be rounded up or down to the nearest whole number.

Moreover, an additional cash payment may be determined. It may also be determined that fractions are aggregated and/or paid out in cash. The terms of the bond may provide for a fixed or variable conversion ratio. The terms of the bond may also specify a conversion obligation. Moreover, they may entitle the company to grant the creditors of bonds with conversion rights upon or before maturity shares in the company in full or partial place of the cash amount due (company's substitution right). The terms of the bond may also authorize the company to compensate by cash in full or in part any difference between the nominal value of the bond with conversion rights and the product of the conversion ratio and a price for the share at the time of conversion that is to be specified in the terms of the bond. The share price used in the calculation in accordance with the preceding sentence must be at least 80% of the share price relevant for the lower limit of the conversion price in accordance with the following No. 3.6.

3.4 Warrants/exercise obligations

In the case of bonds with warrants or exercise obligations, one or several warrants are attached to each bond entitling the creditors to subscribe to shares in the company in accordance with the terms of the bond that are to be defined by the Board of Management. The subscription ratio is the nominal value of a bond with warrants divided by the subscription price for a share in the company. The proportionate interest in the capital stock represented by the shares of the company to be issued on exercise of the options may not exceed the nominal value of the bonds. The terms of the bond may also provide for subscription to a variable number of shares on exercise of the warrants. They may also permit settlement of the subscription price by way of a transfer of bonds and, if necessary, an additional cash payment.

3.5 Granting of new or existing shares, cash payment

When exercising warrants or conversion rights or when meeting exercise or conversion obligations, the company may choose to either grant new shares issued from conditional capital or existing shares in the company or shares in another listed corporation. The terms of the bond may entitle the company to pay the cash value instead of granting shares when exercising warrants or conversion rights or when meeting exercise or conversion obligations.

3.6 Conversion/exercise price

The conversion/exercise price must be at least 80% of the volume-weighted average closing price for the company's shares in XETRA® trading (or a comparable successor system) on the Frankfurt Stock Exchange on the last ten trading days before the day on which the Board of Management passes the resolution concerning the bond issue or at least 80% of the average closing price for the company's shares in XETRA® trading (or a comparable successor system) during the days on which the subscription rights are traded on the Frankfurt Stock Exchange, with the exception of the last two trading days of subscription rights trading. In the case of bonds that are subject to mandatory conversion or if the company exercises its substitution right, the conversion price for one share must be either the aforementioned minimum price or at least the average closing price for the company's shares in XETRA® trading (or a comparable successor system) on the ten trading days before the day on which the conversion takes effect. The terms of the bond may provide for changes to the conversion or exercise price over the course of its term, taking account of the minimum prices as described above within a range specified by the Board of Management depending on the development of the share price. The terms of the bond may include dilution clauses for the case that, during the conversion or exercise period, the company increases the capital stock with subscription rights for its stockholders or issues further convertible bonds, warrant bonds, or profit jouissance rights or grants or guarantees other option rights and disapplies the subscription rights to which the holders of warrants or conversion rights would be entitled on exercise of their warrants or conversion rights or on performance of their conversion obligations. The terms of the bond may also allow a value-preserving adjustment of the conversion or exercise price or of the option ratio or payment of a cash component in the event of other measures taken by the company or events which entail an economic dilution of the value of the warrants or conversion rights (e.g. dividends). Under no circumstances may the proportionate interest in the capital stock per share attached to a bond exceed the nominal value of the bond itself.

This shall not affect Section 9, Paragraph 1 or Section 199 of the German Stock Corporation Act.

3.7 Other terms of the bond

The Board of Management is authorized, with the consent of the Supervisory Board, to set further details for the issue and class of the bonds.

3.8 Subscription rights, disapplying subscription rights

When bonds are issued, stockholders must be granted subscription rights as a matter of principle. The bonds may be taken up by one or more banks with the obligation to offer them for subscription to stockholders. However, when issuing bonds, the Board of Management is authorized – with the consent of the Supervisory Board – to disapply stockholders' subscription rights:

3.8.1 For fractions.

3.8.2 Insofar as it is necessary to grant the holders of warrants or conversion rights to shares in the company or the creditors of bonds with conversion obligations attached a subscription right to the extent to which they would be entitled if they were to exercise their rights or perform the conversion obligation.

3.8.3 Insofar as the bonds are issued against cash and the issue price does not substantially fall below the theoretical market value of the bonds as determined in accordance with recognized financial principles. However, this authorization to disapply subscription rights relates only to bonds with rights to shares with a total proportionate interest in the capital stock of no more than 10%, and neither at the time when this authorization becomes effective nor at the time it is exercised. The sale of treasury shares shall count toward this limit if they are sold during the term of this authorization and subscription rights are disappplied pursuant to Section 71, Paragraph 1, No. 8, Sentence 5 in conjunction with Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act. Those shares issued during the term of this authorization from authorized capital and on which subscription rights are disappplied pursuant to Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act shall also count toward this limit.

3.8.4 Insofar as they are issued against considerations in kind and the value of these considerations in kind is in reasonable proportion to the market value of the bonds determined according to the preceding No. 3.8.3.

Material conditional agreements

Some debt financing instruments contain clauses that refer to cases of change of control. Such clauses grant the respective investor additional rights of termination, which will possibly be restricted by additional conditions – such as a rating being downgraded. Our syndicated credit line and our bonds, for example, are governed by change-of-control agreements.

Agreements exist for the members of the Board of Management in compliance with Section 4.2.3 of the German Corporate Governance Code to cover the eventuality of a takeover offer being made for Covestro AG. Under these agreements, payments promised in the event of early termination of the service contract of a Board of Management member due to a change of control are limited to the value of three years' compensation and may not compensate more than the remaining term of the contract.

24. Compliance

Our corporate conduct is characterized by a sense of responsibility as well as ethical principles. Compliance with legal and regulatory requirements is integral to our operations. It is only in this manner that we can sustainably increase the company's enterprise value and safeguard our reputation.

Compliance culture and targets

In our Corporate Compliance Policy, Covestro has specified a Group-wide code of conduct that mandates fundamental principles and rules for all employees. This code of conduct details our commitment to fair competition, integrity in business dealings, the principles of sustainability and product stewardship, data protection, upholding of foreign trade and insider dealing laws, the separation of business and private interests, proper record-keeping and transparent financial reporting, as well as to providing fair, respectful and nondiscriminatory working conditions. The requirements of our Corporate Compliance Policy apply within the company as well as to all interactions with external partners and the general public. Our code of conduct furthermore provides a decision-making framework for our company and our employees. Our Corporate Compliance Policy is available online and on our intranet. New employees receive a comprehensive set of information documents, including our Corporate Compliance Policy.

Covestro is aware that employees will likely embrace and exhibit integrity if managers are excellent role models. As the Board of Management of Covestro states very clearly in its Corporate Compliance Policy for all staff, Covestro does not conduct any business activities that would be legal yet violate our rules. In addition, supervisors are prohibited from instructing employees to violate any Covestro rule. In this way, management continuously fosters our compliance culture by, for example, regularly drawing employees' attention to compliance topics and their significance to the company. At Covestro town hall meetings, for example, Board of Management members present recent compliance cases to employees as well as underscore the importance of complying with statutory requirements and in-house regulations.

We want to utilize our compliance management system in order to:

- Foster and reinforce conduct per compliance requirements;
- Minimize or even eliminate compliance violations;
- Identify risks for potential violations;
- Implement preventive measures;
- Uncover, remedy and proactively eliminate a repeat occurrence of any compliance violations committed by individuals acting without authorization and in breach of clear rules; and
- Achieve continuous improvement of our compliance management system.

Compliance organization

At Covestro, the Chief Compliance Officer oversees compliance activities and reports in this capacity directly to the Board of Management. A central Compliance department coordinates compliance activities throughout the Covestro Group. The Compliance Committee, chaired by the CFO of Covestro, is the Group's top-level decision-making body on compliance issues. In addition, the Compliance Committee is in charge of the following: exercising a Group-wide compliance governance function, initiating and approving compliance-related regulations and approving the annual training plan. In the reporting period, the Compliance Committee met a total of four times.

A local Compliance Officer has also been appointed for each country in which Covestro has employees. This person serves as a local point of contact for employees on all questions regarding legally and ethically correct conduct in business situations. The country organizations also have local compliance committees.

Communication

Covestro systematically conducts training courses on compliance. Once areas of emphasis have been specified, specialists define target groups for each category of course content and determine which employees require which type of training.

Covestro expressly encourages its employees to openly address any doubts about proper conduct in business situations and to solicit advice. We inform all employees whom they can contact if they have any doubts or questions. Covestro has also set up a whistleblowing portal. Internal and external persons can report potential compliance violations through a hotline accessible worldwide or use an email address that also permits anonymous reports. In

addition, employees can also report any compliance incidents to their supervisors, to the local Compliance Officer of their company, or to the Global Compliance Office.

An internal policy sets out the principles for handling compliance incidents at Covestro. This policy also stipulates that all suspected compliance incidents be recorded in a central database. Confirmed violations are evaluated. Organizational, disciplinary or legal measures are taken if necessary.

Compliance incidents are regularly reported to the Supervisory Board, the Board of Management and the segments' management teams. In addition, a current overview of compliance incidents, along with news and additional information on various aspects and developments related to this topic, is published in a monthly Compliance Telegram on the intranet and therefore can be viewed by all employees.

On a quarterly basis, all Covestro companies document risks arising from pending or current legal proceedings. Relevant cases are reported to the Audit Committee of the Supervisory Board, and the major risks are disclosed in the notes to the consolidated financial statements.

Due diligence on human rights

Covestro is committed to respect for human rights on the basis of the United Nations Guiding Principles on Business and Human Rights. In particular, we are committed to meeting the requirements of various country-specific action plans and laws with respect to due diligence on human rights. We acknowledge that companies are responsible for respecting human rights in their scope of business operations, at subsidiaries and throughout global supply chains and value chains as well as guarding against violations of human rights.



See section 6
"Sustainability in
Supplier Management"

The principles of our due diligence on human rights are delineated in various corporate commitment documents, company policies, and our Supplier Code of Conduct. We revised our Corporate Commitment on Human Rights in 2018 and published it on our website. In this document, we have specified key international conventions and principles as the basis of our conduct. We expect our employees and business partners around the world to conduct themselves in accordance with these principles.

A key component of our due diligence on human rights lies in zero tolerance of child labor, forced labor and human trafficking. We made a public statement on the latter last year in our document "Corporate Commitment against Slavery and Human Trafficking."

25. Compensation Report

The Compensation Report describes the essential features of the compensation system for the members of the Board of Management and the Supervisory Board of Covestro AG and explains the compensation of the individual members. The report conforms to the requirements of the German Commercial Code, including the principles of German Accounting Standard No. 17 (DRS 17) and to the recommendations of the German Corporate Governance Code (GCGC) as amended on February 7, 2017. It also complies with the International Financial Reporting Standards (IFRSs).

Compensation of the Board of Management

Objectives

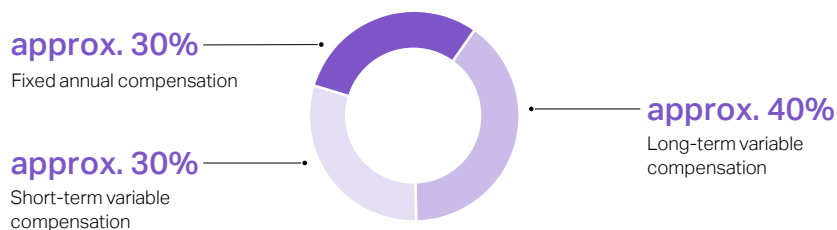
The compensation system for the Board of Management of Covestro AG is designed to facilitate a long-term increase in the company's value and responsible corporate governance. Furthermore, we aim to position Covestro as an attractive employer in the competition for highly qualified executives, and ensure statutory and regulatory compliance. Board of Management compensation is in line with the basic principles of the compensation structure for managerial employees in the Covestro Group.

The appropriateness of the system and the compensation level are regularly reviewed by the Supervisory Board, which then makes any necessary adjustments. To this end, Covestro is compared with DAX and MDAX companies to determine, in particular, whether Covestro's relative position within this group of companies in terms of revenue, employees and market capitalization is in line with the relative positioning of Board of Management compensation.

Compensation structure

The compensation comprises a non-performance-related component, an annual incentive and a long-term stock-based component. The Covestro Group's compensation structure, based on average total annual compensation for a Board of Management member at 100% target attainment, is as follows:

Board of Management Compensation Structure (German Commercial Code)¹



¹ Excluding fringe benefits and pension entitlements

The non-performance-related compensation comprises the fixed annual compensation, which reflects the responsibilities and performance of the Board of Management members, along with fringe benefits. The performance-related compensation comprises a short-term variable component, which depends on the attainment of the corporate performance targets and on the long-term variable compensation, the stock-based compensation program Prisma. This is linked directly to changes in Covestro's share price.

The members of the Board of Management also receive pension entitlements for themselves and their surviving dependents. Furthermore, Covestro AG has purchased insurance for the members of the Board of Management to cover their personal liability arising from their service on the Board of Management. This includes a deductible that is in line with the GCGC recommendation.

Non-performance-related components

Fixed annual compensation

The level of the non-performance-related, fixed annual compensation for members of the Board of Management takes into account the functions and responsibilities assigned to them as well as market conditions. The fixed compensation is regularly reviewed by the Supervisory Board in light of factors such as the consumer price index and adjusted if necessary. It is paid out in 12 monthly installments.

Fringe benefits

Fringe benefits mainly comprise a company car (limited to the term of existing vehicle leases) or a vehicle allowance, use of the company carpool, payments toward the cost of security equipment, and reimbursement of the cost of annual health screening examinations. They are reported at cost or the amount of the pecuniary advantage gained.

Performance-related components

Short-term variable compensation

The target value of the short-term variable compensation is 100% of the fixed annual compensation. This amount is adjusted in line with the company's success.

In fiscal year 2016, the Group-wide Covestro Profit Sharing Plan (Covestro PSP) was introduced, which also applies to the members of the Board of Management. It consists of a short-term variable compensation based solely on the company's success. The system is based on the same performance indicators used to manage the company. The payout is based on performance in the areas of growth (core volume growth), liquidity (free operating cash flow, FOCF,) and profitability (return on capital employed, ROCE), with each counting for one third. In 2015, the Supervisory Board defined the global values for the threshold, 100% achievement and the maximum amount for each performance indicator, which are applied for the last time in fiscal 2018.

Components of the Covestro Profit Sharing Plan 2016–2018

	Growth: Core volume growth	Liquidity: FOCF	Profitability: ROCE
Threshold (0%)	+1.5%	Cash inflow of €250 million	ROCE = WACC
100% target attainment	+3.5%	Cash inflow of €500 million	1% point above WACC
Ceiling (300%)	+6.5%	Cash inflow of €875 million	2.5% points above WACC

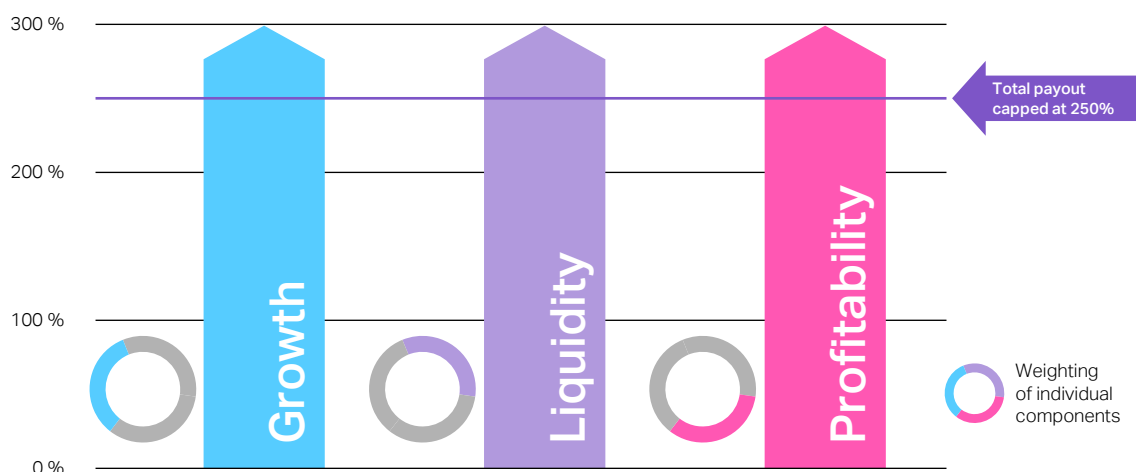
The figures for the upcoming years were adjusted for the Covestro PSP. The values below are applicable to the three-year period from 2019 to 2021.

Components of the Covestro Profit Sharing Plan 2019–2021

	Growth: Core volume growth	Liquidity: FOCF	Profitability: ROCE
Threshold (0%)	+1.5%	Cash inflow of €400 million	ROCE = WACC
100% target attainment	+4.0%	Cash inflow of €800 million	8% points above WACC
Ceiling (300%)	+9.0%	Cash inflow of €1,600 million	24% points above WACC

For each individual KPI, the payout can be between zero (failure to meet minimum requirements) and three times the target value; however, the maximum payout for all three components combined is limited to 250% of the target value. The maximum payout is therefore 2.5 times the fixed annual compensation.

Components of Short-Term Variable Compensation



Long-term compensation

Aspire

The Board of Management members in office since 2015 are still formally participating in the final ongoing performance period (2015–2018 tranche) of the Bayer Group's Aspire long-term stock-based compensation program. The payments made under this program are based on the Aspire Target Opportunity, which is a contractually agreed percentage of fixed annual compensation. Depending on the performance of Bayer stock, both in absolute terms and relative to the EURO STOXX 50® benchmark index, participants are granted an award between 0% and 300% of their individual Aspire Target Opportunity at the end of the respective performance period.

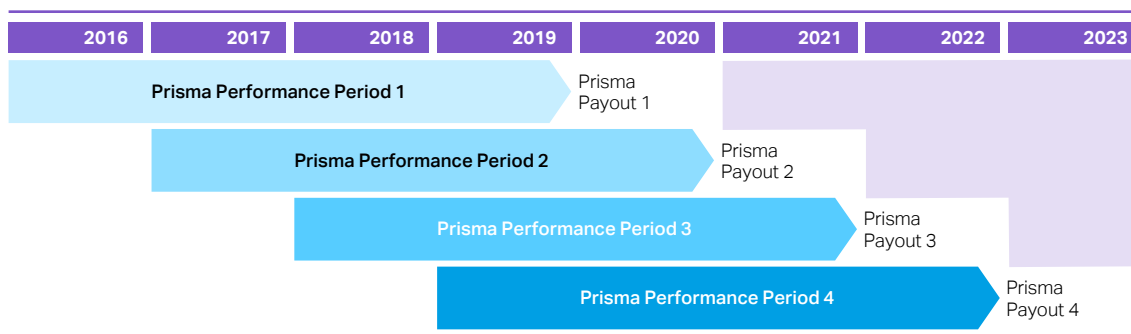
In order to break the link between the payout and the development of Bayer's share price, which can no longer be materially influenced by the members of the Board of Management, the Supervisory Board decided in 2015 that the average price of Bayer stock and the benchmark index calculated from the closing prices for the last 30 trading days of 2015 would be used as the closing price for all current tranches and that the payout amount would be frozen accordingly. As a result, there will be no payout for the 2015–2018 tranche otherwise due in January 2019, because the relevant average price as of year end 2015 remained below the hurdle. The target value for the 2015–2018 tranche was reduced to 8/12 of the full value (pro rata for the period from January to August 2015). This was compensated for by increasing the target value for the first tranche of Covestro's own Prisma long-term compensation program launched in 2016 by 4/12.

Prisma

The members of the Board of Management are eligible to participate in the Prisma compensation program as long as they remain in the service of the Covestro Group and acquire for their own account and hold Covestro shares according to defined policies. This program is based on a target opportunity set at 130% of the fixed annual compensation. When a member of the Board of Management retires, current tranches may be shortened, thus reducing their value.

The payout is determined by calculating two factors: the total shareholder return (TSR) factor is the return generated by a stock expressed as a percentage (total of the final price of the share and all dividends distributed per share during the performance period divided by the initial price). The outperformance factor is based on the performance of Covestro stock during the performance period relative to the performance of the STOXX® Europe 600 Chemicals index. It is determined by expressing the difference between the performance of Covestro stock and that of the index as a percentage. The factor is greater than 100% (less than 100%) if Covestro's stock outperforms (underperforms) the index.

The Prisma target opportunity of each participant is multiplied by the TSR factor and the outperformance factor to arrive at the total distribution figure. The total distribution is limited to no more than 200% of the target opportunity. The maximum payout is therefore 260% of the fixed annual compensation. If Covestro's shares were to significantly underperform the index (e.g. if the price of the stock went down while the index increased in value), the outperformance factor could amount to zero. As a result, there would be no payout.

Prisma Performance Periods**Other stock-based compensation**

In his capacity as subgroup CEO within the Bayer Group, Patrick Thomas received a split payout of the short-term variable compensation (short-term incentive, STI) for the period prior to fiscal unity from October 2013 to December 2014. Part of the STI was paid out in the form of virtual Bayer shares with a three-year lock-up period. The payout of the STI tranche for fiscal 2013 of the entitlements based on virtual Bayer shares took place in 2017. The payout of the STI tranche for fiscal 2014 took place in 2018. The payout amount for both tranches was “frozen” on the basis of the stock price as of December 31, 2015.

Pension entitlements (retirement and surviving dependents' pensions)

The members of the Board of Management are entitled to receive a lifelong company pension after leaving the Covestro Group, though generally not before the age of 62. This pension is paid out in the form of a monthly life annuity.

The arrangements for surviving dependents basically provide for a widow's pension amounting to 60% of the member's pension entitlement, and an orphan's pension amounting to 12% of the member's pension entitlement for each child.

The annual pension entitlement is based on contributions. From September 1, 2015, onward, Covestro has provided a hypothetical contribution amounting to as much as 33% of the respective fixed compensation each year. This percentage comprises a 6% basic contribution and a matching contribution of up to 27% – three times the member's maximum personal contribution of 9%. The total annual contribution is converted into a pension module according to the annuity table for the applicable tariff of the Rheinische Pensionskasse VVaG pension fund. The annual pension entitlement upon retirement is the total amount of the accumulated pension modules including an investment bonus, which is determined annually by the representatives' meeting of the Rheinische Pensionskasse VVaG and approved by the German Financial Supervisory Authority.

In the case of fixed compensation up to the annual income threshold, the Board of Management members, like all entitled employees, remain subject to the rules governing the basic company pension and are regular participants in the relevant pension plan.

Dr. Klaus Schäfer has been granted, in addition, a vested entitlement to a fixed annual pension of €126,750.

The actual pension entitlement cannot be precisely determined in advance. It depends on the development of the member's compensation, the number of years of service on the Board of Management and the return on the assets of the Rheinische Pensionskasse VVaG.

Certain assets are administered under a contractual trust agreement (CTA), providing additional insolvency protection for pension entitlements resulting from direct commitments for the members of the Board of Management in Germany.

As a rule, future pension payments are adjusted by at least 1% per year. Depending on the pension obligation, an additional adjustment may be made if the investment bonus of the Rheinische Pensionskasse VVaG or the consumer price index exceeds 1% per year.

Cap on compensation

The individual performance-related components are capped at the grant date. To comply with the recommendation of the German Corporate Governance Code, a cap has also been agreed for the compensation as a whole. In 2018, the Supervisory Board resolved to include company pension expenditures above and beyond the components already taken into account (fixed annual compensation and variable components) in calculating total target compensation, i.e. the total compensation of a Board of Management member in the case of 100% target attainment.

The cap was set at 1.9 times the respective target compensation. This value was chosen to ensure that compensation will not have to be reduced even if both short-term and long-term compensation reach the maximum possible cap. In the event of such a scenario, it can therefore be expected that the total compensation accrued will not exceed the permitted cap, even when fringe benefits are added, the amount of which cannot be precisely determined in advance. A sample calculation is presented below using the compensation of the Chair of the Board of Management serving as of December 31, 2018:

Sample Calculation of Limited Target Compensation for the Chair of the Board of Management

€ thousand	Target value	Achievable value upon maximum payout of both compensation systems
Fixed annual compensation ¹	1,170	1,170
Short-term variable compensation ²	1,170	2,925
Long-term variable compensation ³	1,521	3,042
Pension service cost ⁴	420	420
Target compensation	4,281	
Fringe benefits ⁵		100
Total		7,657
Limited to 1.9 times the target compensation		8,134

¹ Fixed compensation of CEO converted to twelve months

² Target value: 100% of fixed annual compensation

³ Target value: 130% of fixed annual compensation

⁴ Pension service cost (German Commercial Code) converted to twelve months as CEO

⁵ Hypothetical assumptions/example

Benefits upon termination of service on the Board of Management

Post-contractual noncompete agreements

Post-contractual noncompete agreements exist with the members of the Board of Management, providing for compensatory payments to be made by the company for the duration of these agreements (maximum of two years). The compensatory payment amounts to 100% of the average fixed compensation in the 12 months preceding termination of service.

Change of control

Agreements exist with the members of the Board of Management providing for severance payments to be made in certain circumstances in the event of a change in control. The amount of the severance payments, including any ancillary benefits, in the case of early termination of service on the Board of Management as a result of a change in control is limited to the value of three years' compensation in line with the recommendation in Section 4.2.3 of the German Corporate Governance Code. Such payments do not exceed the compensation payable for the remaining term of the service contract.

Early termination of service on the Board of Management

The amount of the payments, including any ancillary benefits, made upon early termination of service on the Board of Management is limited to the value of two years' compensation in line with the recommendation in Section 4.2.3 of the German Corporate Governance Code.

Unfitness for work

In the event of temporary unfitness for work, members of the Board of Management continue to receive the contractually agreed compensation. Covestro AG may terminate the service contract early if the member has been continuously unfit for work for at least 18 months and is likely to be permanently incapable of fully performing his or her duties (permanent incapacity to work). A disability pension is paid in the event of contract termination before the age of 60 due to permanent incapacity to work. The amount of this disability pension corresponds to the entitlement accrued on the date of contract termination, taking into account a fictitious period of service between that date and the member's 55th birthday where applicable.

Compensation of the Board of Management for the fiscal year

The following paragraphs report the compensation of the Board of Management of Covestro AG for the fiscal year 2018. The members of the Board of Management of Covestro AG are the same as the members of the Board of Management of Covestro Deutschland AG, which became a subsidiary of Covestro AG on September 1, 2015. Compensation is not paid for the members' work on the Board of Management of Covestro Deutschland AG.

As of May 31, 2018, the Supervisory Board initiated early termination of Patrick Thomas' Board of Management contract by mutual agreement. The outstanding remuneration amount was stipulated in the context of a termination agreement, which categorized him as if he had worked until the regular expiration date of the contract (September 30, 2018). Accordingly, he received the pro-rated fixed compensation for the period from June to

September 2018 in the form of a one-time lump-sum payment amounting to €390 thousand, which was paid out at the end of May 2018. For 2018, a target value of €877 thousand was established as short-term variable compensation under the Covestro PSP (equivalent to a pro-rated amount for nine out of 12 months) and will be paid out on the regular payout date at the end of April 2019 in accordance with the Covestro PSP regulations. The claims arising from the 2016–2019 and 2017–2020 tranches of the Prisma long-term compensation program remain unaffected. A target value of €1,140 thousand was determined for the 2018–2021 tranche (equivalent to a pro-rated amount for 9 out of 12 months). All Prisma tranches will be paid out according to the applicable plan regulations on the respective regular payout date.

In the 2018 reporting period, the aggregate compensation for the members of the Board of Management of Covestro AG totaled €14,337 thousand comprising €4,468 thousand in non-performance-related components and €9,869 thousand in performance-related components.

The following table shows the total compensation of the individual members of the Board of Management who served in 2018 according to the German Commercial Code and DRS 17.

Total Board of Management Compensation (German Commercial Code) for the Reporting Period 2018

€ thousand	Fixed annual compensation	Fringe benefits	Short-term variable compensation	Longterm variable compensation ¹	Aggregate compensation
Board of Management members serving as of December 31, 2018					
Dr. Markus Steilemann (Chairman)	916	196	2,346	736	4,194
Dr. Klaus Schäfer	562	35	1,127	736	2,460
Dr. Thomas Toepfer	536	1,717	1,076	938	4,267
Former Board of Management member					
Patrick Thomas	487	19	1,760	1,150	3,416
Total	2,501	1,967	6,309	3,560	14,337

¹ Fair value when granted

Fixed annual compensation

The fixed compensation of Board of Management members was increased as of January 1, 2018, based on the change in the previous year's consumer price index (1.68% from November 2016 to October 2017).

The fixed compensation of all members of the Board of Management in the reporting period totaled €2,501 thousand.

The fringe benefits for the reporting year 2018 include costs totaling €1,696 thousand in variable compensation paid to Dr. Thomas Toepfer in lieu of compensation from his previous employer to which he was no longer entitled.

Short-term variable compensation

In 2018, the short-term variable compensation for all the members of the Board of Management totaled €6,309 thousand after deduction of the solidarity contribution. The solidarity contribution is made by all employees of the companies covered by the respective agreements with the employee representatives to help safeguard jobs at the German sites. For the 2018 reporting period, the contribution amounted to 0.18% of each member's Covestro PSP award. By resolution of the Supervisory Board, this contribution is also withheld from the Board of Management.

Long-term compensation (Aspire and Prisma)

The total compensation according to the German Commercial Code includes long-term stock-based compensation (Prisma) with a fair value when granted of €3,560 thousand.

In accordance with IFRSs, grants of stock-based compensation with a four-year performance period are therefore expensed at their respective fair values over four years starting with the grant year. The associated expense is a part of compensation according to IFRSs. According to IFRSs, the change in the value of existing entitlements under ongoing tranches granted in prior years must be reported as stock-based compensation. As explained above, however, because the payout amount of all remaining Aspire tranches was frozen based on the 2015 closing price, no change in value occurred under these tranches in the reporting year.

As of December 31, 2018, provisions of €7,203 thousand (December 31, 2017: €7,076 thousand) had been established for long-term compensation payable to members of the Board of Management; former members of the Board of Management accounted for €4,273 thousand (December 31, 2017: €1,491 thousand) of this figure.

Long-term Compensation (IFRS)

€ thousand	Board of Management members serving as of December 31, 2018						Former Board of Management member					
	Dr. Markus Steilemann (Chairman)		Dr. Klaus Schäfer (Production and Technology, Labour Director)		Dr. Thomas Toepfer (Finance)		Frank H. Lutz		Patrick Thomas		Total	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Total expenses in the reporting period for long-term compensation ^{1, 2}	781	216	789	216	–	92	810	209	1,641	418	4,021	1,151

¹ Long-term variable compensation from newly earned entitlements includes the Prisma program from the years 2016, 2017, and 2018 amounting to €2,820 thousand (2017: €3,610 thousand) as well as the Aspire program from the year 2015 amounting to €0 thousand (2017: €267 thousand) because this compensation is earned over a period of four fiscal years. It is stated at its pro-rata fair value in 2017 and 2018.

² The previous entitlements from the one-time stock-based Aspire compensation programs of the Bayer Group were frozen on the basis of the 2015 closing price and will therefore not change.

Pension entitlements

The pension service cost recognized for the members of the Board of Management in the reporting year was €966 thousand (previous year: €756 thousand) according to the German Commercial Code, while the current service cost for pension entitlements recognized according to IFRSs was €1,434 thousand (previous year: €1,132 thousand).

Pension obligations are shown in the following table.

The pension service cost differs on account of the different principles applied in measuring the settlement value of pension obligations in accordance with the German Commercial Code and the present value of defined benefit pension obligations in accordance with IFRSs.

Pension Entitlements (German Commercial Code and IFRS)

€ thousand	German Commercial Code				IFRS			
	Pension service cost ¹		Settlement value of pension obligation as of December 31		Service cost for pension entitlements		Present value of defined pension obligation as of December 31	
	2017	2018	2017	2018	2017	2018	2017	2018
Board of Management members serving as of December 31, 2018								
Dr. Markus Steilemann	179	329	815	1,473	310	538	1,571	2,424
Dr. Klaus Schäfer	179	194	2,306	2,884	273	279	3,669	4,200
Dr. Thomas Toepfer	–	121	–	132	–	202	–	201
Former Board of Management member								
Patrick Thomas	398	322	3,864	4,849	549	415	5,082	6,188
Total	756	966	6,985	9,338	1,132	1,434	10,322	13,013

¹ Including company contribution to Bayer Pensionskasse VVaG or Rheinische Pensionskasse VVaG

Disclosures pursuant to the recommendations of the German Corporate Governance Code

The following tables show the compensation and fringe benefits paid for the 2018 reporting period or the prior-year period, including the minimum and maximum achievable variable compensation, and the allocation of compensation for the reporting period or the prior-year period in the line with the recommendations in the February 7, 2017, version of the German Corporate Governance Code.

Compensation and Benefits Granted for the Reporting Period

€ thousand	Board of Management members serving as of December 31, 2018											
	Dr. Markus Steilemann (Chairman)				Dr. Klaus Schäfer (Production and Technology, Labor Director)				Dr. Thomas Toepfer (Finance)			
	Target value 2017	Target value 2018	Min. 2018	Max. ² 2018	Target value 2017	Target value 2018	Min. 2018	Max. ² 2018	Target value 2017	Target value 2018	Min. 2018	Max. ² 2018
Fixed annual compensation	552	916	916	916	552	562	562	562	–	536	536	536
Fringe benefits	435	196	196	196	323	35	35	35	–	1,717	1,717	1,717
Total	987	1,112	1,112	1,112	875	597	597	597	–	2,253	2,253	2,253
Short-term variable compensation	552	1,170	–	2,924	552	562	–	1,404	–	536	–	1,341
Long-term stock-based compensation (2017–2020 Prisma-tranche)	694 ¹				694 ¹				–			
Long-term stock-based compensation (2018–2021 Prisma-tranche)	–	736 ¹	–	1,460	–	736 ¹	–	1,460	–	938 ¹	–	1,859
Total	2,233	3,018	1,112	5,496	2,121	1,895	597	3,461	–	3,727	2,253	5,453
Benefit expense	310	538	538	538	273	279	279	279	–	202	202	202
Total compensation	2,543	3,556	1,650	6,034	2,394	2,174	876	3,740	–	3,929	2,455	5,655

¹ Fair value when granted² Applicable caps have not yet been taken into account in the total maximum amounts. The payout in a single year is limited to 1.9 times the target compensation.

Compensation and Benefits Granted for the Reporting Period

€ thousand	Former Board of Management member			
	Patrick Thomas			
	Target value 2017	Target value 2018	Min. 2018	Max. ² 2018
Fixed annual compensation	1,150	487	487	487
Fringe benefits	70	19	19	19
Total	1,220	506	506	506
Short-term variable compensation	1,150	877	–	2,193
Long-term stock-based compensation (2017–2020 Prisma-tranche)	1,447 ¹			
Long-term stock-based compensation (2018–2021 Prisma-tranche)		1,150 ¹	–	2,281
Total	3,817	2,533	506	4,980
Benefit expense	549	415	415	415
Total compensation	4,366	2,948	921	5,395

¹ Fair value when granted² Applicable caps have not yet been taken into account in the total maximum amounts. The payout in a single year is limited to 1.9 times the target compensation.

Allocation of Compensation for the Reporting Period

€ thousand	Board of Management members serving as of December 31, 2018						Former Board of Management member	
	Dr. Markus Steilemann (Chairman)		Dr. Klaus Schäfer (Production and Technology, Labor Director)		Dr. Thomas Toepfer (Finance)		Patrick Thomas	
	2017	2018	2017	2018	2017	2018	2017	2018
Fixed annual compensation	552	916	552	562	–	536	1,150	487
Fringe benefits	435	196	323	35	–	1,717	70	19
Total	987	1,112	875	597	–	2,253	1,220	506
Short-term variable compensation	1,279	2,346	1,279	1,127	–	1,076	2,664	1,760
2013–2016 Aspire-tranche ¹	103 ²	–	223 ²	–	–	–	978	–
2014–2017 Aspire-tranche ¹		98 ²		130				609
Total	2,369	3,556	2,377	1,854	–	3,329	4,862³	2,875³
Benefit expense	310	538	273	279	–	202	549	415
Total compensation	2,679	4,094	2,650	2,133	–	3,531	5,411	3,290

¹ The depicted inflow from the respective tranches of the one-time stock-based Aspire compensation program of the Bayer Group will take place in the payout year. The payout itself was made for a performance period that mostly occurred prior to the start of the Board of Management term.

² Payment was made partially outside Germany in local currency on the basis of a theoretical net salary in Germany.

³ In addition, Patrick Thomas received a payout of the long-term stock-based compensation in the form of virtual Bayer shares in the amount of €959 thousand (2017: €164 thousand) in his capacity as subgroup CEO in the Bayer Group for the 2014 and 2013 fiscal year, respectively.

In 2018, the former Management Board member Frank H. Lutz received a payment of €186 thousand for the 2014–2017 tranche of the long-term compensation program Aspire.

Compensation of former members of the Board of Management

In 2018, former members of the Board of Management received aggregate compensation of €674 thousand. The aggregate compensation included a one-time lump sum payment of €390 thousand for Patrick Thomas and a pro-rata compensation of €284 thousand for the post-contractual noncompete clause for Frank H. Lutz that was limited to one year. For current pensions, a provision of €668 thousand is recognized in the consolidated financial statements as of December 31, 2018, for Frank H. Lutz. A provision of €465 thousand is recognized for this purpose in the financial statements of Covestro AG.

Compensation of the Supervisory Board

The Supervisory Board is compensated according to the relevant provisions of the Articles of Incorporation.

The members of the Supervisory Board each receive fixed annual compensation of €100 thousand plus reimbursement of their expenses.

In accordance with the recommendations of the German Corporate Governance Code, additional compensation is paid to the Supervisory Board Chair and Vice Chair, and for chairing and membership in committees. The Chair of the Supervisory Board receives fixed annual compensation of €300 thousand, the Vice Chair €150 thousand. The other members of the Supervisory Board are entitled to additional compensation for membership in or chairmanship of committees. The Chair of the Audit Committee receives an additional €50 thousand, the other members of the Audit Committee €25 thousand each. The chairs of the remaining committees receive €30 thousand each, the other members of those committees €20 thousand each. No additional compensation is paid for membership in the Nominations Committee. Work on committees will be considered for no more than two committees. receives compensation only for the two committees with the highest compensation. If changes are made to the Supervisory Board and/or its committees during the year, members receive compensation on a pro-rated basis. The members of the Supervisory Board also receive an attendance fee of €1 thousand each time they personally attend a meeting of the Supervisory Board or a committee. The attendance fee is limited to €1 thousand per day.

The members of the Supervisory Board gave a voluntary commitment that they will each purchase Covestro shares for 25% of their fixed compensation, including any compensation for committee membership (before taxes) and hold these shares for as long as they remain members of the Supervisory Board. Following in-depth discussions, the Supervisory Board resolved in 2018 to rescind the voluntary commitment to purchase shares in consideration of the insider trading risks associated with stock purchases. Only the obligation to hold previously acquired shares for the duration of membership in the Supervisory Board remains unchanged.

Compensation of the Supervisory Board for the fiscal year

The following table outlines the components of each Covestro AG Supervisory Board member's compensation for the 2018 reporting period and the prior-year period.

Compensation of the Members of the Supervisory Board of Covestro AG

€ thousand	Fixed compensation		Attendance fee		Total	
	2017	2018	2017	2018	2017	2018
Ferdinando Falco Beccalli	100	100	5	4	105	104
Dr. Christine Bortenlänger	100	100	5	5	105	105
Johannes Dietsch	145	145	11	10	156	155
Dr.-Ing. Thomas Fischer ¹	120	–	8	–	128	–
Peter Hausmann	145	145	9	8	154	153
Petra Kronen (Vice Chair)	150	150	12	10	162	160
Irena Küstner	125	125	10	9	135	134
Dr. Ulrich Liman ²	–	120	–	7	–	127
Prof. Dr. Rolf Nonnenmacher (Chair of the Audit Committee)	150	150	9	9	159	159
Dr. Richard Pott (Chair)	300	300	13	10	313	310
Regine Stachelhaus	120	120	7	5	127	125
Marc Stothfang ³	89	100	6	5	95	105
Frank Werth	100	100	6	5	106	105
Sabine Wirtz ⁴	11	–	–	–	11	–
Total	1,655	1,655	101	87	1,756	1,742

¹ Member of the Supervisory Board until December 2017

² Member of the Supervisory Board since January 2018

³ Member of the Supervisory Board since February 2017

⁴ Member of the Supervisory Board until February 2017

In addition to their compensation as members of the Supervisory Board, those employee representatives who are employees of Covestro Group companies receive compensation unrelated to their service on the Supervisory Board. The total amount of such compensation was €925 thousand (previous year: €915 thousand).

No compensation was paid or benefits granted to members of the Supervisory Board for personally performed services such as consulting or agency services. In addition, the company has purchased insurance for the members of the Supervisory Board to cover their personal liability arising from their service on the Supervisory Board. This includes a deductible that is in line with the GCGC recommendation.

Other information

There were no advances or loans to members of the Board of Management or the Supervisory Board outstanding as of either December 31, 2017, or December 31, 2018.